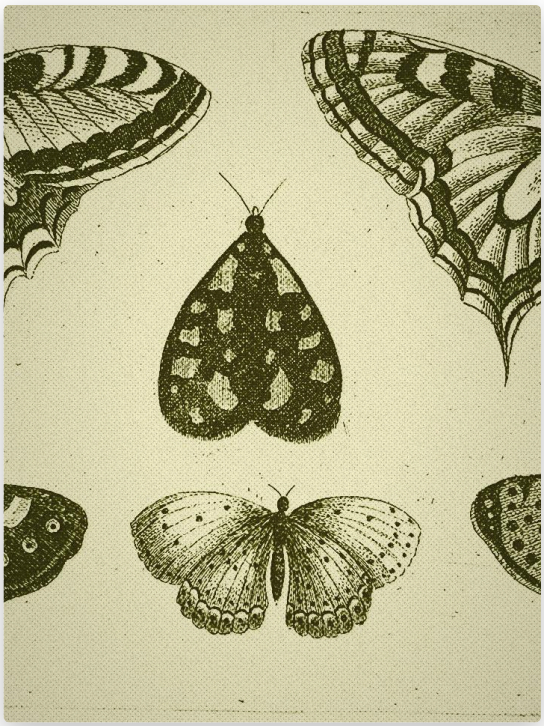
FORM S-1 · REGISTRATION STATEMENT

Impinj Inc

IPO priced 2016-07-21 · $14.00 a share · PI



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AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON APRIL 21, 2011

REGISTRATION NO. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

IMPINJ, INC.

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

Delaware	**3679**	**91-2041398**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

701 NORTH 34TH STREET, SUITE 300

SEATTLE, WASHINGTON 98103

(206) 517-5300

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices) William T. Colleran, Ph.D.

PRESIDENT AND CHIEF EXECUTIVE OFFICER

701 NORTH 34TH STREET, SUITE 300

SEATTLE, WASHINGTON 98103

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(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ¨ If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨ If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨ If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨ Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	¨		Accelerated filer	¨
Non-accelerated filer	x	(Do not check if a smaller reporting company)	Smaller reporting company	¨

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	**Proposed maximum aggregate offering price(1)**	**Amount of registration fee**
Common Stock, $0.001 par value per share	100,000,000	$11,610.00

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended. Includes shares that the underwriters have the option to purchase to cover over-allotments, if any.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We and the selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we and the selling stockholders are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion) Issued April 21, 2011 Shares COMMON STOCK ***Impinj, Inc. is offering shares of its common stock and the selling stockholders are offering shares of common stock. We will not receive any proceeds from the sale of shares by the selling stockholders. This is our initial public offering and no public market exists for our shares. We anticipate that the initial public offering price will be between $ and $ per share.***

We intend to apply for listing of our common stock on under the symbol " ".

Investing in the common stock involves risks. See "Risk Factors" beginning on page 10.

PRICE $ A SHARE

	PRICE TO PUBLIC	UNDERWRITINGDISCOUNTS ANDCOMMISSIONS	PROCEEDS TOCOMPANY	PROCEEDS TOSELLINGSTOCKHOLDERS
Per Share	*$*		*$*	
Total	*$*		*$*	

Impinj and the selling stockholders have granted the underwriters the right to purchase up to an additional shares of common stock to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares to purchasers on , 2011.

MORGAN STANLEY	*J.P. MORGAN*

NEEDHAM & COMPANY, LLC PACIFIC CREST SECURITIES RAYMOND JAMES
, 2011

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We, the selling stockholders and the underwriters have not authorized anyone to provide any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We, the selling stockholders and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

Until , 2011, all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Prospectus Summary

PROSPECTUS SUMMARY *This summary highlights selected information contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. It does not contain all of the information that may be important to you and your investment decision. You should carefully read this entire prospectus, including the matters set forth under "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes.*

IMPINJ, INC.

Overview

Impinj is the leading provider of UHF RFID solutions for identifying, locating and authenticating items. We believe our technology platform, known as GrandPrix, is the most comprehensive and widely adopted in our industry. GrandPrix's key elements are Monza tag ICs, Indy reader ICs and Speedway readers and subsystems. RFID systems built on GrandPrix deliver real-time information about tagged items, thereby enabling applications and analytics designed to improve business decisions and enhance consumer experience. Leading retail, apparel, pharmaceutical, food and beverage, technology and logistics companies as well as government agencies rely on our GrandPrix platform. We are the technology leader in our industry, with 90 issued and allowed U.S. patents and 77 pending U.S. patent applications as of April 15, 2011. We have sold over two billion Monza tag ICs since its introduction in 2005, including 940 million in 2010 alone.

We focus exclusively on ultra-high frequency, or UHF, radio-frequency identification, or RFID, solutions. UHF RFID enables writing individualized information to and reading information from tagged items without line of sight and at longer range, higher speed, lower cost and with more automation than any competing technology. We embrace the global industry standard for UHF RFID, called UHF Gen2, which we extend through our leadership in the standards-setting process and enhance with our proprietary technologies and deep domain expertise. UHF Gen2 is the fastest growing segment of the RFID market. UHF Gen2 systems are ideally suited for high-volume, item-level applications that require low-cost consumable tags, such as retail inventory management, pharmaceutical authentication and airline baggage tracking. VDC Research Group, or VDC, projects the number of UHF Gen2 ICs shipped will grow from 1.6 billion in 2010 to 41.0 billion in 2015, a compound annual growth rate, or CAGR, of 92.2%.

From 2009 to 2010 unit sales of our Monza UHF Gen2 tag ICs increased by 279%. We believe that Impinj leads the market in UHF Gen2 tag ICs, reader ICs and stationary readers with estimated 60%, 86% and 25% share, respectively. We estimate that Impinj enables more than 70% of the UHF Gen2 reader market when we combine the share of our Speedway reader with that of other readers based on our Indy reader ICs. We believe that end users' return on investment, or ROI, from UHF Gen2 systems and our market leadership position are driving our rapid growth.

We sell to a broad and well-established ecosystem of more than 450 inlay manufacturers, reader original equipment manufacturers, or OEMs, distributors, system integrators, value-added resellers, or VARs, and other technology companies, as well as to end users. Our ecosystem relies on the elements of our GrandPrix platform to deliver UHF Gen2 solutions to end users in wide-ranging markets, such as Walmart and Banana Republic for apparel inventory management, Coca-Cola for product authentication in next-generation beverage dispensers and LS Industrial Systems for tracking and authenticating pharmaceuticals.

We believe current applications of UHF Gen2 represent the tip of the iceberg for this technology. We envision a future when a broad array of everyday items is linked to networked information systems, thereby -1- enabling significantly improved visibility, understanding and analysis of those items' location and attributes. This global network of connected objects is often referred to as the "Internet of Things." We believe that UHF Gen2 technology, powered by Impinj, is helping to make that vision a reality.

We use third-party foundries and subcontractors to produce our ICs and contract manufacturers to assemble our readers and subsystems. This capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and solutions while continuing to build our reputation as the UHF Gen2 leader. For 2009, 2010 and the three months ended March 31, 2011, our revenue was $20.8 million, $31.8 million and $12.3 million, respectively, and our net losses from continuing operations were $9.9 million, $11.4 million and $1.8 million, respectively.

The RFID Industry

RFID technology has been employed for decades. Legacy RFID technologies, such as those that operate in the low frequency, or LF, and high frequency, or HF, bands have been employed for years in specialized applications such as animal tagging and in security applications such as access cards. More recently, the market for UHF systems has grown rapidly as companies deploy enterprise-wide UHF RFID systems to realize the ROI those systems deliver.

UHF Gen2 RFID

The development of the UHF Gen2 standard was, and continues to be, driven by end-user requirements. A critical end-user requirement is that UHF Gen2 be the single worldwide standard for retail RFID. In contrast, technology providers have typically driven specifications for other RFID standards, often leading to competing standards that end users are reluctant to adopt. GS1 EPCglobal, a nonprofit industry association, created the UHF Gen2 standard and a corresponding electronic product code, or EPC, numbering system to assign unique numbers to UHF Gen2-tagged items. GS1 EPCglobal also created other standards and guidelines related to data storing, data sharing, reader operations and tag applications. As of March 31, 2011, GS1 EPCglobal had over

950 end-user members, including many of the world's leading retail, apparel, logistics and pharmaceutical companies. With their lower power requirements, superior performance, lower cost and single industry standard, UHF Gen2 systems are ideally suited for item-level, high-volume applications. These applications generally require ongoing purchases of consumable tags that uniquely identify items.

We believe that apparel retailers are adopting UHF Gen2 systems because of demonstrable ROI. For example, UHF Gen2 systems can identify every tagged garment in a stack in a fraction of a second, enabling daily store-floor inventorying, even while customers remain in the store. Item-level, real-time inventory visibility allows retailers to reduce out-of-stocks and overstocks, carry less inventory, better meet consumers' needs and make better business decisions. University of Arkansas studies demonstrate that RFID item tagging significantly improves store-floor inventory accuracy.

We believe demand for UHF Gen2 systems will grow both by further penetration into existing applications such as apparel tagging and by expansion into myriad other high-volume tagging applications. In consumer retail, UHF Gen2 growth prospects include tagging of consumer electronics, cosmetics and jewelry. A number of governments have mandated UHF Gen2-based tagging of automobiles, pharmaceuticals and liquor. Manufacturing logistics, postal applications and food safety exhibit great promise. These examples represent just some of the applications that we believe will contribute to sustained market growth.

Unlike other semiconductor-based products, we believe the consumable nature of UHF Gen2 tags will drive sustained volume growth. Furthermore, we expect that a number of trends, including ubiquitous connectivity, internet-enabled commerce and the need to identify, authenticate and track items in increasingly complex -2- business environments will accelerate broader adoption of UHF Gen2 systems. VDC projects the number of UHF Gen2 ICs shipped will grow from 1.6 billion in 2010 to 41.0 billion in 2015, a CAGR of 92.2%.

Our GrandPrix Platform

We believe that Impinj has the only UHF RFID technology platform, industry-leading product performance and leading market share in each of our product lines. Our GrandPrix platform tightly integrates numerous elements, including Monza tag ICs, reference tag antenna designs, reader antennas, Indy reader ICs, Speedway readers and subsystems, OEM reader reference designs, software-development kits, or SDKs, application-programming interfaces, or APIs, application software and services. Our ecosystem partners develop GrandPrix-based UHF Gen2 systems and deploy them at leading retail, apparel, pharmaceutical, food and beverage, technology and logistics enterprises. GrandPrix provides superior performance, proprietary system enhancements and a comprehensive development environment. Our integrated GrandPrix platform offers numerous benefits to our ecosystem partners and end users, including:

- ***Superior performance***. We believe that each of our products, individually, has best-in-class performance, and when integrated together delivers the best system performance in the industry. We base our belief both on field experience and on industry data, such as the January 2011 ABI Research passive UHF tag Vendor Matrix IC ranking that placed us first in both innovation and implementation.

- ***Proprietary system enhancements***. We use our deep domain expertise to solve the most difficult challenges in UHF Gen2 and embed our proprietary solutions into GrandPrix. For example, traditional UHF tags are not readable when the tag antenna is aligned end-on to the reader antenna. To solve this problem we developed our patent-pending True3D technology that enables orientation-insensitive tags.

- ***Comprehensive development environment***. We strive to empower our ecosystem partners to develop complete systems for end users and to further their preference for our GrandPrix platform. For our Speedway and Indy products we offer development environments, easy-to-use APIs, SDKs, software drivers and libraries, upgrade agents, sample application code and application software.

Our Competitive Strengths

We are the leading provider of UHF Gen2 solutions and believe we can maintain this position by leveraging our competitive strengths, including:

- ***Our market and technology leadership***. Our exclusive focus on the high-growth UHF Gen2 market and our resulting deep domain knowledge and systems engineering expertise has allowed us to become the market leader. Impinj leads the market in UHF Gen2 tag ICs, reader ICs and stationary readers with estimated 60%, 86% and 25% share, respectively, based on VDC data. We believe our exclusive focus on the UHF Gen2 market allows us to be more nimble, innovation-focused and better able to identify and capture opportunities.

- ***Our platform approach***. We believe that Impinj is the only company that provides an integrated UHF Gen2 product suite. When our ecosystem partners deploy GrandPrix-based systems as an integrated whole, end users benefit from system performance and ease-of-use that we believe cannot be equaled by "mix and match" implementations. In addition, the knowledge we gain from developing one component of a UHF Gen2 system often allows us to optimize other components while improving our domain expertise, which makes us an attractive partner in the critical "design-in" phase of end users' vendor selection processes.

- ***Our intellectual property portfolio***. We own a strong intellectual property portfolio with 90 issued and allowed U.S. patents and 77 U.S. patent applications as of April 15, 2011. These patents cover UHF

Gen2 system design, tag ICs, reader ICs, readers, software, firmware and antenna designs.

- ***Our standards leadership***. We have taken leadership roles in establishing RFID standards at worldwide governing bodies, including GS1 EPCglobal. Our active role in driving standardization of RFID technology has enabled us to maintain our leadership in UHF Gen2 products and to promote the adoption of our technical innovations in the marketplace.

- ***Our broad and well-established ecosystem***. We sell to an ecosystem of more than 450 inlay manufacturers, reader OEMs, distributors, system integrators, VARs and other technology companies. In addition, end users seek us out for our domain knowledge and systems engineering expertise to develop applications that are tailored to their needs. We leverage this understanding of end users' needs to secure design wins with inlay manufacturers, reader OEMs and end users.

- ***Our capital-efficient operating model***. We use third-party foundries and assembly subcontractors to produce our ICs, and we use contract manufacturers to assemble our readers and subsystems. This capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and new solutions, while continuing to build our reputation as the UHF Gen2 leader.

Our Strategy

We strive to accelerate UHF Gen2 market adoption and extend our GrandPrix platform's leadership while growing revenue profitably. Key elements of our strategy are to:

- ***Deliver the most innovative UHF Gen2 solutions.*** We will continue to innovate to extend our significant UHF Gen2 technology leadership. Given the multi-year lifecycle of UHF Gen2 deployments, we believe that design wins earned today will engender continued customer preference for systems that employ our products in the future.

- ***Embrace and extend the UHF Gen2 standard.*** We intend to continue our active leadership role within GS1 EPCglobal because we believe this role enables us to extend the UHF Gen2 standard and influence its future direction. We believe that the insights we gain through our involvement in the standards-setting process allow us to deliver first-to-market, standards-compliant products with the potential for broad market acceptance.

- ***Commercialize new use cases.*** We intend to continue to actively engage customers and end users to identify key market needs and to develop or enable application-specific solutions that address large market opportunities.

- ***Expand and enable our implementation and go-to-market partnerships.*** We intend to continue to broaden and deepen our relationships with inlay manufacturers, reader OEMs, distributors, VARs, system integrators, software providers and other technology companies, as well as with end users. By leveraging these relationships we expect to continue to identify, target and deliver complete solutions to end users in existing and new markets and applications.

Risks Associated with Our Business

Our business and our ability to execute our strategy are subject to many risks that you should be aware of before you decide to buy our common stock. These risks are discussed more fully in "Risk Factors" beginning on page 10 and include, among others:

- The adoption rate for UHF Gen2 technology has been slower than anticipated or forecasted by both us and industry sources. If the market for UHF Gen2 products does not continue to develop, or develops more slowly than we expect, our business will suffer.

- Our market is very competitive, and if we are unsuccessful developing new products and enhancements, our customers or end users do not select our UHF Gen2 products to be designed into their products or systems or we fail to compete successfully, our business and operating results will suffer.

- The UHF Gen2 market has been characterized by significant price erosion. If such erosion continues and we are unable to offset any reductions in our average selling prices by increasing our sales volumes or introducing new products with higher margins, our revenue and gross margins will suffer.

- We rely on a limited number of third parties to manufacture, assemble and test our products, particularly our sole-source supplier of Monza wafers, and we do not have any long-term supply contracts. If the supply of our products is disrupted, fulfilling our customer orders may be adversely affected and our reputation, revenue and growth prospects could be impaired.

- We rely on third party inlay manufacturers, reader OEMs, distributors, VARs and system integrators to sell our products, and we have experienced significant customer concentration in certain of our product lines. If we are unable to maintain our relationships with our channel partners or develop relationships with new channel partners, our business, financial condition and operating results could be harmed.

Corporate Information

We were incorporated in Delaware in April 2000. Our principal executive office is located at 701 North 34th Street, Suite 300, Seattle, Washington 98103. Our telephone number is (206) 517-5300. Our website address is www.impinj.com. Information contained in, or that can be accessed through, our website is not a part of, and is not incorporated into, this prospectus.

Unless the context indicates otherwise, as used in this prospectus, the terms "Impinj," "we," "us" and "our" refer to Impinj, Inc. We use Impinj®, the Impinj logo, the Powered by Impinj® shield logo, GrandPrix™, Monza®, Indy®, Speedway®, the checkered flag logo and other marks as trademarks in the United States and other countries. This prospectus contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

The Offering

Common stock offered by us	shares
Common stock offered by the selling stockholders	shares
Total	shares

Common stock outstanding after this offering	shares
Over-allotment option	shares
Risk factors	See “Risk Factors” beginning on page 10 and other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.
Use of proceeds	We expect to use approximately $25 million of the net proceeds from this offering to repay indebtedness and the balance of the net proceeds for further product development, working capital, other general corporate purposes and the costs associated with being a public company. We will not receive any of the proceeds from the sale of common stock by the selling stockholders. See “Use of Proceeds.”
Proposed symbol	

The number of shares of our common stock outstanding immediately after this offering is based on 132,776,294 shares of our common stock outstanding as of March 31, 2011. This number excludes, as of March 31, 2011:

- 21,914,388 shares of common stock issuable upon the exercise of outstanding options with a weighted average exercise price of $0.11 per share;
- 1,004,155 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan as of March 31, 2011; provided, however, that immediately upon the signing of the underwriting agreement for this offering, our 2010 Equity Incentive Plan will terminate so that no further awards may be granted under our 2010 Equity Incentive Plan;
- an aggregate of up to shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan and 2011 Employee Stock Purchase Plan, each of which will become effective immediately upon the signing of the underwriting agreement for this offering;
- an aggregate of 2,798,029 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying our subordinated convertible promissory notes (which notes will be repaid using a portion of the net proceeds of the offering contemplated by this prospectus);
- an aggregate of 890,721 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share (which warrants will be exercised automatically on a net exercise basis in connection with the offering contemplated by this prospectus if the initial per share price to public exceeds the exercise price of the warrants); and

- an aggregate of 260,280 shares of our Series E preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share and an aggregate of 300,000 shares of our common stock underlying warrants with an exercise price of $0.21 per share.

Except as otherwise indicated, all information in this prospectus assumes:

- the conversion of all our outstanding shares of convertible preferred stock into 97,465,284 shares of common stock immediately prior to the closing of this offering;
- the filing of our amended and restated certificate of incorporation, which will occur immediately prior to the closing of this offering; and
- no exercise of the underwriters’ over-allotment option.

In addition, we may choose to effect a reverse stock split prior to the effectiveness of this offering. This prospectus does not reflect the effects of this reverse stock split.

Summary Financial Data

We have derived the following summary of our statements of operations data for the years ended December 31, 2008, 2009 and 2010 from our audited financial statements appearing elsewhere in this prospectus. We derived the unaudited statements of operations data for the three months ended March 31, 2010 and 2011 and the balance sheet data as of March 31, 2011 from our unaudited interim financial statements included elsewhere in this prospectus. In the opinion of management, the unaudited financial statements reflect all adjustments, which include only normal recurring adjustments necessary to a fair statement of our results of operations and financial position. Our historical results are not necessarily indicative of the results that may be expected in the future. The summary of our financial data set forth below should be read together with our financial statements and the related notes to those statements, as well as the sections captioned “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” appearing elsewhere in this prospectus.

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
	(In thousands, except per share amounts)				
Revenue:					

Product revenue	$15,457	$10,305	$29,221	$4,640	$11,397
Development, service and licensing revenue	9,586	10,511	2,576	500	868
Total revenue	25,043	20,816	31,797	5,140	12,265
Costs of revenue:					
Cost of product revenue	10,791	6,782	17,008	2,455	6,325
Cost of development, service and licensing revenue	2,006	2,219	603	111	472
Total cost of revenue	12,797	9,001	17,611	2,566	6,797
Gross profit	12,246	11,815	14,186	2,574	5,468
Operating expenses:					
Research development	12,257	9,492	10,662	2,389	2,781
Selling and marketing	7,375	7,320	8,256	1,957	2,375
General and administrative	6,711	5,271	5,525	1,241	1,594
Total operating expenses	26,343	22,083	24,503	5,587	6,750
Loss from operations	(14,097)	(10,268)	(10,317)	(3,013)	(1,282)
Interest income (expense) and other, net	316	67	(978)	(55)	(495)
Net loss before income tax (expense) benefit	(13,781)	(10,201)	(11,295)	(3,068)	(1,777)
Income tax (expense) benefit	644	50	(90)	(19)	(24)
Loss from continuing operations	(13,137)	(10,151)	(11,385)	(3,087)	(1,801)
Income from discontinued operations, net of tax	1,275	291	—	—	—
Net loss	$(11,862)	$(9,860)	$(11,385)	$(3,087)	$(1,801)
Net loss attributable to common stockholders	$(19,481)	$(18,419)	$(19,943)	$(5,227)	$(3,838)
Basic and diluted loss per common share:					
Loss from continuing operations	$(0.70)	$(0.56)	$(0.58)	$(0.15)	$(0.11)
Income from discontinued operations	0.06	0.01	—	—	—
Net loss	$(0.64)	$(0.55)	$(0.58)	$(0.15)	$(0.11)
Weighted-average number of shares used in per share amounts (in thousands):	30,509	33,527	34,127	33,723	34,824
Pro forma net loss per share, basic and diluted			$(0.09)		$(0.01)
Pro forma weighted average shares outstanding, basic and diluted[1]			131,592		132,289

	As of March 31, 2011	
	Actual	Pro Forma As Adjusted[2]
	(Unaudited)	
	(In thousands)	
Balance Sheet Data:		
Cash, cash equivalents and short-term marketable securities	$12,052	$
Working capital	18,779	
Total assets	43,121	
Total long-term debt	18,438	
Redeemable convertible preferred stock	160,197	
Accumulated deficit	(155,830)	
Total stockholders' deficit	(155,810)	

(1) Assumes the conversion of all outstanding shares of convertible preferred stock outstanding as of March 31, 2011 into common stock.

Reflects, on a pro forma basis, the automatic conversion described in footnote (1) and, on an as adjusted basis, the sale by us of shares of common stock offered by this prospectus at an assumed initial price to public of $ per share, the midpoint of the range set forth on the cover of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses, and the application of such proceeds as described in the section captioned "Use of Proceeds." Each $1.00 increase (decrease) in the assumed initial price to public of $ per share, would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders' deficit by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of in the number of shares offered by us would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders' deficit by approximately $ million, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is

(2) illustrative only and will adjust based on the actual initial price to public and other terms of this offering determined at pricing.

Risk Factors

RISK FACTORS *Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, which we believe are the material risks of our business and this offering, before making an investment decision. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition, operating results or growth prospects could be harmed by any of these risks. In that event, the trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing these risks, you should also refer to all of the other information contained in this prospectus, including our financial statements and related notes.*

Risks Related to Our Business and Industry

Market acceptance of UHF Gen2 solutions is uncertain. If the market for UHF Gen2 solutions does not continue to develop, or develops more slowly than we expect, our business will suffer.

The market for UHF Gen2 solutions is relatively new and, to a large extent, unproven. Whether UHF Gen2 solutions will achieve and sustain high demand and market acceptance is uncertain. The adoption rate for UHF Gen2 technology has been slower than anticipated or forecasted by both us and industry sources. For example, beginning in the early 2000s, when retailers, such as Wal-Mart Stores, Inc., or Walmart, piloted UHF Gen2 for pallet- and case-level tagging to improve the efficiency of their supply chains, their initiatives failed to gain significant traction. Near-term growth of UHF Gen2 item-tagging solutions depends on large organizations with market influence, such as Walmart and Banana Republic, a division of Gap Inc., continuing to adopt and deploy UHF Gen2 item-tagging solutions. The growth of the market for UHF Gen2 solutions will depend upon further adoption within the retail industry, as well as adoption in other industries and by government agencies. If these market leading early adopters fail to realize demonstrable ROI through expanded adoption of UHF Gen2 solutions or otherwise elect to abandon UHF Gen2 solutions for any reason, overall market acceptance of these solutions will be materially and adversely affected. Any widespread delay, slowdown or failure by organizations implementing UHF Gen2 solutions could materially and adversely affect our business, operating results, financial condition and prospects.

End users and our prospective customers may not be familiar with our solutions or UHF Gen2 solutions in general, or may use other products and technologies to identify, authenticate, track and prevent loss of their assets. Additionally, even if our prospective customers are familiar with RFID technology and our solutions, a negative perception of, or experience with, RFID technology or of a competitor's RFID products may deter them from adopting UHF Gen2 technology or our solutions. Businesses, government agencies and other organizations may need education on the benefits of using UHF Gen2 solutions in their operations. These educational efforts may not be successful, and organizations may decide that the costs of adopting UHF Gen2 solutions outweigh the benefits. In addition, increased market adoption of UHF Gen2 solutions is likely to depend in part upon the continued decline in selling prices for UHF Gen2 products and infrastructure, particularly UHF Gen2 tags. Failure of organizations to adopt UHF Gen2 solutions for any reason could hurt the development of the UHF Gen2 market and, consequently, impair our business and prospects.

We have a history of losses, and we expect to incur additional losses in the future. We cannot be certain that we will achieve or sustain profitability.

We have never been profitable, and we expect to continue to incur additional losses in the future. We incurred net losses of $11.9 million, $9.9 million, $11.4 million and $1.8 million in 2008, 2009, 2010 and the three months ended March 31, 2011, respectively. As of March 31, 2011, we had an accumulated deficit of $155.8 million. Our ability to achieve or sustain profitability is based on numerous factors, many of which are out of our control, including the continued widespread adoption of UHF Gen2 solutions, our market share and margins. We may never be able to generate sufficient revenue or sell a sufficient volume of UHF Gen2 products to achieve or sustain profitability.

Our market is very competitive. If we fail to compete successfully, our business and operating results will suffer.

We face significant competition in the UHF Gen2 industry from both established and emerging players. We believe our principal competitors are NXP B.V., or NXP, and Alien Technology Corporation, or Alien, in the market for tag ICs; austriamicrosystems AG and Phychips Inc. in reader ICs; and Motorola Solutions, Inc., or Motorola, Alien, Federal Signal Corporation, Intermec Technologies Corporation, or Intermec, and Trimble Navigation Limited, or Trimble, in UHF Gen2 readers. In addition, our customers, including inlay manufacturers, reader OEMs and distributors, may decide to enter our market and compete with us rather than purchase our products, which would not only reduce our customer base but also increase competition in the market, adversely affecting our operating results, business and prospects. Companies in adjacent markets or newly formed companies may decide to enter the UHF Gen2 market.

Because the market for UHF Gen2 solutions is new and evolving, winning key end-user and customer accounts early in the development of the market will be critical to growing our business. Competition for key potential customers is intense. Additionally, end users that use competing products and technologies may face high switching costs, which may affect our and our channel partners' ability to successfully convert them to our products. Failure to

obtain orders from key customers and end users, for competitive reasons or otherwise, would materially adversely affect our operating results, business and prospects.

Some of our competitors have longer operating histories and significantly greater financial, research and development, marketing and other resources than us. As a result, some of these competitors are able to devote greater resources to the development, promotion, sale and support of their products. These competitors may also have the ability to provide discounted pricing on their products to gain market share. In addition, consolidation in the UHF Gen2 industry could intensify the competitive pressures that we face. Many of our existing and potential competitors may be better positioned than we are to acquire other companies, technologies or products.

Some of our customers have policies for maintaining diverse supplier bases. Many of these customers desire to enhance competition and maintain multiple providers of UHF Gen2 products and thus do not have an interest in purchasing exclusively from one supplier or promoting a particular brand. Our ability to increase order sizes from these customers and maintain or increase our market share is constrained by these policies. In addition, any decline in quality or availability of our products or any increase in the number of suppliers that such a customer uses may decrease demand for our products and adversely affect our operating results, business and prospects.

Our ability to compete successfully depends on numerous factors, including our ability to:

- maintain our market leadership position and the strength of our brand in UHF Gen2;
- provide an integrated suite of UHF Gen2 products;
- remain an active leader in the standards-setting process and promote relevant standards;
- maintain and expand our relationships with channel partners;
- secure products in large volume in a cost-effective and timely manner from our suppliers;
- develop innovative, differentiated, high-performance solutions relative to our competitors' solutions; and
- protect our intellectual property.

We cannot assure you that our solutions will continue to compete favorably or that we will be successful in the face of increasing competition from new products and enhancements introduced by our existing competitors or new companies entering our market. In addition, we cannot assure you that our competitors do not have or -11- will not develop processes or product designs that currently or in the future will enable them to produce competitive products at lower costs than ours. Any failure to compete successfully would materially adversely affect our business, prospects, operating results and financial condition.

We rely on a limited number of providers to manufacture, assemble and test our products, and if we fail to obtain quality products in a timely and cost effective matter, our operating results and growth prospects would be adversely affected.

We do not own or operate manufacturing facilities. Currently, all of our Monza wafers are manufactured by Taiwan Semiconductor Manufacturing Company, Limited, or TSMC; all of our Indy wafers are manufactured by Tower Semiconductors Ltd., or TowerJazz; and all of our Speedway readers are manufactured by Plexus Corp., or Plexus. We also use contractors for assembly and testing. We do not control our suppliers' ability or willingness to meet our supply requirements.

Currently, we do not have long term supply contracts with TSMC, TowerJazz or Plexus, and our suppliers are not required to supply us products for any specific period or in any specific quantity. Suppliers can allocate production capacity to other companies' products and reduce deliveries to us on short notice. Our suppliers may have long-term agreements with others or allocate capacity to other companies for strategic reasons, which could impair our ability to secure sufficient supply of products for sale.

We place orders for products with some of our suppliers approximately four to five months prior to the anticipated delivery date, with order volumes based on our forecasts of customer demand. Accordingly, if we inaccurately forecast demand for our products, we may be unable to obtain adequate and cost-effective foundry or assembly capacity to meet our customers' delivery requirements, or we may accumulate excessive inventory.

Manufacturing capacity may not be available when needed or at reasonable prices. For example, in the last three quarters of 2010 we experienced significant shortages in the delivery of Monza wafers from TSMC relative to our submitted purchase orders given high industry demand for foundry capacity. Such shortages adversely affected our ability to meet our obligations to our customers and, in some cases, caused customers to cancel orders, qualify alternative sources of supply or purchase from our competitors. In addition, in response to the recent shortage or future shortages, our customers may overbuy our products, which may artificially inflate sales in near-term periods while leading to sales declines in future periods as our customers burn through accumulated inventory.

If our suppliers fail to deliver products at reasonable prices or satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, if supplier capacity diminishes, including from a catastrophic loss of facilities or otherwise, we could have difficulty fulfilling our orders, our revenue could decline and our growth prospects could be impaired. We anticipate requiring 9 to 12 months to transition our foundry or assembly services to new providers. Such a transition would likely require a qualification process by our customers or end users, which could also adversely affect our ability to sell our solutions and operating results.

Average selling prices of our products could decrease substantially, which could have a material adverse effect on our revenue and gross margins.

The UHF Gen2 market has been characterized by significant price erosion. We may experience substantial fluctuations in future operating results due to the decline of our average selling prices, or ASPs. The ASP of our UHF Gen2 products has decreased as the market for UHF Gen2 solutions has developed. From time to time, we have reduced the selling price of our products due to competitive pricing pressures, to encourage adoption, to address macroeconomic conditions and for other reasons. We expect that we may have to do so again in the future. If we are unable to offset any reductions in our ASPs by increasing our sales volumes or introducing new products with higher margins, our revenue and gross margins will suffer. Our customers may be slow to migrate to new, higher margin products. Some competitors have significantly greater resources than we have and may be better able to absorb the negative impact on operating results as a result of such trends.

The rapid innovation occurring in the UHF Gen2 market can drive intense pricing pressure, particularly on products containing older technology. Relatively short life cycles for certain products cause them to be replaced by more technologically advanced substitutes on a regular basis. In turn, when demand for older technology declines, ASPs may drop, in some cases precipitously. To profitably sell these products, we must improve technology or processes to reduce our production costs in line with the lower selling prices. If we and our third party suppliers and manufacturers cannot advance process technologies or improve efficiencies to a degree sufficient to maintain required margins, we may not be able to sell these products profitably. Should our cost reductions fail to keep pace with reductions in market prices, our business, financial condition and operating results could be materially adversely affected.

Changes in our product mix could cause our overall gross margin to decline, adversely affecting our operating results and financial condition.

Our gross margin is highly dependent on product mix. A shift in sales mix away from our higher margin products could adversely affect our gross margins, and there can be no assurance that we will be able to maintain our historical gross margins. A majority of our revenue is generated by sales of our Monza ICs, which has lower gross margins than our Indy reader ICs and Speedway readers, and we expect Monza IC revenue to increase as a percentage of total revenue over time. If Monza IC revenue continues to grow relative to our other products and services, our company-wide gross margin will decline. Additionally, increased competition and the existence of product alternatives, weaker than expected demand and other factors may lead to further price erosion, lower revenue and lower margins for us in the future, adversely affecting our operating results and financial condition.

If we are unsuccessful developing and introducing new products and enhancements, our operating results and competitive position will be harmed.

To keep pace with technological developments, satisfy increasingly sophisticated end-user requirements and achieve market acceptance, we plan to introduce new UHF Gen2 solutions. We commit significant resources to developing new products, improving performance and reliability and reducing costs. In the future, we may not succeed in developing the underlying technologies or processes necessary to create new or enhanced products or in licensing or otherwise acquiring these technologies from third parties. We may also fail to anticipate or meet market requirements for new features and functionality. We may be unable to develop commercially viable products using new or enhanced technologies, such as smaller silicon process geometries for ICs or new materials or designs for antennas. The success of a new or enhanced product depends on accurate forecasts of long-term market demand and future technological developments, as well as on a variety of specific implementation factors, including:

- timely and efficient completion of process design;
- timely and efficient implementation of manufacturing, assembly and testing procedures;
- product performance;
- product certification;
- the quality and reliability of the product; and
- effective marketing, sales and service.

To the extent that we fail to introduce new or enhanced solutions that meet the needs of our customers in a timely fashion, we will lose market share and our revenue and financial condition could be materially adversely affected.

Fluctuations in our quarterly and annual operating results may adversely affect our business, prospects and stock price.

You must consider our business and prospects in light of the risks and difficulties we encounter in the new, uncertain and rapidly evolving market for UHF Gen2 solutions. Because this market is new and evolving, predicting its future growth rate and size is difficult. In the past, both we and other industry participants have overestimated UHF Gen2 market size and growth rates. The rapidly evolving nature of the markets in which we sell our products, as well as other factors that are beyond our control, reduce our ability to accurately evaluate our future prospects and forecast quarterly or annual performance. To date, we have had limited success in accurately predicting future sales of our UHF Gen2 products. We expect that our visibility into future sales of our products, including both sales volumes and prices, will continue to be limited for the foreseeable future and could result in fluctuations in our quarterly and annual operating results that we are unable to predict as well as failure to achieve our expected operating results.

Numerous other factors, many of which are outside our control, may cause or contribute to significant fluctuations in our quarterly and annual revenue and operating results. These fluctuations may make financial planning and forecasting difficult. In addition, these fluctuations may result in unanticipated decreases in our available cash, which could negatively affect our business and prospects. Factors that may contribute to fluctuations in our operating results and revenue include:

- variations in the adoption rate of UHF Gen2 technology and any delays in UHF Gen2 deployments by industry leaders;
- fluctuations in demand for our solutions, particularly by large inlay manufacturers and other significant customers on which we rely for a substantial portion of our revenue;
- fluctuations in supply for our solutions;
- variations in the quality of our products and return rates;
- declines in average selling prices for our products;
- delays in timing of product shipments and work performed under development contracts;
- variations in the introduction or enhancement of products, services and technologies by us and our competitors and market acceptance of these new or enhanced products, services and technologies;
- unanticipated excess or obsolete inventory as a result of introduction of new products, quality issues or otherwise;
- changes in the amount and timing of our operating costs, including those related to the expansion of our business, operations and infrastructure;
- changes in business cycles or seasonal fluctuations that may affect the markets in which we sell our products;
- adverse outcomes of litigation, intellectual property disputes or governmental proceedings;
- changes in industry standards or specifications, or changes in government regulations, relating to UHF Gen2;
- late, delayed or cancelled payments from our customers; and
- unanticipated impairment of long-lived assets and goodwill.

One or more of the foregoing or other factors may cause our operating expenses in one period to be disproportionately higher or lower or may cause our revenue and operating results to fluctuate significantly. For these reasons, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on our past results as an indication of our future performance.

We generate most of our revenue from our Monza ICs, and a decline in sales of these products could adversely affect our operating results and financial condition.

We derive, and expect to continue to derive, a majority of our product revenue from our Monza tag ICs, and we expect this trend to continue. In addition, the continued adoption of our Monza ICs drives in part our ability to generate revenue from our other products. As a result, we are particularly vulnerable to fluctuations in demand for our Monza ICs, and if demand for them declines significantly, our business and operating results will be adversely affected.

Our reliance on third-party inlay manufacturers, reader OEMs, distributors, VARs and system integrators to sell our products could adversely affect our business and operating results.

We rely significantly on third-party inlay manufacturers, reader OEMs and distributors to distribute our products to end users. Substantially all of our Monza ICs and a substantial majority of our Indy ICs are sold through inlay manufacturers and distributors, respectively. In 2010, sales to Avery Dennison Corporation, or Avery Dennison, and UPM-Kymmene Corporation, or UPM, accounted for 42% and 29% of our Monza IC revenue, respectively, and sales to our top two Indy reader IC customers accounted for 34% and 17%, respectively, of our reader IC revenue. Although our strategy is to diversify our customer base by pursuing increased orders from mid-size buyers and expanding sales to other customers, we cannot give any assurance that we will be successful in doing so. Even if we are successful in obtaining and retaining new customers, our existing customers or other inlay manufacturers, reader OEMs and distributors may continue to account for a substantial portion of our sales in the future. Changes in markets, customers or products, or negative developments in general economic and financial conditions and the lack of availability of credit, may adversely affect the ability of these inlay manufacturers, reader OEMs and distributors to bring our products to market. Additionally, if they are unable to sell an adequate amount of our products in a given quarter to end users or if they decide to decrease their inventories of our products for any reason, our revenue may decline.

For strategic or other reasons, our inlay manufacturers, reader OEMs and distributors may choose to prioritize the sale of our competitors' products over our products. Our future performance will depend, in part, on our ability to attract additional inlay manufacturers, reader OEMs and distributors who will be able to market and support our products effectively, especially in markets in which we have not previously sold our products. If we cannot retain our current inlay manufacturers, reader OEMs and distributors or establish new relationships, our business, financial condition and operating results could be harmed. In addition, our competitors' strategic relationships with or acquisitions of these inlay manufacturers, reader OEMs or distributors could disrupt our relationships with them. Any such disruption in the distribution of our products could impair or delay sales of our products to end users and increase our costs of distribution, which could adversely affect our sales or operating results.

Our revenue also depends on the ability of system integrators to successfully market, sell, install and provide technical support for systems in which our products are integrated or to sell our products on a stand-alone basis. Our revenue may decline if the efforts of these system integrators fail. Further, the faulty or negligent implementation and installation of our products by system integrators may harm our reputation. Moreover, because we are often at least one step removed from the end users of our products, we may be unable to rectify damage to our reputation caused by system integrators, distributors or VARs who have direct contact with end users. If our system integrators, distributors or VARs are unable to sell an adequate amount of our products in a given quarter to manufacturers and end users or if they decide to decrease their inventories of our products for any reason, our sales to these channel partners and our revenue may decline.

If some channel partners decide to purchase more of our products than are required to satisfy end user demand in any particular period, inventories at these channel partners would grow in that period. These channel partners likely would reduce future orders until inventory levels realign with end customer demand, which could adversely affect our product revenue in a subsequent period. Distributors may also return our products, subject to -15- time and quantity limitations. Our reserve estimates for products stocked by our distributors are based principally on reports provided to us by our distributors, typically on a monthly basis. To date, we believe that this data typically has been accurate but is often late and subject to errors in our distributors' accounting systems. To the extent that this resale and channel inventory data is inaccurate or not received in a timely manner, we may not be able to make reserve estimates for future periods accurately or at all.

Many of our channel partners provide us with customer referrals and cooperate with us in marketing our products; however, our relationships with them may be terminated at any time. If we fail to successfully manage our relationships with our channel partners, our ability to sell our products into new industries and to increase our penetration into existing industries may be impaired and our business would be harmed.

We will lose market share and may not be successful if end users or customers do not select our products to be designed into their products and systems.

End users often undertake extensive pilot programs or qualification processes prior to placing orders for large quantities of UHF Gen2 products, in particular for UHF Gen2 reader products, because these products must function as part of a larger system or network or meet certain other specifications. We spend significant time and resources to have our solutions selected by a potential end user or customer, which is known as a "design-in." In the case of UHF Gen2 reader products, such "design-ins" mean that the reader products have been selected to be designed into the end user's system and, in the case of a UHF Gen2 tag, may mean the tag has met certain unique performance criteria established by the end user or customer. If we fail to develop new products that adequately or competitively address the needs of potential end users, they may not select our products to be designed into their systems, which would adversely affect our business, prospects and operating results.

Our products must meet exacting technical and quality specifications. Defects, errors in or interoperability issues with our products or the failure of our products to operate as expected could affect our reputation, result in significant costs to us and impair our ability to sell our products.

Our products may contain defects, errors or not operate as expected, which could materially and adversely affect our reputation, result in significant costs to us and impair our ability to sell our products in the future. Our customers have demanding specifications for quality, performance and reliability that our tag and reader products must meet. Our products are highly technical and designed to be deployed in large and complex systems, networks and other settings under a wide variety of conditions. Customers and end users may discover errors, defects or incompatibilities in our products only after they have been fully deployed. For example, harsh environments and radio-frequency interference may negatively affect the performance of our UHF Gen2 readers. In addition, users of our UHF Gen2 products may experience compatibility or interoperability issues between our products and their enterprise software systems or networks, or between our products and other UHF Gen2 products they use.

We may also experience quality problems with our products that are combined with or incorporated into products from other vendors, such as tags produced by our inlay manufacturers, or that are assembled by subcontractors. We may have difficulty identifying and correcting the source of problems when third parties are combining, incorporating or assembling our products.

If we are unable to fix errors or other problems, we could experience:

- loss of customers or customer orders;
- lost or delayed market acceptance and sales of our products;
- loss of market share;
- damage to our brand and reputation;
- impaired ability to attract new customers or achieve market acceptance;

- diversion of development resources;
- increased service and warranty costs;
- replacement costs;
- legal actions by our customers; and

- increased insurance costs.

While our agreements typically contain provisions and disclaimers that purport to limit our liability for damages resulting from defects in our products, such limitations and disclaimers may not be enforced by a court or other tribunal or otherwise effectively protect us from claims. We may be required to indemnify our customers against liabilities arising from defects in our products or their solutions which incorporate our products. These liabilities may also include costs incurred by our customers or end users to correct the problems or replace our products.

The costs incurred correcting product defects or errors may be substantial and could adversely affect our operating results. While we test our products for defects or errors prior to product release, defects or errors are occasionally identified by our customers. Such defects or errors have occurred in the past and may occur in the future. For example, in the fourth quarter of 2010, we adopted new tag IC post-processing techniques to enhance the number of Monza ICs we could supply. Despite our qualification testing, the new techniques increased our defect rate, and our product returns increased. To the extent product failures are material, they could adversely affect our business, operating results, customer relationships, reputation and prospects.

In addition, our new products, features and enhancements must comply with the UHF Gen2 standard. Compatibility issues could disrupt our customers' operations, hurt our customer relations and materially adverse our business and prospects.

If we are unable to protect our intellectual property, our business could be adversely affected.

Our success depends in part upon our ability to protect our intellectual property. We rely on a variety of intellectual property rights, including patents in the United States and copyrights, trademarks and trade secrets in the United States and foreign countries for this protection. Because most RFID products are used in or imported into the United States, we do not have patents or pending patent applications in any foreign country. By seeking patent protection only in the United States, our ability to assert our intellectual property rights outside the United States will be limited. We have registered trademarks and domain names in selected foreign countries where we believe filing for such protection is appropriate. Regardless, some of our products and technologies may not be covered or covered adequately by any patent, patent application, trademark, copyright, trade secret or domain name.

We cannot guarantee that:

- any of our present or future patents or patent claims will not lapse or be invalidated, circumvented, challenged or abandoned;
- our intellectual property rights will provide competitive advantages to us;
- our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will not be limited by our agreements with third parties;
- any of our pending or future patent applications will be issued or have the coverage originally sought;
- our intellectual property rights will be enforced in jurisdictions where competition may be intense or where legal protection may be weak;
- any of the trademarks, copyrights, trade secrets or other intellectual property rights that we presently employ in our business will not lapse or be invalidated, circumvented, challenged or abandoned; or

- we will not lose the ability to assert our intellectual property rights against, or to license our technology to, others and collect royalties or other payments.

In addition, our competitors or others may design around our patents or protected technologies. Effective intellectual property protection may be unavailable or more limited in one or more relevant jurisdictions relative to those protections available in the United States. If we pursue litigation to assert our intellectual property rights, an adverse decision in any legal action could limit our ability to assert our intellectual property rights, limit the value of our technology or otherwise negatively impact our business, financial condition and operating results.

Monitoring unauthorized use of our intellectual property is difficult and costly. Unauthorized use of our intellectual property may have occurred or may occur in the future. Although we have taken steps to minimize the risk of unauthorized use, any failures to identify unauthorized use or otherwise adequately protect our intellectual property could adversely affect our business. Moreover, any litigation, could be time consuming, and we could be forced to incur significant costs and divert our attention and the efforts of our employees, which could, in turn, result in lower revenue and higher expenses.

We also rely on customary contractual protections with our customers, suppliers, distributors, employees and consultants, and we implement security measures to protect our trade secrets. We cannot assure you that these contractual protections and security measures will not be breached, that we will have adequate remedies for any such breach, that third parties will not discover our proprietary information independently or through legal means or that our suppliers, employees or consultants will not assert rights to our intellectual property.

Finally, our use of overseas manufacturers may involve particular risks. The intellectual property protection in countries where our third-party contractors operate is weaker than in the United States. If the steps we have taken and the protection provided by law do not adequately safeguard our intellectual property rights, we could suffer losses in profits due to the sales of competing products which exploit our intellectual property rights.

Our licensing of UHF Gen2-related intellectual property from others may be subject to requirements or limitations that could adversely affect our business and prospects.

We have intellectual property license agreements that give us access to certain patents and intellectual property of others. We have not licensed our patents or intellectual property to others except as necessary for our customers to practice their business using our products and as required pursuant to agreements we have entered into in connection with our participation in the development of GS1 EPCglobal specifications and International Standards Organization, or ISO, standards, as described below. We may choose to license our patents or intellectual property to others in the future. We cannot guarantee that any patents and technology that we provide in such future licenses will not be used to compete against us.

We may face claims of intellectual property infringement, which could be time consuming, costly to defend or settle and result in the loss of significant rights.

Our industry is characterized by companies that hold large numbers of patents and other intellectual property rights and that may vigorously pursue, protect and enforce their intellectual property rights. For example, two companies that manufacture and sell UHF Gen2 products, Intermec and Alien, have been engaged in patent litigation (to which we are not a party), when Alien sought declaratory judgment of non-infringement of certain Intermec RFID patents. We have in the past and may in the future receive invitations to license patent and other intellectual property rights to technologies that are important to our business. We may also receive assertions against us, our customers or distributors, claiming that we infringe patent or other intellectual property rights. Claims that our products, processes, technology or other aspects of our business infringe third-party intellectual property rights, regardless of their merit or resolution, could be costly to defend or settle and could divert the efforts and attention of our management and technical personnel. If we decline to accept an offer, the offering party may allege that we infringe such patents, which could result in litigation.

In addition, many of our customer and distributor agreements require us to indemnify and defend our customers or distributors from third-party infringement claims and pay damages in the case of adverse rulings. Moreover, we may not know whether we are infringing a third party's rights, due to the large number of patents related to UHF Gen2 or to other systemic factors. For instance, patent applications in the United States are maintained in confidence for up to 18 months after their filing or, in some cases, for the entire time prior to issuance as a patent. Thus, we would not be able to account for such rights before publication. Competitors may also have filed patent applications or received patents and may obtain additional patents and proprietary rights that block or compete with our patents. Claims of this sort could harm our relationships with our customers or distributors and might deter future customers from doing business with us. We do not know whether we will prevail in any such future proceedings given the complex technical issues and inherent uncertainties in intellectual property litigation. If any pending or future proceedings result in an adverse outcome, we could be required to:

- cease the manufacture, use or sale of the infringing products, processes or technology;
- pay substantial damages for infringement;
- expend significant resources to develop non-infringing products, processes or technology;
- license technology from the third party claiming infringement, which license may not be available on commercially reasonable terms, or at all;
- cross-license our technology to a competitor to resolve an infringement claim, which could weaken our ability to compete with that competitor; or
- pay substantial damages to our customers or end users to discontinue their use of or to replace infringing technology sold to them with non-infringing technology.

Any of the foregoing results could have a material adverse effect on our business, financial condition and operating results.

We have limited visibility regarding the length of the sales cycles for our products.

Based on the limited sales history for our UHF Gen2 products, we have limited visibility into the length of the sales cycle for our products, and from time to time sales cycles have been longer than initially anticipated. Numerous factors can contribute to the length of the sales cycle, including technical evaluations of our products by our customers and end users and our efforts to educate customers and end users on the uses and benefits of UHF Gen2 technology. The length and uncertain timing of the sales cycle can lead to delayed product orders. In anticipation of product orders, we may incur substantial costs before the sales cycle is complete and before we receive any customer orders or payments. If a sale is not completed or is cancelled or delayed, we may incur substantial expenses, which would hinder our ability to achieve or maintain profitability or otherwise negatively affect our financial results.

We are subject to order and shipment uncertainties. Inaccuracies in our estimates of customer demand and product mix could negatively affect our inventory levels, sales and operating results.

We derive revenue primarily from customer purchase orders rather than long-term purchase commitments. To ensure availability of our products, in some cases we start manufacturing based on forecasts provided by customers in advance of receiving purchase orders from them. Our customers can cancel purchase orders or defer the shipments of our products under certain circumstances with little or no advance notice to us. Some of our products are manufactured according to our estimates of customer demand, which requires us to make demand forecast assumptions for every customer, and which may introduce significant variability into our aggregate estimate. We typically sell to channel partners rather than to end users, and we consequently have limited visibility into future end-user demand, which could adversely affect our revenue forecasts and operating margins. Moreover, because the market for UHF Gen2 solutions is relatively new, many of our customers have difficulty accurately forecasting their product requirements and estimating the timing of their new product introductions, -19- which ultimately affects their demand for our products. Additionally, we sometimes receive soft commitments for larger order sizes which do not materialize.

Historically, because of this limited visibility, our estimates of customer demand have been inaccurate. Some of these inaccuracies have been material, leading to excess inventory with associated costs or product shortages with its concomitant reduction in revenue and gross margin. These forecasting inaccuracies may occur in the future, and their adverse impact could grow if we are unsuccessful in selling more products to some customers. Excess inventory levels and increased obsolescence could result in unexpected expenses or increases in our reserves that could adversely affect our business, operating results and financial condition. If we were to underestimate customer demand or if sufficient manufacturing capacity were unavailable, we could miss revenue opportunities, potentially lose market share and damage our customer relationships. For example, we were unable to meet customer demand for our products in 2010 as a result of supply constraints and thus lost revenue opportunities. In response, we have purchased excess inventory, which may expose us to the risk of inventory write-downs due to excess and obsolescence of inventory that we are unable to sell on a timely basis. In the fourth quarter of 2010, we wrote off $592,000 in obsolete inventory, primarily our Speedway Classic reader. Any significant future cancellations or deferrals of product orders or the return of previously sold products due to manufacturing defects could materially and adversely impact our profit margins, increase our write offs due to product obsolescence and restrict our ability to fund our operations.

Our sales and marketing efforts may be unsuccessful in maintaining and expanding existing sales channels, developing new sales channels and increasing the sales of our products.

To grow our business, we must add new customers for our UHF Gen2 solutions in addition to retaining and increasing sales to our current customers. Our ability to attract new customers will depend in part on the success of our sales and marketing efforts. There can be no guarantee that we will be successful in developing or implementing our sales and marketing strategy. If suitable sales channels do not develop, we may not be able to sell certain of our products in significant volumes and our operating results, business and prospects may be harmed.

We may be unable to successfully expand our international operations.

We currently generate approximately 40% of our revenue outside of the Americas. We anticipate growing our business in part by continuing to expand our international operations. Our international operations involve a variety of risks, including:

- unexpected changes in regulatory requirements, taxes, trade laws, tariffs, export quotas, custom duties or other trade restrictions;
- more stringent regulations relating to data privacy and the unauthorized use of, or access to, commercial and personal information, particularly in Europe;
- lack of established standards or regulations with which our UHF Gen2 products must comply;
- greater difficulty in supporting and localizing our products;
- different or unique competitive pressures as a result of, among other things, the presence of local businesses and other market players;
- challenges inherent in efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits and compliance programs;
- limited or unfavorable intellectual property protection;
- changes in foreign currency exchange rates;

- changes in a specific country's or region's political, regulatory, legal or economic conditions;
- international political conflicts;
- differing regulations with regard to maintaining operations, products and public information;
- differing labor regulations, especially where labor laws are generally more advantageous to employees than in the United States; and
- restrictions on repatriation of earnings.

We have limited experience in marketing, selling and supporting our products and services abroad. We may not be able to increase or maintain international market demand for our products. In addition, regulations or standards adopted by other countries may require us to redesign our existing products or develop new products for those countries. For example, foreign governments may impose regulations or standards with which our current UHF Gen2 products do not comply, or may require operation in frequency bands in which our products do not operate. Furthermore, if we are unable to expand international operations in a timely and cost-effective manner in response to increased overseas demand, we could miss sales opportunities and our revenue would decline, adversely affecting our operating results, business and prospects. If we invest substantial time and resources to expand our international operations and are unable to do so successfully and in a timely manner, our business, prospects and operating results will suffer.

If we do not successfully attract and complete custom engineering projects with strategic end users and others, adoption of our products could be delayed, and our market position could be compromised.

To encourage the widespread market adoption of our products and of UHF Gen2 technology in general and to extend the reach and capabilities of our products, we sometimes perform non-recurring engineering, or NRE, product, tool or software developments for strategic end users and others. We compete with other companies to win these engagements and, in the future, may not be able to compete successfully. Some developments grant time-bounded exclusivity to the customer who paid for the NRE, which may limit our ability to capitalize on the knowledge and experience we gain in connection with such engagements. If we accept such NRE-based development yet do not successfully complete the project, our relationship with the customer could deteriorate, and we may lose business and the opportunity to expand the market for our products. Because some NRE-based developments take a year or more to complete, our time to product revenue can be long. Additionally, the customer may choose to cancel or delay the development mid-way through the process, again causing a loss of potential revenue. If a competitor develops and markets a similar product yet we are unable to compete in the general market due to the time-bounded exclusivity with our customers, then we could lose business, market share and revenue opportunities.

Acquisitions could result in operating difficulties, dilution and other harmful consequences.

We have made, and may continue to make, acquisitions of companies, products, services and technologies to expand our product offerings and capabilities, customer base and business. For example, in July 2008, we acquired certain assets of Intel Corporation's UHF RFID reader IC business. We have only acquired this one business. We have evaluated, and expect to continue to evaluate, a wide array of potential strategic transactions, and occasionally we may engage in discussions regarding potential acquisitions. Any of these transactions could be material to our financial condition and operating results. In addition, the process of integrating an acquired company, business or technology may create unforeseen operating difficulties and expenditures. Acquisition-related risks include:

- diversion of management time and focus from operating our business to acquisition integration challenges;
- difficulties integrating the products into our strategy and product plan;
- the possibility that customers may seek a new supplier to replace us because of an acquisition;

- inability to retain employees from the businesses we acquire;
- challenges associated with integrating employees from the acquired company into our organization;
- difficulties integrating each company's accounting, management information, human resource and other administrative systems to permit effective management;
- potential requirements for remediating controls, procedures and policies appropriate for a public company in acquired businesses that prior to the acquisition lacked these controls, procedures and policies;
- potential liability for past or present environmental, hazardous substance, or contamination concerns associated with the acquired business or its predecessors;
- possible write-offs or impairment charges resulting from acquisitions; and
- unanticipated or unknown liabilities relating to acquired businesses.

Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries. Also, the anticipated benefit of any acquisition may not materialize. Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. Future acquisitions may require us to obtain additional equity or debt financing, which may not be available on favorable terms or at all.

Our efforts to influence new standards could fail, which could adversely affect our ability to compete.

To encourage widespread market adoption of UHF RFID technology, we have participated in the development of industry standards, and we have designed our products to comply with these standards. GS1 EPCglobal is currently developing an enhanced version of UHF Gen2 based on end-user requirements, which we anticipate will be known as "UHF Gen2 Version 2" or simply "Gen2 V2." The end-user requirements mandate that Gen2 V2 be backward compatible with the original Gen2. ISO has taken a set of steps that indicate that, like in the past, they will adopt and standardize Gen2 V2 as the next generation of 18000-6C (and which ISO has indicated that they will rename to 18000-63). In the future, we could lose our leadership position in GS1 EPCglobal or we could lose our project editorship position for UHF Gen2. Gen2 V2 could fail to be backward compatible with the original Gen2, GS1 EPCglobal could fail to ratify Gen2 V2, or ISO could choose to not adopt Gen2 V2. If Gen2 V2 diverges significantly from our or the market's needs, or if it fails to materialize or to be standardized by ISO, then our products may likewise fail to keep pace with the market's needs, our competitors' products and end-user requirements, in which case end users could delay their UHF Gen2 adoption. Alternative or competing technologies could gain market share at the expense of UHF Gen2 and at the expense of our Gen2 products, and these competing technologies could use intellectual property that is either not royalty free or to which we do not have access.

Compliance with, and changes in, government spectrum regulations could adversely affect our ability to sell our products and impair our operating results.

Government spectrum regulations require that our UHF Gen2 readers and reader-based subsystems be certified in the jurisdiction where they are to be operated. Speedway Revolution readers are certified for use in over 40 countries worldwide, including the United States, Canada, Mexico, China, Japan, South Korea and each country in the European Union. If any of these products is found to be noncompliant despite having such certification, then we could be required to modify field-deployed readers to regain such certification and could spend significant resources as well as miss sales opportunities in the process. Our revenue would decline, adversely affecting our operating results, financial conditions, business and prospects. Additionally, government regulations may change, requiring us to redesign our products to the revised regulations or constraining our ability to implement new and desired features into our products, thereby causing us to incur significant expense -22- or forego opportunities to improve on our products and potentially delaying our time-to-market, adversely affecting our operating results, financial conditions, business and prospects.

Alternative technologies or standards, or changes in existing technologies or standards, may adversely affect the growth of the market for UHF Gen2 solutions.

Significant developments in alternative technologies may affect our business in ways that we cannot anticipate. For instance, technology or market breakthroughs in legacy RFID systems, such as LF or HF systems, may adversely affect the growth of the UHF Gen2 market generally and demand for our products in particular. For example, near-field communications technology, which today addresses a different market than UHF Gen2, could, with breakthrough innovations, compete with UHF Gen2 in item tagging. Likewise, new technologies such as organic transistors may allow lower-cost UHF Gen2 ICs than our current silicon-based technology allows. An inability to innovate in new or enhanced technologies or processes, or to react to changes in existing technologies or in the market, or to compete with advances in legacy technologies, could materially delay our development of new and enhanced products and potentially result in product obsolescence, decreased revenue or a loss of market share.

Similarly, the introduction of new industry standards, or changes to existing industry standards, could make our products incompatible with the new or changed standards and could cause us to incur substantial development costs to adapt to these new or changed standards, particularly if they were to achieve, or be perceived as likely to achieve, greater penetration in the marketplace than UHF Gen2 or Gen2 V2. Moreover, the adoption or expected adoption of such new or changed standards could slow the sale of existing products even before products based on the new or changed standards become available. New industry standards or changes to existing standards could also limit our ability to implement new features in our products if those features do not meet the new or changed standards. The lost opportunities as well as the time and expense required for us to develop new products or change our existing products to comply with new or changed standards could be substantial, and there is no assurance that we could successfully develop products that comply with new or changed standards in doing so. If we are not successful in complying with any new or changed industry standards then we could lose market share, causing our business to suffer.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

We are subject to export control laws, regulations and requirements that limit which products we sell and where and to whom we sell our products. In some cases, it is possible that export licenses would be required from U.S. government agencies for some of our products in accordance with the Export Administration Regulations, the International Traffic in Arms Regulations or economic sanctions programs administered by the U.S. Department of the Treasury's Office of Foreign Assets Control. We may not be successful in obtaining the necessary export licenses in all instances. Any limitation on our ability to export or sell our products imposed by these laws would adversely affect our business, financial condition and results of operations. In addition, changes in our products or changes in export and import and economic sanctions laws and implementing regulations may create delays in the introduction of new products in international markets, prevent our customers from deploying our products internationally or, in some cases, prevent the export or import of our products to certain countries altogether. While we are not aware of any other current or proposed export or import regulations which would materially restrict our ability to sell our products, any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by these regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. In such event, our business and results of operations could be adversely affected.

Privacy and security concerns relating to UHF Gen2 technology could damage our reputation and deter current and potential customers from using our products. If we fail to develop products that meet privacy regulations or guidelines, customers may curtail using our products in certain applications, which would harm our business, operating results and financial condition.

From time to time, concerns have been and are expected to continue to be expressed about whether UHF Gen2 products can compromise consumer privacy or even facilitate theft. Typical fears include unauthorized parties collecting personal information, tracking consumers, stealing identities or causing other privacy-related issues. UHF Gen2 tags may be surreptitiously identified by unauthorized readers to track a consumer or otherwise gain access to information that a consumer considers private, even if the customer employs security measures such as shielding and encryption. Similarly, retailers may inadvertently or perhaps even intentionally scan consumers' tags to gain information, such as shopping behavior, that may be illegal to collect or if not illegal, may be considered intrusive by consumers. Unauthorized readers could gain access to sensitive end-user information stored in the tags, again despite measures such as shielding and encryption designed to thwart such unauthorized access. For example, criminals seeking to divert or steal high-value pharmaceutical products could seek to identify these products by looking for tags with Electronic Product Codes, or EPCs, corresponding to these products. In addition, it may be possible to embed computer viruses or other malicious code into UHF Gen2 tags so that by reading the contents of a tag memory, the malicious code can be inserted into end-user systems. If a privacy or security breach occurs, our customers would be the likely target of regulatory actions or private lawsuits. However, in such cases, a customer might allege that our technology did not function as promised and may sue us for breach of contract, breach of warranty, negligence or another cause of action. Additionally, if our customers' security measures are breached, even if through means beyond our control, our reputation could be damaged and our business and prospects could suffer. Moreover, concerns about security and privacy risks, even if unfounded, could damage our reputation and operating results and could delay the development of the overall UHF Gen2 industry.

Some regulatory jurisdictions expect Gen2 V2 to address consumer privacy concerns. If Gen2 V2 does not adequately address the concerns, or if regulators act independently, new laws could significantly impair the use of UHF Gen2 technology in certain applications, which in turn could affect our ability to sell our UHF Gen2 products into these applications and adversely affect our operating results, financial condition, business and prospects. Similarly, if we fail to implement new products that comply with the Gen2 V2 specification or any new regulations, or both, customers could choose to avoid our products which could adversely affect our operating results, financial conditions, business and prospects. Security breaches could expose us to litigation and possible liability. Even if our efforts meet any new standards or regulations, if our security measures are breached as a result of third-party action, employee error, criminal acts by an employee, malfeasance or otherwise, and, as a result, someone obtains unauthorized access to customer or end-user data, our reputation could be damaged, our business and prospects may suffer and we could incur significant liability.

Government regulations and guidelines relating to consumer privacy may have an adverse impact on the adoption of our products, require us to make design changes or constrain our ability to implement new and desired features for our products.

Public scrutiny of the manner and extent to which companies collect and use personal information, both in the United States and in many foreign countries, is at an all-time high. Our customers are subject to a number of foreign and domestic laws and regulations relating to the collection, storage, transmission and use of personal information about individuals, as well as additional laws and regulations that specifically address privacy and security issues related to the use of RFID technology. For example, some U.S. states have enacted statutes specifically governing the use of RFID. Four states have enacted laws stating that when an enhanced driver's license or other state-issued identification card contains RFID technology, the RFID technology must include security controls to protect against the unauthorized disclosure of personal information. Three states have enacted laws that prohibit reading a person's identification documents using RFID without that person's knowledge or consent, except in certain circumstances. In addition, the European Commission, or EC, has issued voluntary -24- guidance specifically designed to address privacy concerns about the use of RFID technology. The data security and privacy legislative and regulatory landscape in both the United States and the European Union, or EU, is rapidly evolving, and changes in such laws and regulations may adversely impact our business, including our ability to develop future products.

In May 2009, the EC released a recommendation that retail companies in the EU inform their customers when RFID tags are placed on or embedded in their products. In April 2011, the EC signed a voluntary agreement with private and public stakeholders to develop privacy guidelines for companies using RFID technology in the EU. The agreement requires companies to conduct comprehensive privacy impact assessments of new RFID applications and to take measures to address the risks identified by the assessment before the RFID application is deployed. While compliance with the guidelines is voluntary, our customers that do business in the EU may have a preference for RFID solutions that are compliant with the guidelines. If our products do not provide the necessary functionality to allow customers to comply with the guidelines, our business may suffer.

If we fail to develop products that implement end-user requirements for security, end users may choose not to use our products in certain applications, which would harm our business, operating results and financial condition.

UHF Gen2 does not currently include the technologies necessary for securely authenticating a tag or a reader, and as a consequence does not have the ability to store information in tag memory securely. The user requirements for Gen2 V2 address these shortcomings. If GS1 EPCglobal fails to address these requirements in Gen2 V2, or we fail to implement the new Gen2 V2 features in our products, our business and prospects may suffer. Even if the Gen2 V2 specification is ratified, adopted by ISO and we implement it in our products, a third party may breach the security in our products, in which case our reputation could be damaged and our business and prospects may suffer.

Our participation in standard-setting organizations requires us to license our patents to third parties, including competitors, and limits our ability to enforce our patents.

In the course of participating in the development of GS1 EPCglobal specifications, including UHF Gen2, UHF Gen2 V2, tag data standards, or TDS, low-level reader protocol, or LLRP, and others, we have agreed to license on a royalty-free basis those of our patents that are necessarily infringed by the practice of these specifications to other GS1 EPCglobal members, subject to reciprocal royalty-free rights from those other members. Because it may not be clear whether a member's intellectual property is necessary or optional to the practice of a specification, disputes could arise among members, resulting in our inability to receive a license on royalty-free terms. In addition, in the course of participating in the development of certain ISO standards we have agreed to grant to all users worldwide a license to those of our patents that are necessarily infringed by the practice of those standards, including at frequencies other than UHF, on terms that are reasonable and non-discriminatory, sometimes referred to as RAND, again subject to reciprocity. As a result, we are not always able to limit to whom and, to a certain extent, on what terms we license our technologies, and our control over and our ability to generate licensing revenue from some of our technologies may be limited.

We rely on third-party license agreements, and impairment of these agreements may cause production or shipment delays that would harm our business.

We have licensing agreements with various entities for patents, software and other technology incorporated into our manufacturing operations or products. For example, we license tools from electronic design automation software vendors to design our silicon products. Third-party licenses for patents, software and other technology important to our business may not continue to be available to us on commercially reasonable terms, if at all. The impairment of these licenses could result in significant manufacturing interruptions, delays or reductions in product shipments until alternative technology could be developed, licensed and integrated, if at all possible, which would materially harm our business and operating results.

Our use of open source software may expose us to additional risks and harm our intellectual property.

Our products, processes and technology sometimes utilize and incorporate software that is subject to an open-source license. Open-source software is typically freely accessible, usable and modifiable. Certain open-source software licenses require a user who intends to distribute the open-source software as a component of the user's software to disclose publicly part or all of the user's source code. In addition, certain open-source software licenses require the user of such software to make any derivative works of the open-source code available to others at low or no cost. This licensing regime can subject previously proprietary software to open-source license terms.

While we monitor the use of all open-source software in our products, processes and technology and try to ensure that no open-source software is integrated in a way that inadvertently requires us to disclose the source code to the related product, processes or technology, such use could occur and could harm our intellectual property position and have a material adverse effect on our business, operating results and financial condition.

Our products may cannibalize revenue from each other, which could harm our business.

The sale of some of our products enables our customers to compete with other of our products. For example, sales of our Indy reader ICs allow our customers to manufacture and sell readers which may compete with our Speedway Revolution reader. Similarly, sales of our Speedway Revolution reader enables our customers to manufacture and sell integrated portal readers which may compete with our Speedway xPortal reader subsystem. We may see one product line expand at the expense of another, or we may be asked or even pushed by customers of one product line to disadvantage or divest another product line. We are unable to predict whether we can manage such conflicts in the future, or retain customers despite the conflicts. Any of the foregoing could have a material adverse effect on our business, financial condition and operating results.

Our reader OEMs rely on component suppliers for their products and any failure of those suppliers to perform could adversely affect demand for our Indy ICs.

Our reader OEM customers procure essential components from other suppliers, including sole-source suppliers for some components or products. For example, currently most OEMs who manufacture Indy-based readers procure ARM7 processors for those readers from Atmel Corporation. A delay in supply or a catastrophic loss to Atmel's facilities would disrupt our reader OEM customers' operations and may adversely affect demand for our Indy ICs and operating results.

Lack of enterprise systems able to exploit the information generated by UHF Gen2 systems may adversely affect the market for our products.

A successful end-user UHF Gen2 deployment, for example in a retail apparel store, requires not only the deployment of Gen2 tags and readers, but also back-end infrastructure improvements to derive business value with information from tagged items. Unless technology providers continue to develop and advance back-end business-analytics tools, and end users install or enhance their back-end systems to include these business analytics tools, deployments of UHF Gen2 could stall. The market perception of UHF Gen2 could sour if end users do not deploy the business-analytics tools or if the performance of the tools is poor. Our efforts to foster the deployment of these business-analytics tools by providing technical guidance to technology providers that develop them could falter. Similarly, systems integrators form an essential part of the UHF Gen2 market by delivering UHF Gen2 deployment know-how to end users who otherwise would not be able to deploy UHF Gen2 systems on their own. Our efforts to train and support systems integrators could likewise falter. If one or both of the business-analytics or systems-integrator communities does not succeed adequately, or if we become unable to support these communities adequately, we could see a material adverse impact on our business, operating results, financial condition or prospects.

Our business would be adversely affected by the departure of members of our executive management team.

Our success depends, in large part, on the continued contributions of our executive management team, including the services of Chris Diorio, Ph.D., our chairman, co-founder, chief technology officer and director; William T. Colleran, Ph.D., our president, chief executive officer and director and Evan Fein, our senior vice president and chief financial officer. None of our executive management team is bound by employment contracts to remain with us for a specified period. The loss of any member of our executive management team could harm our ability to implement our business strategy and respond to the rapidly changing market conditions in which we operate.

If we are unable to attract, train and retain qualified personnel, especially our design and technical personnel, we may not be able to effectively execute our business strategy.

Our future success depends on our ability to attract, retain and motivate qualified personnel, including our management, sales and marketing, finance and especially our design and technical personnel. We do not know whether we will be able to retain all of these personnel as we continue to pursue our business strategy. As the source of our technical and product innovations, our design and technical personnel represent a significant asset. The availability of, and competition for, qualified personnel in the Seattle area, where we are headquartered, constrains our ability to attract qualified personnel. The loss of the services of one or more of our key employees, especially of our key design and technical personnel, or our inability to attract, retain and motivate qualified personnel could have a material adverse effect on our business, financial condition and operating results.

Provisions in our customer agreements concerning pricing and other terms could adversely affect our operating results.

In the ordinary course of business, we have occasionally entered into agreements that contain pricing terms that could adversely affect our operating results and gross margins. For example, we have contracts that specify future pricing on Indy ICs, as well as contracts that contain most favored customer pricing for certain customers on specified products. Additionally, some of our development agreements contain exclusivity terms that may prevent us from developing substantially similar systems for other customers during the exclusivity period. We may decide for competitive or strategic reasons to enter into similar types of agreements in the future, and any such agreements could impair our operating results. Further offering reduced prices or other favorable terms to one customer could adversely affect our ability to negotiate favorable terms with other customers.

We and our third-party contractors are subject to environmental laws and regulations that could impose substantial costs upon us and may adversely affect our business, operating results and financial condition.

Some of our operations, such as our research, development and laboratory facilities, are regulated under various federal, state, local, foreign and international environmental laws, including those governing the discharge of pollutants into the air and water, the management, disposal, handling and labeling of, and exposure to, hazardous substances and wastes and the cleanup of contaminated sites. We could incur costs, fines and civil or criminal sanctions, third-party property damage or personal injury claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental laws. Liability under certain environmental laws can be joint and several and without regard to comparative fault. In addition, certain of our products contain hazardous substances and are subject to legal requirements that regulate their content, such as the

European Union's Restriction of Hazardous Substances Directive, or RoHS, and analogous regulations elsewhere. While we have designed our products to be compliant with environmental regulations and require our third party contractors to comply, we cannot guarantee that we or our products will always be in compliance with these requirements. Environmental laws also tend to become more stringent over time, and we cannot predict the ultimate costs under environmental laws and the timing of these costs. Failure to comply with these and other environmental laws could result in fines and penalties and decreased revenue, which could adversely affect our operating results.

If our third-party contractors fail to operate in compliance with environmental requirements, properly dispose of wastes associated with our products, or comply with requirements governing the hazardous substances content of our products, we could be held liable or suffer reputational harm.

We may not sustain or effectively manage our growth.

We have experienced significant revenue growth in a short period of time. We may not achieve similar growth rates in future periods. You should not rely on our operating results for any prior periods as an indication of our future operating performance. If we are unable to maintain adequate revenue growth, our financial results could suffer and our stock price would decline.

To successfully manage our growth and the responsibilities of being a public company, we believe we must effectively:

- recruit, hire, train and manage additional qualified engineers for our research and development activities;
- add sales personnel and expand customer support offices;
- implement and improve administrative, financial and operational systems, procedures and controls; and
- integrate and train new employees quickly and effectively and coordinate among our executive, engineering, finance, marketing, sales, operations and customer support organizations.

All of the activities above add to the complexity of our organization and increase our operating expenses.

We may have insufficient management capabilities and internal resources to manage our growth and business effectively. Accordingly, we may require significant additional resources as we increase our business operations in complexity and scale. We cannot assure you that resources will be available when we need them or that we will have sufficient capital to fund these potential resource needs.

If we are unable to manage our growth effectively, we may not be able to exploit market opportunities or develop new products, and we may fail to satisfy customer requirements, maintain product quality, execute our business plan or respond to competitive pressures.

We are bound by the restrictions contained in our debt instruments that may restrict our ability to pursue our business strategies.

Our credit facilities require us to comply with various covenants that limit our ability, among other things, to:

- dispose of assets;
- complete mergers or acquisitions;
- incur indebtedness;
- encumber assets;
- pay dividends or make other distributions to holders of our capital stock;
- make investments;
- change certain key management personnel; and
- engage in transactions with our affiliates.

These restrictions could inhibit our ability to pursue our business strategies. If we default under our credit facilities, and such event of default was not cured or waived, the lender could terminate commitments to lend and cause all amounts outstanding with respect to the debt to be due and payable immediately, which in turn could result in cross defaults under our other debt instruments. Our assets and cash flow may not be sufficient to fully repay borrowings under all of our outstanding debt instruments if some or all of these instruments are accelerated upon a default.

Although we intend to repay our debt with a portion of the proceeds of this offering, we may incur indebtedness in the future. The debt instruments governing such indebtedness could contain provisions that are as, or more, restrictive that our existing debt instruments. If we are unable to repay, refinance or restructure our indebtedness when payment is due, the lenders could force us into bankruptcy or liquidation.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements would be impaired, which could adversely affect our operating results, our ability to operate our business and our stock price.

We must ensure that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis. Section 404 of the Sarbanes-Oxley Act requires annual management assessments of the effectiveness of our internal controls over financial reporting and a report by our independent auditors addressing these assessments. We are only at the beginning stages of implementing systems and controls to comply with Section 404. Both we and our independent auditors will be testing our internal controls in connection with the Section 404 requirements and could identify areas for further attention or improvement. Implementing any changes to our internal controls may require compliance training of our directors, officers and employees, entail substantial costs to modify our accounting systems and take a significant period of time to complete. Such changes may not, however, be effective in maintaining the adequacy of our internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially impair our ability to operate our business. In addition, investors' perceptions that our internal controls are inadequate or that we are unable to produce accurate financial statements may materially adversely affect our stock price.

We may need to raise additional capital, which may not be available on favorable terms, if at all, and which may cause dilution to existing stockholders, restrict our operations or adversely affect our ability to operate our business.

If we need to raise additional funds due to unforeseen circumstances or material expenditures or if our operating results are worse than expected, we cannot be certain that we will be able to obtain additional financing on favorable terms, if at all, and any additional financings could result in additional dilution to our existing stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions such as incurring additional debt, expending capital, or declaring dividends, or which impose financial covenants on us that limit our ability to achieve our business objectives. If we need additional capital and cannot raise it on acceptable terms, we may not be able to meet our business objectives, our stock price may fall and you may lose some or all of your investment.

Our operations could be disrupted by earthquakes or other natural disasters.

Our facilities could be disabled or suffer catastrophic losses caused by earthquake, fire, flood or other natural disasters. We have facilities in areas with substantial seismic activity, such as our headquarters and offices in Seattle, Washington, and in areas with tornado activity, such as our office in Bentonville, Arkansas. A catastrophic loss at any of our facilities or the facilities of our third-party suppliers would disrupt our operations, delay production and shipments, reduce revenue and result in large expenses to repair or replace the facility. We do not carry insurance policies that cover potential losses caused by earthquakes or other natural disasters.

Our ability to use net operating losses to offset future tax liabilities may be limited.

As of March 31, 2011, we had federal net operating loss carryforwards, or NOLs, to offset future taxable income of approximately $106.3 million, which expire in various years beginning in 2020, if not utilized. A lack of future taxable income would adversely affect our ability to utilize these NOLs. In addition, under Section 382 of the U.S. Internal Revenue Code, or the Code, a corporation that experiences a more-than 50% ownership change over a three-year testing period is subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs could be further limited by Section 382 of the Code. Future changes in our stock ownership, many of the causes of which are outside of our control, could result in an ownership change under Section 382 of the Code. Our NOLs may also be impaired under state law. As a result of these limitations, we may not be able to utilize a material portion of the NOLs.

The unfavorable outcome of any future litigation or administrative action could negatively impact us.

Our financial results could be negatively impacted by unfavorable outcomes in any future litigation or administrative actions. We cannot assure favorable outcomes in litigation or administrative proceedings. Costs associated with litigation and administrative proceedings are very high and could negatively impact our financial results.

Risks Relating to this Offering and Ownership of Our Common Stock

The market price of our common stock may be volatile, and the value of your investment could decline significantly.

Investors who purchase common stock in this offering may not be able to sell their shares at or above the initial price to public. Securities of companies similar to ours experience significant price and volume fluctuations. The following factors, in addition to other risks described in this prospectus, may have a significant effect on our common stock price:

- quarterly variations in our results of operations or those of our competitors;
- announcements by us or our competitors of acquisitions, new products, significant contracts, commercial relationships or capital commitments;
- developments with respect to intellectual property rights;
- our ability to develop and market new and enhanced products on a timely basis;
- commencement of, or our involvement in, litigation;

- major changes in our board of directors or management;
- changes in governmental regulations or in the status of our regulatory approvals;
- changes in earnings estimates or recommendations by securities analysts; and
- general economic conditions and slow or negative growth of related markets.

In addition, the stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may seriously affect our stock price, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our stock shortly following this offering. In addition, in the past, securities class action litigation has often been instituted against companies whose stock prices have declined, especially following periods of volatility in the overall market. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of the analysts who cover us issues an adverse opinion about our company, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Future sales of our common stock in the public market could cause our stock price to fall.

Our stock price could decline as a result of sales of a large number of shares after this offering or the perception that these sales could occur. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

Upon completion of this offering, shares of our common stock will be outstanding (shares of common stock will be outstanding assuming exercise of the underwriters' over-allotment option in full), based on our shares outstanding as of March 31, 2011. All shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act unless held by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The resale of the remaining shares, or % of our outstanding shares after this offering, are currently prohibited or otherwise restricted as a result of securities law provisions, market standoff agreements entered into by our stockholders with us or lock-up agreements entered into by our stockholders with the underwriters; however, subject to applicable securities law restrictions and certain extensions, these shares will be able to be sold in the public market beginning 180 days after the date of this prospectus. In addition, the shares subject to outstanding options, of which are exercisable as of March 31, 2011, and the shares reserved for future issuance under our stock option and equity incentive plans will become available for sale immediately upon the exercise of such options and the expiration of any applicable market stand-off or lock-up agreements. For more information see the section of this prospectus captioned "Shares Eligible for Future Sale."

Holders of approximately shares (including the shares underlying the warrants described in the section of this prospectus captioned "Shares Eligible for Future Sale—Warrants"), or %, of our common stock will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register the offer and sale of all shares of common stock that we may issue under our equity compensation plans. Once we register the offer and sale of shares for the holders of registration rights and option holders, they can be freely sold in the public market upon issuance, subject to the lock-up agreements described in the section of this prospectus captioned "Underwriters."

In addition, in the future, we may issue additional shares of common stock or other equity or debt securities convertible into common stock in connection with a financing, acquisition, litigation settlement, employee arrangement or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

Our principal stockholders and management own a significant percentage of our stock and will be able to exercise significant influence over matters subject to stockholder approval.

Our executive officers, directors and principal stockholders, together with their respective affiliates, beneficially owned approximately 81% of our capital stock as of March 31, 2011, and we expect that upon completion of this offering, that same group will beneficially own at least % of our capital stock, of which % will be beneficially owned by our executive officers. Accordingly, after this offering, our executive officers, -31- directors and principal stockholders will be able to determine the composition of our board of directors, retain the voting power to approve all matters requiring stockholder approval, including mergers and other business combinations, and continue to have significant influence over our operations. This concentration of ownership could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material adverse effect on our stock price and may prevent attempts by our stockholders to replace or remove our board of directors or management.

We have broad discretion to use the net proceeds from this offering, and our investment of these proceeds may not yield a favorable return. We may invest the proceeds of this offering in ways you disagree with.

Our management has broad discretion as to how to spend and invest the proceeds from this offering and we may spend or invest these proceeds in a way with which our stockholders may disagree. Accordingly, you will need to rely on our judgment with respect to the use of these proceeds. We intend to use the proceeds from this offering for debt repayment, product development, working capital and other general corporate purposes, including the costs associated with being a public company. These uses may not yield a favorable return to our stockholders.

An active trading market for our common stock may not develop.

Prior to this offering, there has been no public market for our common stock. Although we expect that our common stock will be approved for listing on , an active trading market for our shares may never develop or be sustained following this offering. The initial price to public for our common stock was determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of the common stock after the offering. This initial price to public may vary from the market price of our common stock after the offering. As a result of these and other factors, you may be unable to resell your shares of our common stock at or above the initial price to public.

Anti-takeover provisions in our charter documents and under Delaware or Washington law could make an acquisition of us difficult, limit attempts by our stockholders to replace or remove our current management and limit our stock price.

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our stock. Among other things, our certificate of incorporation and bylaws will:

- permit our board of directors to issue up to shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of a stockholder's notice;

- not provide for cumulative voting rights (therefore allowing the holders of a plurality of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer or by the board of directors; and
- provide that stockholders will be permitted to amend our bylaws only upon receiving at least two-thirds of the total votes entitled to be cast by holders of all outstanding shares then entitled to vote generally in the election of directors, voting together as a single class.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. Likewise, because our principal executive offices are located in Washington, the anti-takeover provisions of the Washington Business Corporation Act may apply to us under certain circumstances now or in the future. These provisions prohibit a "target corporation" from engaging in any of a broad range of business combinations with any stockholder constituting an "acquiring person" for a period of five years following the date on which the stockholder became an "acquiring person." See "Description of Capital Stock" elsewhere in this prospectus.

We will incur increased costs by being a public company.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. We also anticipate that we will incur costs associated with relatively recently adopted corporate governance requirements, including requirements of the SEC and the . We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. We also expect these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of directors or as executive officers. We are currently evaluating and monitoring developments with respect to these rules, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

Special Note Regarding Forward-Looking Statements and Industry Data

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA This prospectus contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. Some of the statements under "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" and elsewhere in this prospectus contain forward-looking statements. In some cases, you can identify forward-looking statements by the following words: "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words.

These statements involve risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the breadth and rate of adoption of UHF Gen2 solutions and growth of the UHF Gen2 market;
- our ability to compete effectively against other providers of UHF Gen2 products or competing technology;
- average selling prices of our products and the effect of price erosion, if any, for UHF Gen2 solutions;
- product mix and gross margins for our products;
- our ability to develop and introduce new products and enhancements that achieve market acceptance;
- the performance of the third parties on which we rely for the manufacture, assembly and testing of our products;
- our ability to maintain appropriate inventory levels, including adequate resources from our suppliers;
- our ability to commercialize new end uses for UHF Gen2 solutions, further our market penetration and enter into new geographies and end markets;
- our ability to broaden and deepen our relationships with inlay manufacturers, reader OEMs, distributors, VARs and system integrators;
- our ability to secure "design-in" for UHF Gen2 solutions and the ability of inlay manufacturers, reader OEMs, VARs, distributors and system integrators to sell our products to end users;
- our ability to maintain market share for our products and technology leadership within the UHF Gen2 market;
- our ability to adequately protect our intellectual property;
- our liquidity and capital resources;
- our future leadership of the standards-setting process and the impact of changes in the UHF Gen2 standard; and
- our ability to manage growth in our business.

In addition, you should refer to the "Risk Factors" section of this prospectus for a discussion of other important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to -34- be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933 do not protect any forward-looking statements that we make in connection with this offering.

This prospectus contains market data and industry forecasts that were obtained from industry publications. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified any third party information. While we believe the market position, market opportunity and market size information included in this prospectus is generally reliable, such information is inherently imprecise.

Use of Proceeds

USE OF PROCEEDS We estimate that the net proceeds to us from the sale of the shares of common stock by us in this offering will be approximately $, or approximately $ if the underwriters exercise their over-allotment option in full, based upon an assumed initial price to public of $ per share, the mid-point of the range reflected on the cover page of this prospectus, and after deducting underwriting discounts and commissions and estimated offering expenses. Each $1.00 increase (decrease) in the assumed initial price to public of $ per share would increase (decrease) the net proceeds to us from this offering by approximately $, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of shares in the number of shares offered by us would increase (decrease) the net proceeds to us from this offering by approximately $, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We do not expect that a change in the initial price to public or the number of shares by these amounts would have a material effect on our uses of the proceeds from this offering, although it may accelerate the time at which we will need to seek additional capital. We will not receive any of the proceeds from the sale of common stock by the selling stockholders.

We intend to use approximately $10.0 million, $2.0 million and up to $13.0 million of the net proceeds from this offering to repay amounts outstanding under our mezzanine term loan facility, the “Facility B” term loan borrowings of our credit facility and our subordinated secured convertible promissory notes, respectively. The mezzanine term loan facility, which is scheduled to mature in March 2013, accrues interest at a fixed rate equal to 11.0% per year and is payable monthly. The Facility B term loan borrowings portion of our credit facility, which is scheduled to mature in December 2013, accrues interest at a floating rate equal to the greater of 4.5% and the lender’s prime rate plus 1.25% and is payable monthly. The subordinated secured convertible promissory notes, which are scheduled to mature in June 2011, accrue at a fixed rate equal to 9.0% per year. We used the proceeds of the mezzanine term loan facility to finance the purchase of Monza wafers to avoid supply constraints similar to those which we faced in 2010. We used the Facility B term loan borrowings and the proceeds of subordinated secured convertible promissory notes for working capital and general corporate purposes.

We currently expect to use the balance of net proceeds of this offering for further product development, working capital, other general corporate purposes and the costs associated with being a public company.

The expected use of net proceeds of this offering represents our current intentions based upon our present plans and business conditions. We cannot specify with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering. Accordingly, our management will have broad discretion in the application of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the proceeds of this offering.

Pending their uses, we plan to invest the net proceeds of this offering in short-and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

Dividend Policy

DIVIDEND POLICY We have never declared or paid any cash dividends on our common stock or any other securities. We anticipate that we will retain all available funds and any future earnings, if any, for use in the operation of our business and do not anticipate paying cash dividends in the foreseeable future. In addition, our credit facility materially restricts, and future debt instruments we issue may materially restrict, our ability to pay dividends on our common stock. Payment of future cash dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements of our current or then-existing credit facilities and other factors our board of directors deems relevant.

Capitalization

CAPITALIZATION The following table summarizes our (1) cash, cash equivalents and short-term marketable securities, (2) subordinated convertible promissory notes and (3) capitalization as of March 31, 2011:

- on an actual basis; and
- on a pro forma, as adjusted basis, to reflect the sale and issuance by us of shares of common stock in this offering at an assumed initial price to public of $ per share, the mid-point of the range reflected on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses, and the application of such proceeds as described in the section captioned “Use of Proceeds.”

You should read the information in this table together with our financial statements and related notes to those statements, as well as the sections captioned “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” appearing elsewhere in this prospectus.

	As of March 31, 2011	
	Actual	Pro Forma As Adjusted[1]
	(Unaudited)	
	(In thousands, except per share data)	

Cash, cash equivalents and short-term marketable securities	$12,052	$
Subordinated convertible promissory notes-related parties	$6,279	$
Long-term debt:		
Credit facility	8,708	
Mezzanine credit facility	9,730	
Total long-term debt	18,438	
Redeemable convertible preferred stock, $0.001 par value per share; issuable in series, 206,227,960 authorized, 97,465,284 shares issued and outstanding, actual; no shares authorized, no shares issued or outstanding, pro forma as adjusted	160,197	
Stockholders' equity (deficit):		
Preferred stock, $0.001 par value per share; no shares authorized, no shares issued or outstanding, actual; authorized, no shares issued or outstanding, pro forma as adjusted		
Common stock, $0.001 par value per share, 160,000,000 shares authorized, 35,311,010 shares issued and outstanding, actual; 132,776,294 shares authorized, shares issued and outstanding, pro forma as adjusted	35	
Accumulated deficit	(155,830)	
Accumulated other comprehensive loss	(15)	
Additional paid-in capital	—	
Total stockholders' deficit	(155,810)	
Total capitalization	$22,825	$

(1) Each $1.00 increase (decrease) in the assumed initial price to public of $ per share, the mid-point of the range reflected on the cover page of this prospectus, would increase (decrease) each of cash and equivalents, additional paid-in capital, total stockholders' deficit and total capitalization by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of shares in the number of shares offered by us would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total stockholders' deficit and total capitalization by approximately $, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual initial price to public and other terms of this offering determined at pricing.

The number of shares of our common stock outstanding immediately after this offering is based on 132,776,294 shares of our common stock outstanding as of March 31, 2011. The outstanding share information in the table above excludes as of March 31, 2011:

- 21,914,388 shares of common stock issuable upon the exercise of outstanding options with a weighted average exercise price of $0.11 per share;
- 1,004,155 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan as of March 31, 2011; provided, however, that immediately upon the signing of the underwriting agreement for this offering, our 2010 Equity Incentive Plan will terminate so that no further awards may be granted under our 2010 Equity Incentive Plan;
- an aggregate of up to shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan and 2011 Employee Stock Purchase Plan, each of which will become effective immediately upon the signing of the underwriting agreement for this offering;
- an aggregate of 2,798,029 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying our subordinated convertible promissory notes (which notes will be repaid using a portion of the net proceeds of the offering contemplated by this prospectus);
- an aggregate of 890,721 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share (which warrants will be exercised automatically on a net exercise basis in connection with the offering contemplated by this prospectus if the initial per share price to public exceeds the exercise price of the warrants); and
- an aggregate of 260,280 shares of our Series E preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share and an aggregate of 300,000 shares of our common stock underlying warrants with an exercise price of $0.21 per share.

Dilution

DILUTION

If you invest in our common stock you will experience immediate and substantial dilution in the pro forma net tangible book value of your shares of common stock. Dilution in pro forma net tangible book value represents the difference between the price to public per share of our common stock and the pro forma net tangible book value per share of our common stock immediately after the offering.

The historical net tangible book deficit of our common stock as of March 31, 2011 was $0.3 million, or $0.01 per share. Historical net tangible book value (deficit) per share represents our total tangible assets (total assets less intangible assets) less total liabilities divided by the number of shares of outstanding common stock.

After giving effect to (1) the automatic conversion of our outstanding preferred stock into an aggregate of shares of common stock immediately prior to the completion of this offering, (2) the issuance of shares of our common stock in this offering, and (3) receipt of the net proceeds from our sale of shares of common stock in this offering at an assumed initial price to public of $ per share (the midpoint of the price range set forth on the cover of this prospectus), after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2011 would have been approximately $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to existing stockholders and an immediate dilution of $ per share to new investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed initial price to public per share	$
Historical net tangible book deficit per share as of March 31, 2011	$(0.01)
Decrease per share attributable to conversion of convertible preferred stock	0.01
Pro forma net tangible book deficit per share before this offering	$—
Increase in net tangible book value per share attributable to investors participating in this offering	
Pro forma as adjusted net tangible book value per share, as adjusted to give effect to this offering	
Pro forma dilution per share to investors participating in this offering	$

Each $1.00 increase (decrease) in the assumed initial price to public of $ per share would increase (decrease) our pro forma as adjusted net tangible book value by approximately $, or approximately $ per share, and increase (decrease) in the pro forma dilution per share to investors in this offering by approximately $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase of in the number of shares offered by us would increase our pro forma as adjusted net tangible book value by approximately $, or $ per share, and the pro forma dilution per share to investors in this offering would be $ per share, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a decrease of shares in the number of shares offered by us would decrease our pro forma as adjusted net tangible book value by approximately $, or $ per share, and the pro forma dilution per share to investors in this offering would be $ per share, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual initial price to public and other terms of this offering determined at pricing.

If the underwriters exercise their option in full to purchase additional shares of common stock in this offering, the pro forma as adjusted net tangible book value per share after the offering would be $ per share, the increase in the pro forma net tangible book value per share to existing stockholders would be $ per share and the pro forma dilution to new investors purchasing common stock in this offering would be $ per share.

Sales by the selling stockholders in this offering will reduce the number of shares held by existing stockholders to or approximately % of the total shares of our common stock outstanding after this offering, or shares and approximately % of the total shares of our common stock outstanding after this offering if the over-allotment option is exercised in full. The number of shares to be purchased by new investors will be increased to or approximately % of the total shares of our common stock outstanding after this offering, or shares and approximately of the total shares of common stock outstanding after this offering, if the over-allotment option is exercised in full.

The following table summarizes, on a pro forma basis as of March 31, 2011, the differences between the number of shares of common stock purchased from us, the total consideration and the weighted average price per share paid by existing stockholders and by investors participating in this offering at an assumed initial price to public of $ per share, before deducting underwriting discounts and commissions and estimated offering expenses:

	Shares Purchased		Total Consideration		Weighted AveragePrice Per Share
	Number	Percent	Amount	Percent	
Existing stockholders before this offering		%		$%	$
Investors participating in this offering					
Total		%		$%	

Each $1.00 increase (decrease) in the assumed initial price to public of $ per share would increase (decrease) total consideration paid by new investors by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of in the number of shares offered by us would increase (decrease) total consideration paid by new investors, assuming that the assumed initial price to public remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The above discussion and tables are based on 132,776,294 shares of our common stock outstanding as of March 31, 2011. This number excludes, as of March 31, 2011:

- 21,914,388 shares of common stock issuable upon the exercise of outstanding options with a weighted average exercise price of $0.11 per share;
- 1,004,155 shares of common stock reserved for future issuance under our 2010 Equity Incentive Plan as of March 31, 2011; provided, however, that immediately upon the signing of the underwriting agreement for this offering, our 2010 Equity Incentive Plan will terminate so that no further awards may be granted under our 2010 Equity Incentive Plan;
- an aggregate of up to shares of common stock reserved for future issuance under our 2011 Equity Incentive Plan and 2011 Employee Stock Purchase Plan, each of which will become effective immediately upon the signing of the underwriting agreement for this offering;
- an aggregate of 2,798,029 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying our subordinated convertible promissory notes (which notes will be repaid using a portion of the net proceeds of the offering contemplated by this prospectus);

- an aggregate of 890,721 shares of Series E convertible preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share (which warrants will be exercised automatically on a net exercise basis in connection with the offering contemplated by this prospectus if the initial per share price to public exceeds the exercise price of the warrants); and
- an aggregate of 260,280 shares of our Series E preferred stock (which will convert into shares of common stock on a one-for-one basis in connection with the offering) underlying warrants with an exercise price of $2.286 per share and an aggregate of 300,000 shares of our common stock underlying warrants with an exercise price of $0.21 per share.

Effective upon the closing of this offering, an aggregate of up to shares of our common stock will be reserved for future issuance under our equity benefit plans, and these share reserves will also be subject to automatic annual increases in accordance with the terms of the plans. To the extent that new options are issued under our equity benefit plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering.

Selected Financial Data

SELECTED FINANCIAL DATA We derived the following selected statements of operations data for the years ended December 31, 2008, 2009 and 2010 and the balance sheet data as of December 31, 2009 and 2010 from our audited financial statements appearing elsewhere in this prospectus. We derived the unaudited statements of operations data for the three months ended March 31, 2010 and 2011 and the balance sheet data as of March 31, 2011 from our unaudited interim financial statements included elsewhere in this prospectus. In the opinion of management, the unaudited financial statements reflect all adjustments, which include only normal recurring adjustments, necessary to a fair statement of our results of operations and financial position. The selected statements of operations data for the years ended December 31, 2006 and 2007 and balance sheet data as of December 31, 2006, 2007 and 2008 were derived from audited financial statements not appearing elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future. The selected financial data set forth below should be read together with our financial statements and the related notes to those statements, as well as the section captioned “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” appearing elsewhere in this prospectus.

	Year Ended December 31,					Three Months Ended March 31,	
	2006	2007	2008	2009	2010	2010	2011
						(Unaudited)	
	(In thousands, except per share amounts)						
Revenue:							
Product revenue	$18,322	$14,872	$15,457	$10,305	$29,221	$4,640	$11,397
Development, service and licensing revenue	455	1,022	9,586	10,511	2,576	500	868
Total revenue	18,777	15,894	25,043	20,816	31,797	5,140	12,265
Costs of revenue[(1)]:							
Cost of product revenue	12,236	9,410	10,791	6,782	17,008	2,455	6,325
Cost of development, service and licensing revenue	397	480	2,006	2,219	603	111	472
Total cost of revenue	12,633	9,890	12,797	9,001	17,611	2,566	6,797
Gross profit	6,144	6,004	12,246	11,815	14,186	2,574	5,468
Operating expenses:							
Research development[(1)]	10,329	11,675	12,257	9,492	10,662	2,389	2,781

Selling and marketing[1]	3,300	5,253	7,375	7,320	8,256	1,957	2,375
General and administrative[1]	6,783	6,718	6,711	5,271	5,585	1,241	1,594
Total operating expenses	20,412	23,646	26,343	22,083	24,503	5,587	6,750
Loss from operations	(14,268)	(17,642)	(14,097)	(10,268)	(10,317)	(3,013)	(1,282)
Interest income (expense) and other, net	824	1,042	316	67	(978)	(55)	(495)
Net loss before income tax (expense) benefit	(13,444)	(16,600)	(13,781)	(10,201)	(11,295)	(3,068)	(1,777)
Income tax (expense) benefit	–	–	644	50	(90)	(19)	(24)
Loss from continuing operations	(13,444)	(16,600)	(13,137)	(10,151)	(11,385)	(3,087)	(1,801)

	Year Ended December 31,					Three Months Ended March 31,	
	2006	2007	2008	2009	2010	2010	2011
						(Unaudited)	
	(In thousands, except per share amounts)						
Income (loss) from discontinued operations, net of tax	(607)	(3,431)	1,275	291	–	–	–
Net loss	$(14,051)	$(20,031)	$(11,862)	$(9,860)	$(11,385)	$(3,087)	$(1,801)
Net loss attributable to common stockholders	$(18,437)	$(25,779)	$(19,481)	$(18,419)	$(19,943)	$(5,227)	$(3,838)
Basic and diluted loss per share:							
Loss from continuing operations	$(0.68)	$(0.82)	$(0.70)	$(0.56)	$(0.58)	$(0.15)	$(0.11)
Income (loss) from discontinued operations	(0.03)	(0.13)	0.06	0.01	–	–	–
Net loss	$(0.71)	$(0.95)	$(0.64)	$(0.55)	$(0.58)	$(0.15)	$(0.11)
Weighted-average number of shares used in per share amounts	26,085	27,238	30,509	33,527	34,127	33,723	34,824
Pro forma net loss per share, basic and diluted[2]					$(0.09)		$(0.01)
Pro forma weighted average shares outstanding, basic and diluted[2]					131,592		132,289

(1) Includes stock-based compensation as follows:

Total cost of revenue	$ 5	$ 43	$ 16	$ 20	$ 25	$ 6	$ 7
Research and development	41	178	123	114	203	31	109
Selling and marketing	10	42	96	82	138	21	47
General and administrative	8	26	112	97	133	39	68
Total stock-based compensation	$64	$289	$347	$313	$499	$97	$231

(2) Assumes the conversion of all outstanding shares of convertible preferred stock outstanding as of March 31, 2011 into common stock.

	As of December 31,					As of
	2006	2007	2008	2009	2010	March 31,2011
						(Unaudited)
	(In thousands)					
Balance Sheet Data:						
Cash, cash equivalents and short-term marketable securities	$14,022	$32,151	$20,190	$11,320	$6,743	$12,052
Working capital	16,032	31,886	19,640	9,984	6,606	18,779
Total assets	26,076	41,423	35,127	22,498	29,454	43,121
Total long-term debt	–	2,000	1,733	133	5,278	18,438
Redeemable convertible preferred stock	89,193	127,563	141,043	149,602	158,160	160,197
Accumulated deficit	(71,406)	(96,815)	(115,127)	(133,188)	(152,525)	(155,830)
Total stockholders' deficit	(71,379)	(96,775)	(114,995)	(133,166)	(152,505)	(155,810)

Management's Discussion and Analysis of Financial Condition and Results of Operations

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION

And Results of Operations

You should read the following discussion and analysis together with our financial statements and the related notes to those statements included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. As a result of many factors, such as those set forth under "Risk Factors" and elsewhere in this prospectus, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

Impinj is the leading provider of UHF RFID solutions for identifying, locating and authenticating items. We believe our technology platform, known as GrandPrix, is the most comprehensive and widely adopted in our industry. RFID systems built on GrandPrix deliver real-time information about tagged items, thereby enabling applications and analytics designed to improve business decisions and enhance consumer experience. Leading retail, apparel, pharmaceutical, food and beverage, technology and logistics companies as well as government agencies rely on our GrandPrix platform.

The history of our product development and sales and marketing efforts follows:

- Our company was founded in 2000 and began RFID activities in 2002.
- In June 2003, our chairman and chief technology officer led the development of the UHF Gen2 standard, which GS1 EPCglobal ratified in December 2004 and ISO adopted in July 2006.
- In April 2005, we launched Monza 1, the first UHF Gen2 IC.
- In April 2005, we launched our Speedway UHF Gen2 reader, the first high-performance UHF Gen2 reader.
- In June 2008, we sold our logic nonvolatile memory, or NVM, intellectual property licensing business to Synopsys for approximately $5.2 million in cash to focus on our core UHF Gen2 business.
- In July 2008, we acquired our Indy reader IC business from Intel Corporation for approximately $6.5 million in stock.
- In July 2009, we launched our Speedway Revolution reader, the first UHF Gen2 high-performance reader powered by an Ethernet cable, which lowers cost of operation and simplifies installation.
- In February 2010, we launched our True3D antenna technology and our QT technology, both of which are enhancements to our current Monza product family.
- In April 2010, we launched our Speedway xPortal integrated portal reader, which incorporates our Speedway Revolution reader with innovative antenna technology in an integrated package.
- In July 2010, we launched our Indy R500 reader IC, developed specifically to address the emerging market for low-cost handheld, desktop and embedded RFID readers.
- In April 2011, we introduced our Monza 5 tag IC, optimized for high-performance, high-volume, item-level tagging, and our Source Tagging Platform, or STP, software application that, when paired with our Monza 4 and 5 tag ICs, enables tag encoding that is three times faster than prior ICs.

We derive a substantial majority of our revenue from the sale of Monza tag ICs, Indy reader ICs and Speedway readers. We also derive revenue from custom development engagements. Although we will continue to strategically pursue development engagements, we expect product revenue to represent an increasing percentage of total revenue over time. In 2009, certain leading retailers initiated pilot programs for item-level tagging of apparel designed to provide real-time visibility into their inventory. The success of these pilot -45- programs led to large deployments of our item-level UHF Gen2 solutions by companies such as Walmart and Banana Republic beginning in 2010, and we experienced a substantial increase in demand for our products. However, we experienced Monza supply shortages during the last three quarters of 2010, which constrained product revenue. In addition, we experienced a decrease in wafer yield resulting from transitory problems encountered in connection with a change in our Monza post-processing, which resulted in increased returns in the fourth quarter of 2010. Our total product revenue increased to $29.2 million in 2010, which represents a 184% increase from 2009.

We use third-party trailing-edge CMOS foundries and subcontractors to produce our semiconductor products and contract manufacturers to assemble our readers and subsystems. Our capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and solutions and building our reputation as the UHF Gen2 technology leader. We invested $12.3 million, $9.5 million and $10.7 million in 2008, 2009 and 2010, respectively, in research and development and intend to continue to make significant investments in research and development to maintain our technology leadership.

Our total revenue increased to $31.8 million in 2010 from $20.8 million in 2009, which was driven by the 184% increase in product revenue. We have never been profitable and have losses from continuing operations of $9.9 million and $11.4 million in 2009 and 2010, respectively. For the three months ended March 31, 2011, we had total revenue and net loss of $12.3 million and $1.8 million, respectively, and as of March 31, 2011, our accumulated deficit was $155.8 million.

Factors Affecting Our Performance

Market Adoption

Our future financial performance will be driven by the rate, scope and depth of adoption of our UHF Gen2 products in multiple end markets and applications. In 2010, some major retailers, including Walmart, Bloomingdale's and J.C. Penney, rolled-out UHF Gen2 deployments for item-level tagging. These deployments significantly increased our sales of our UHF Gen2 products. We believe these deployments are indicative of a trend toward greater adoption of UHF Gen2 standard-based systems in retail and other markets; however, we cannot be assured that this trend will continue.

Market Share

We expect the UHF Gen2 market to continue to grow rapidly, as more companies embrace the benefits that UHF Gen2 solutions can provide. To date, we have been able to maintain a high market share for all of our products, but we expect that this share will decrease over time. Specifically, we expect increased competition in our end markets to erode our market share. We intend to invest our time and resources to deliver the most innovative UHF Gen2 solutions, embrace and extend the UHF Gen2 standard, commercialize new use cases and expand and enable our implementation and go-to-market partnerships.

Revenue Mix and Gross Margin

Substantially all of our product revenue is derived from sales of Monza tag ICs, Indy reader ICs, and Speedway readers, each of which has a different margin profile and selling price. In 2010, sales of Monza tag ICs represented approximately two-thirds of our product revenue, and we expect Monza sales to represent a substantial majority of our product revenue in the future. Depending on the proportion of our revenue that these three products represent in any given period, our gross margin may vary. Our Indy ICs and Speedway readers have higher gross margins than our Monza tag ICs. We expect that product revenue from Monza tag ICs will increase relative to revenue from our other products as UHF Gen2 adoption increases, reducing our total gross margins. In addition, we expect gross margins for Monza tag ICs may also fluctuate as we introduce products with new or enhanced features that command premium pricing and reduce our product costs.

We will continue to pursue strategically important non-recurring engineering, or NRE, based developments, which generally have higher gross margins than do our product revenue. Revenue and margin for such NRE engagements may fluctuate period to period, given that they are non-recurring in nature and are customized to a specific customer's requirements. We expect development revenue to decrease as a percentage of total revenue over time.

Average Selling Price

The average selling price of our UHF Gen2 products has decreased as the market for UHF Gen2 solutions has grown. Although the average selling prices of our UHF Gen2 products may continue to decline in the future, we do not expect them to decline at the same rate as they have historically, based on our recent experience and our product differentiation efforts that allow us to offer customers various feature and pricing options.

Basis of Presentation

Revenue

We generate revenue from the sale of UHF Gen2 products, development and service contracts, and licensing agreements. We are organized as, and operate in, one reportable segment: the development and sale of UHF Gen2 products based on our GrandPrix platform.

Product Revenue. The UHF Gen2 products we sell include Monza tag ICs, Indy reader ICs and Speedway readers. We generate our product revenue as follows:

- We sell substantially all of our Monza tag ICs to inlay manufacturers. In 2010, Monza IC sales to Avery Dennison and UPM accounted for 42% and 29%, respectively, of our Monza IC revenue. We expect that these percentages will decrease over time as the demand for our Monza ICs increases and as the number of inlay manufacturers grows.

- We sell a substantial majority of our Indy reader ICs to reader OEMs and other customers, such as Trimble, Motorola and Coca-Cola. In 2010, sales to our top two Indy customers accounted for 34% and 17% % of our Indy reader IC revenue. We sell our Indy ICs primarily through distributors. As with our Monza ICs, we expect customer concentration for Indy reader ICs to decrease over time.

- We sell most of our Speedway readers directly to VARs and system integrators via distributors. We have not experienced customer concentration in our Speedway reader product line.

We have established, and will strive to broaden and deepen, relationships with our ecosystem of inlay manufacturers, reader OEMs, distributors, VARs, system integrators and other technology companies. We also seek to establish close relationships with end users, particularly those who we believe are exemplars in the industry. These relationships with end users allow us to better understand key market trends and direction.

In 2010, demand for our products grew rapidly. This growth was driven by adoption across several industries, but particularly in the retail apparel industry. Our ability to meet demand for our Monza ICs was constrained by inadequate wafer supply during the last three quarters of 2010. Consequently, in the first quarter of 2011 we purchased more than six months of our forecasted Monza IC wafer supply using borrowings from our mezzanine term loan facility described below, and we will carry more inventory in 2011 than in prior years. Over the longer term, as our product volume increases, we anticipate qualifying additional wafer suppliers. In addition, we experienced a decrease in wafer yield resulting from transitory problems encountered in connection with a process change, which resulted in increased returns of Monza tag ICs in the fourth quarter of 2010.

Development, Service and Licensing Revenue Development. We engage in NRE-based custom solution development for end users and others. Development revenue represented 31.3%, 39.1% and 3.9% of our total revenue in 2008, 2009 and 2010, respectively. We derived approximately $7.7 million of our development, service and licensing revenue from a single customer in each of 2008 and 2009. We often receive payment for these development engagements in advance of work completed, and record these payments as deferred revenue until they are earned. We intend to continue pursuing development contracts with end users and others to further develop the UHF Gen2 ecosystem and to fund product developments that we may apply to other applications.

Service. We provide one-year service, warranty, and software updates to our Speedway customers. Some of our Indy and Speedway customers purchase long-term service contracts, support contracts, or extended warranties. Service revenue represented 4.3%, 7.5% and 2.7% of our revenue in 2008, 2009 and 2010, respectively.

Licensing. We license Speedway firmware and Indy software to reader OEMs and antenna reference designs to inlay manufacturers. We bundle the Indy software with annual maintenance and support including unspecified software updates and enhancements during the term of the support period. Licensing revenue represented 2.7%, 3.9% and 1.5% of our revenue in 2008, 2009 and 2010, respectively.

We recognize revenue as described in Note 2 of the notes to our financial statements appearing elsewhere in this prospectus.

Revenue by Geography. We categorize our sales based on the location of our inlay manufacturers, reader OEMs, distributors, VARs or end users who purchase products and services directly from us. Americas includes North and South America; EMEA includes Europe, the Middle East and Africa; and APAC includes Asia Pacific and Australia. We sell fewer of our Monza tag ICs and Indy reader ICs in EMEA given its relatively smaller manufacturing base compared to APAC and the Americas. We believe the percentage of our products deployed in EMEA is greater than the percentage of revenue we derive from EMEA because we sell our products to channel partners in APAC and the Americas that in turn sell to end users in EMEA. APAC revenue has increased as percentage of total revenue as we have expanded our presence in China to address an emerging market for UHF Gen2 products.

Cost of Revenue

Cost of product revenue includes costs associated with the manufacture of our Monza tag ICs, Indy reader ICs and Speedway readers. Costs associated with the manufacture of Monza ICs and Indy ICs typically include purchases of wafers, post processing and testing and packaging, as well as associated overhead costs such as logistics, quality control, planning and procurement. These costs depend, at least in part, on the terms that we negotiate with our suppliers, including pricing and payment terms. We outsource the manufacturing of our readers to a third-party contract manufacturer, and our costs for readers are based on negotiated prices for finished goods. Cost of product revenue also includes charges for inventory write-downs, warranty costs and accrued losses on purchase commitments to third-party contract manufacturers.

Cost of service, development and license revenue consists primarily of direct labor and other associated costs, such as travel and materials associated with fulfilling contracts under which services are provided.

Operating Expenses

Research and Development Expense. Research and development expense consists primarily of salaries and related compensation costs for our product development personnel, contract developers, prototype materials and other expenses related to the development of new and improved products. In the past, we have invested, and we plan to continue to invest, significant amounts in research and development activities to develop new products and enhance existing products and the performance and interoperability of products in our GrandPrix platform. Accordingly, we expect research and development expense to increase in absolute dollars in future periods.

Selling and Marketing Expense. Selling and marketing expense consists primarily of salaries and related compensation costs for our sales personnel, as well as travel, advertising and promotional expenses and other related expenses. We anticipate that sales and marketing expense will continue to increase in absolute dollars, as we increase headcount and focus on expanding our market penetration, and enter new geographic and vertical markets. In addition, we expect variable sales compensation to fluctuate as a function of sales.

General and Administrative Expense. General and administrative expense consists primarily of salaries and related compensation costs for our executive, finance, human resources and information technology personnel, legal, accounting and other professional services, travel and related expenses, insurance, occupancy and other overhead costs. We expect our general and administrative expenses to increase in absolute dollars as we add personnel and facilities to support our growth. We will incur additional compliance and reporting costs as a public company.

Results of Operations

The following table presents our results of operations for the periods indicated as a percentage of total revenue. Percentages from certain line items do not sum to the subtotal or total line items due to rounding. The period-to-period comparisons of results are not necessarily indicative of results for future periods.

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
Revenue:					
Product revenue	61.7%	49.5%	91.9%	90.3%	92.9%

Development, service and licensing revenue	38.3	50.5	8.1	9.7	7.1
Total revenue	100.0	100.0	100.0	100.0	100.0
Costs of revenue:					
Cost of product revenue, as a percentage of related revenue	69.8	65.8	58.2	52.9	55.5
Cost of development, service and licensing revenue, as a percentage of related revenue	20.9	21.1	23.4	22.2	54.4
Total cost of revenue	51.1	43.2	55.4	49.9	55.4
Gross profit	48.9	56.8	44.6	50.1	44.6
Operating expenses:					
Research development	48.9	45.6	33.5	46.5	22.7
Selling and marketing	29.4	35.2	26.0	38.1	19.4
General and administrative	26.8	25.3	17.6	24.1	13.0
Total operating expenses	105.1	106.1	77.1	108.7	55.1
Loss from operations	(56.3)	(49.3)	(32.5)	(58.6)	(10.5)
Interest income (expense) and other, net	1.3	0.3	(3.1)	(1.1)	(4.0)
Net loss before income tax (expense) benefit	(55.0)	(49.0)	(35.5)	(59.7)	(14.5)
Income tax (expense) benefit	2.6	0.2	(0.3)	(0.4)	(0.2)
Loss from continuing operations	(52.5)	(48.8)	(35.8)	(60.1)	(14.7)
Income from discontinued operations, net of tax	5.1	1.4	—	—	—
Net loss	(47.4)%	(47.4)%	(35.8)%	(60.1)%	(14.7)%

Comparison of Three Months Ended March 31, 2011 and 2010

Revenue

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
Product revenue	$4,640	$11,397	$6,757	145.6%
Development, service and licensing revenue	500	868	368	73.6
Total revenue	$5,140	$12,265	$7,125	138.6

The increase in total revenue for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to the increased demand for our products, partially offset by a decrease in ASPs. In addition, development, service and licensing revenue increased as a result of new consulting agreements with existing customers.

Product Revenue. The increase in product revenue for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to an increase in the volume of products sold to new and existing customers as UHF Gen2 solutions were deployed more widely. Our first quarter 2011 results also benefitted from sales of products deferred in the fourth quarter of 2010 due to supply constraints. These increases were partially offset by declines in ASPs.

Development, Service and Licensing Revenue. The increase in development, service and licensing revenue for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to new consulting agreements with existing customers. We recognized $548,000 and $210,000 in development revenue in the three months ended March 31, 2011 and 2010, respectively. Revenue from service and licensing revenue was relatively flat for the three months ended March 31, 2011 compared to the three months ended March 31, 2010.

Revenue by Geography. Revenue from the Americas grew 102.9%, revenue from APAC grew 154.2% and revenue from EMEA grew 229.5% in the three months ended March 31, 2011 compared to the three months ended March 31, 2010. The increase in revenue in the Americas was due to growth in both product and development, service and licensing revenue. The increase in revenue in APAC and EMEA was primarily due to the growth in revenue from sales of our products. For additional information, see Note 14 to the financial statements accompanying this prospectus.

Gross Profit

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
Cost of product revenue	$2,455	$6,325	$3,870	157.6%

Cost of development, service and licensing revenue	111	472	361	325.2
Total cost of revenue	$2,566	$6,797	$4,231	164.9
Product gross margin	47.1%	44.5%		
Development, service and licensing gross margin	77.8	45.6		
Total gross margin	50.1	44.6		

The $4.2 million increase in total gross profit for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to increases in both product revenue and in development, -51- service and licensing revenue. Gross margin declined in the three months ended March 31, 2011 compared to the three months ended March 31, 2010 as a result of lower development, service and licensing revenue as a percentage of total revenue.

Product Gross Margin. The decrease in product gross margin in the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to a shift in product mix toward our Monza tag ICs, partially offset by our ability to leverage overhead costs over a higher amount of total product revenue.

Development, Service and Licensing Gross Margin. The decrease in gross margin on our development, service and licensing revenue in the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to a change in development projects. Our development projects are customized to the customer's requirements, and therefore our gross margin varies from project to project.

Operating Expenses

Research and Development Expense

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
Research and development expense	$2,389	$2,781	$392	16.4%

The increase in research and development expense for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to a $386,000 increase in personnel costs as we added staff for product development and a $216,000 increase in lab supplies, equipment and professional services. Partially offsetting this increase was a $209,000 reduction due to the assignment of more of our engineering staff to development projects as we engaged in new development consulting agreements.

Selling and Marketing Expense

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
Selling and marketing expense	$1,957	$2,375	$418	21.4%

The increase in selling and marketing expense for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was primarily attributable to a $357,000 increase in personnel costs due to an increase in selling and marketing headcount to expand channel sales and geographic coverage and an increase in variable compensation increased due to increased revenue. In addition, advertising and marketing program costs increased slightly in the three months ended March 31, 2011 compared to the three months ended March 31, 2010.

General and Administrative Expense

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
General and administrative expense	$1,241	$1,594	$353	28.4%

The increase in general and administrative expense for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was primarily attributable to a $302,000 increase in our personnel costs -52- in the three months ended March 31, 2011 as we increased the number of finance, information systems and human resources employees in anticipation of future growth, as well as a $103,000 increase in professional consulting services related to the upgrade of our information systems. Partially offsetting these increases were decreases in depreciation and rent expense.

Interest Income (Expense) and Other, Net

	Three Months Ended March 31,		Change 2010 v. 2011	
	2010	2011	In Dollars	Percentage
	(Dollars in thousands)			
Interest income	$3	$1	$(2)	(66.7)%
Interest expense	(55)	(382)	(327)	N/A

Other income (expense), net	(3)	(114)	(111)	N/A

The increase in interest expense for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was driven by increased borrowings under our credit facilities after March 31, 2010, as well as the issuance of convertible promissory notes in June and July 2010. The increase in other income (expense) for the three months ended March 31, 2011 compared to the prior year period was due to the change in the fair value of convertible preferred stock warrants.

Comparison of Years Ended December 31, 2008, 2009 and 2010

Revenue

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Product revenue	$15,457	$10,305	$29,221	$(5,152)	(33.3%)	$18,916	183.6%
Development, service and licensing revenue	9,586	10,511	2,576	925	9.6	(7,935)	(75.5)
Total revenue	$25,043	$20,816	$31,797	$(4,227)	(16.9)	$10,981	52.8

The increase in total revenue for 2010 compared to 2009 was attributable to the increased demand for our Monza tag ICs, Indy reader ICs and Speedway reader products, offset in part by a decrease in ASPs and a decrease in development, service and licensing revenue as a result of the completion of a consulting agreement with a significant customer in 2009. The decrease in total revenue for 2009 compared to 2008 was due to a decrease in our product revenue as a result of macroeconomic conditions.

Product Revenue. The increase in product revenue for 2010 compared to 2009 was attributable to large deployments of our products by several retailers, including Walmart and Banana Republic. The increase in product revenue was partially offset by a decline in ASPs for each of our product lines.

The decrease in product revenue for 2009 compared to 2008 was attributable to a large bulk order of readers sold to a single customer in 2008. In addition to the effect of this $3.0 million order, product revenue decreased in 2009 compared to 2008 as the decrease in the ASPs, which was attributable to competitive factors and macroeconomic weakness, more than offset the increase in the volume of products sold.

Development, Service and Licensing Revenue. The decrease in development, service and licensing revenue for 2010 compared to 2009 was attributable to the completion in 2009 of a large consulting agreement with a single customer. We recognized $7.7 million in development, service and licensing revenue with respect to such agreement in both 2009 and 2008. Excluding the effect of this large consulting agreement, development, service and licensing revenue was relatively flat for 2008, 2009 and 2010.

Revenue by Geography. Revenue from the Americas, APAC and EMEA grew 22.1%, 176.1% and 98.8%, respectively, in 2010 compared to 2009. The increase in all three regions in 2010 was due to the growth in revenue from products and was partially offset in the Americas by the decline in development, service and licensing revenue due to the completion in 2009 of a large consulting agreement with a single customer. Revenue in the Americas and EMEA declined 23.6% and 21.1%, respectively, in 2009 compared to 2008, and revenue in APAC grew 55.7% in 2009 compared to 2008. The decrease in revenue in the Americas was primarily attributable to a large bulk order of readers sold to a single customer in the United States in 2008. The decline in the Americas and EMEA was attributable to competitive factors and macroeconomic weakness in these regions. The increase in revenue in APAC in 2009 compared to 2008 was due to the addition of channel partners in China during 2009, as well as increased adoption of UHF Gen2 solutions in China.

Gross Profit

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Product gross profit	$4,666	$3,523	$12,213	$(1,143)	(24.5)%	$8,690	246.7%
Development, service and licensing gross profit	7,580	8,292	1,973	712	9.4	(6,319)	(76.2)
Total gross profit	$12,246	$11,815	$14,186	$(431)	(3.5)	$2,371	20.1
Product gross margin	30.2%	34.2%	41.8%				
Development, service and licensing gross margin	79.1	78.9	76.6				
Total gross margin	48.9	56.8	44.6				

The $2.4 million increase in total gross profit for 2010 compared to 2009 was attributable to the increase in product revenue partially offset by the decrease in development, service and licensing revenue. Gross margin declined in 2010 compared to 2009 as a result of a substantial decline in development, service and licensing revenue, both in absolute dollars and as a percentage of total revenue.

The decrease in gross profit for 2009 compared to 2008 was attributable to the decrease in product revenue partially offset by the increase in development, service and licensing revenue. The increase in gross margin in 2009 compared to 2008 was attributable to a decline in product revenue, both in absolute dollars and as a percentage of total revenue.

Product Gross Margin. The increase in product gross margin in 2010 compared to 2009 was attributable to our ability to leverage our overhead costs over a higher amount of revenue, partially offset by a shift in product mix toward our Monza tag ICs. The increase in product gross margin in 2009 compared to 2008 was attributable to the inclusion of a full year of revenue from sale of Indy reader ICs following the acquisition of this product line from Intel Corporation in June 2008.

Development, Service and Licensing Gross Margin. The decrease in gross margin on our development, service and licensing revenue in 2010 compared to 2009 was attributable to a change in mix between development projects and licensing. Our development projects are customized to the customer's requirements and therefore our gross margin varies from project to project, but generally have lower margins than licensing.

Operating Expenses

Research and Development Expense

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Research and development expense	$12,257	$9,492	$10,662	$(2,765)	(22.6%)	$1,170	12.3%

The increase in research and development expense for 2010 compared to 2009 was attributable to a $1.5 million increase in personnel costs as we shifted personnel from development engagements with customers to product development. Partially offsetting the increase in personnel costs was a $214,000 decrease in lab supplies and equipment expenses and decreases in consulting services and fabrication and test expense.

In 2009 we decreased research and development expense compared to 2008 in an effort to better align our expense with expected cash flows given the relatively weak macroeconomic environment. We decreased personnel costs by $1.9 million by reducing our research and development headcount from 67 to 51, lab supplies and equipment expense by $423,000 and consulting services expense by $288,000. Partially offsetting these decreases was an increase in rent expense of $338,000 and an increase in fabrication and testing expenses of $152,000 as a result of including a full year of research and development expense related to the acquisition of the Indy reader IC product line. In addition, included in research and development expense in 2008 was $650,000 of in-process research and development acquired Indy reader ICs product line. We did not acquire any in-process research and development in 2009.

Selling and Marketing Expense

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Selling and marketing expense	$7,375	$7,320	$8,256	$(55)	(0.7%)	$936	12.8%

The increase in selling and marketing expense for 2010 compared to 2009 was primarily attributable to a $608,000 increase in personnel costs as we increased selling and marketing headcount to increase channel sales and geographic coverage. In addition, advertising and marketing program costs increased by $255,000 in 2010 compared to 2009 as we introduced new products to the market and our variable compensation increased $94,000 as a result of the increase in product revenue.

Selling and marketing expense was relatively flat in 2009 compared to 2008. In 2009 our professional fees decreased $424,000 because we replaced outside consultants with employees and an additional $378,000 due to cutbacks in our advertising and marketing program. These decreases were partially offset by a $678,000 increase in personnel costs as a result of including a full year of sales and marketing expense related to the acquisition of the Indy IC product line and a $69,000 increase in rent and facilities costs.

General and Administrative Expense

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
General and administrative expense	$6,711	$5,271	$5,585	$(1,440)	(21.5%)	$314	6.0%

The increase in general and administrative expense for 2010 compared to 2009 was primarily attributable to a $370,000 increase in employee relocation expenses related to the closing of our Orange County, California office and a $220,000 increase in our personnel costs in 2010 as we increased the number of finance, information systems and human resource employees in anticipation of future growth. Partially offsetting these increases were decreases in professional services fees for legal, accounting and patent advisory services of $133,000 and a decrease in depreciation and other expenses of $133,000.

The decrease in general and administrative expense for 2009 compared to 2008 was primarily attributable to a $848,000 decrease in personnel costs as we reduced headcount to better align expenses with revenue expectations given the uncertain macroeconomic environment. In addition, our rent and facilities expense decreased $380,000 as we subleased out some of our office space and our professional services expenses decreased $171,000 as we spent less on consultants and patent advisory services in 2009.

Interest Income (Expense) and Other, Net

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage

	(Dollars in thousands)						
Interest income	$723	$234	$8	$(489)	(67.6%)	$(226)	96.6%
Interest (expense)	(514)	(524)	(793)	(10)	(1.9)	(269)	(51.3)
Other income	107	357	(193)	250	233.6	(550)	(154.1)

The decrease in interest income in 2010 compared to 2009 and in 2009 compared to 2008 was attributable to lower average cash and cash equivalent balances as well as a decrease in interest rates.

The increase in interest expense in 2010 compared to 2009 was primarily attributable to the issuance of $6.3 million of convertible debt at an interest rate of 9% in June 2010 and July 2010 and an increase in average debt outstanding on bank loans. Interest expense in 2009 was flat compared to 2008.

The decrease in other income in 2010 compared to 2009 was due to a $193,000 loss in 2010 compared to a $174,000 gain in 2009 attributable to the change in the fair value of convertible preferred stock warrants.

The increase in other income in 2009 compared to 2008 was due to a $174,000 gain in 2009 compared to a $45,000 gain in 2008 attributable to the change in the fair value of convertible preferred stock warrants.

Income Tax Benefit (Expense)

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Income tax (expense) benefit	$644	$50	$(90)	$(594)	(92.2%)	$(140)	(280.0%)

The increase in income tax expense in 2010 compared to 2009 was primarily due to a $159,000 decrease in tax benefit related to our gain from discontinued operations recognized in 2009. Excluding this decrease in tax benefit, our tax expense in 2010 compared to 2009 was flat.

In 2008 and 2009 we recognized a gain from discontinued operations and this resulted in the recognition of a tax benefit equal to the portion of our net operating loss carryforward that is utilized to offset the tax expense associated with the gain from discontinued operations. Since the gain from discontinued operations in 2009 was less than the gain in 2008, the related tax benefit recognized in 2009 is less than in 2008.

Income (Loss) from Discontinued Operations, Net of Tax

	Year Ended December 31,			Change 2008 v. 2009		Change 2009 v. 2010	
	2008	2009	2010	In Dollars	Percentage	In Dollars	Percentage
	(Dollars in thousands)						
Income (loss) from discontinued operations, net of tax	$1,275	$291	$ —	$(984)	(77.2%)	$(291)	(100.0%)

In June 2008, we sold our NVM intellectual property business line for approximately $5.2 million in cash proceeds, resulting in a gain of $1.3 million net of income tax expense of $698,000. Of the total proceeds, $450,000 was restricted pending resolution of sales contingencies. In 2009, the contingencies were resolved and the $450,000 deferred gain was recorded, net of income tax expense of $159,000. Our historical financial results have been reclassified as discontinued operations for all periods.

Quarterly Results of Operations

The following tables set forth selected unaudited quarterly statements of operations data for the last five fiscal quarters, as well as the percentage that each line item represents of total net revenue. The financial statements for each of these quarters have been prepared on the same basis as the audited financial statements included elsewhere in this prospectus and, in the opinion of management, reflect all adjustments, which includes solely normal recurring adjustments, necessary to a fair statement of our results of operations and financial position for these periods. This data should be read in conjunction with the audited financial statements and accompanying notes included elsewhere in this prospectus. These quarterly operating results are not necessarily indicative of our operating results for any future period.

	Three Months Ended				
	Mar 31, 2010	June 30, 2010	Sep 30, 2010	Dec 31, 2010	March 31, 2011
	(Unaudited) (In thousands, except per share data)				
Revenue:					
Product revenue	$4,640	$6,362	$7,246	$10,973	$11,397
Development, service and licensing revenue	500	773	684	619	868
Total revenue	5,140	7,135	7,930	11,592	12,265
Costs of revenue:					
Cost of product revenue	2,455	3,423	3,877	7,253	6,325

Cost of development, service and licensing revenue	111	154	132	206	472
Total cost of revenue	2,566	3,577	4,009	7,459	6,797
Gross profit	2,574	3,558	3,921	4,133	5,468

	Three Months Ended				
	Mar 31, 2010	June 30, 2010	Sep 30, 2010	Dec 31, 2010	March 31, 2011
	(Unaudited) (In thousands, except per share data)				
Operating expenses:					
Research and development	2,389	2,767	3,042	2,464	2,781
Selling and marketing	1,957	2,056	2,038	2,205	2,375
General and administrative	1,241	1,437	1,327	1,570	1,594
Total operating expenses	5,587	6,260	6,417	6,239	6,750
Loss from operations	(3,013)	(2,702)	(2,496)	(2,106)	(1,282)
Interest income (expense) and other, net	(55)	(67)	(387)	(469)	(495)
Net loss before income tax (expense) benefit	(3,068)	(2,769)	(2,883)	(2,575)	(1,777)
Income tax (expense) benefit	(19)	(38)	(23)	(10)	(24)
Net loss	$(3,087)	$(2,807)	$(2,906)	$(2,585)	$(1,801)

	Three Months Ended[1]				
	Mar 31, 2010	June 30, 2010	Sep 30, 2010	Dec 31, 2010	March 31, 2011
	(Unaudited)				
Revenue:					
Product revenue	90.3%	89.2%	91.4%	94.7%	92.9%
Development, service and licensing revenue	9.7	10.8	8.6	5.3	7.1
Total revenue	100.0	100.0	100.0	100.0	100.0
Costs of revenue:					
Cost of product revenue	52.9	53.8	53.5	66.1	55.5
Cost of development, service and licensing revenue	22.2	19.9	19.3	33.3	54.4
Total cost of revenue	49.9	50.1	50.6	64.4	55.4
Gross margin	50.1	49.9	49.5	35.7	44.6
Operating expenses:					
Research development	46.5	38.8	38.4	21.3	22.7
Selling and marketing	38.1	28.8	25.7	19.0	19.4
General and administrative	24.1	20.1	16.9	13.5	13.0
Total operating expenses	108.7	87.7	81.0	53.8	55.1
Loss from operations	(58.6)	(37.9)	(31.5)	(18.2)	(10.5)
Interest income and other, net	(1.1)	(0.9)	(4.9)	(4.0)	(4.0)
Net loss before income tax (expense) benefit	(59.7)	(38.8)	(36.4)	(22.2)	(14.5)
Income tax (expense) benefit	(0.4)	(0.5)	(0.3)	(0.1)	(0.2)
Net loss	(60.1)	(39.3)	(36.7)	(22.3)	(14.7)

(1) Percentages from certain line items do not sum to the subtotal or total of those line items due to rounding.

Beginning in 2010 we experienced a substantial increase in demand for our products as end users significantly expanded deployments of UHF Gen2 solutions. In addition, prior to 2010 we generated a substantially larger percentage of our revenue from NRE engagements. Although we intend to continue to pursue development contracts with strategic end users, given the maturation of the ecosystem of UHF Gen2 providers and the expected demand for our products, we expect development, service and licensing revenue to be less on a percentage of total revenue basis than it was prior to 2010. As a result, we do not believe that comparisons of our quarterly results prior to 2010 to subsequent periods are helpful.

Our operating results fluctuate from quarter to quarter as a result of a variety of factors. Our ability to meet demand for our Monza tag ICs was constrained by supply of Monza wafers during the last three quarters of 2010. In the fourth quarter of 2010, gross margins were adversely affected as certain customers who had ordered Monza 3 ICs accepted our offer to deliver Monza 4 ICs at reduced prices in response to supply constraints. Fourth quarter 2010 product margins were also adversely affected by a decrease in wafer yield resulting from transitory problems encountered in connection with a change in our Monza post-processing. In addition, development gross margins were adversely affected in fourth quarter of 2010 and first quarter of 2011, due to the the variability of the terms of our development projects. Our first quarter 2011 results benefited from sales of products deferred in fourth quarter 2010 due to supply constraints. Research and development expense increased in the third quarter of 2010 due to a $333,000 expense related to expanding the number of foundries that could manufacture our Monza silicon wafers.

Retailers typically do not install or change infrastructure during the holiday season in the fourth calendar quarter. Consequently, we have experienced and continue to expect to experience decreased sales of readers and other UHF Gen2 infrastructure product to retailers during the fourth quarter.

Liquidity and Capital Resources

As of March 31, 2011, we had cash, cash equivalents and short-term marketable securities of $12.1 million, which primarily consisted of cash deposits and money market funds held at major financial institutions. Since inception, we have financed our operations primarily through private sales of equity and, to a lesser extent, from borrowings. Our principal uses of cash are funding our operations, debt service payments, as described below, and capital expenditures.

Sources of Funds

We believe, based on our current operating plan, that our existing cash and cash equivalents and available borrowings under our credit facility will be sufficient to meet our anticipated cash needs for at least the next 12 months.

From time to time, we may explore additional financing sources and means to lower our cost of capital, which could include equity, equity-linked and debt financing. In addition, in connection with any future acquisitions, we may require additional funding which may be provided in the form of additional debt, equity or equity-linked financing or a combination thereof. There can be no assurance that any additional financing will be available to us on acceptable terms.

Credit Facility. In May 2010, we entered into a loan and security agreement, which we refer to as our credit facility, pursuant to which we (1) incurred $1.5 million in term loan borrowings and were allowed to incur an additional $500,000 of term loan borrowings prior to January 31, 2011 and (2) from time to time could incur revolver borrowings of up to the lesser of $4.0 million and a borrowing base tied to the amount of eligible accounts. The credit facility also provides for the issuance of letters of credit, foreign exchange forward contracts and cash management services; however, the amount of revolver borrowings available to us is reduced by any such indebtedness that we incur. Interest on term loan borrowings accrues at a floating rate equal to the greater of 5.0% and the lender's prime rate plus 0.5%. We are required to repay the initial term loan borrowings in 24 equal monthly installments beginning on May 1, 2011 and any subsequent term loan borrowings in 27 equal monthly -59- installments beginning on the first day of the month following the day on which such indebtedness was incurred. We may at our option prepay all of the term loan borrowings by paying the lender, among other things, all principal and accrued interest plus a make-whole premium. Interest on revolver borrowings accrues at a floating rate equal to the greater of the lender's prime rate and 4.0% and is payable monthly.

In February 2011, such loan and security agreement was amended to provide for the incurrence of an additional $2.0 million of "Facility B" term loan borrowings. Interest on Facility B term loan borrowings accrues at a floating rate equal to the greater of 4.5% and the lender's prime rate plus 1.25% and is payable monthly. We are required to repay the Facility B loan in 27 monthly installments beginning on October 1, 2011. We may at our option prepay all Facility B term loan borrowings by paying the lender, among other things, all principal and accrued interest plus a make-whole premium. In addition, the credit facility was amended to increase the amount of available revolver borrowings to $10.0 million, to provide for interest on revolver borrowings at a floating rate equal to the lender's prime rate plus 0.75%, to extend the maturity date to February 1, 2013 and to provide for monthly payments. The U.S. Export-Import Bank has agreed to guarantee up to $6.8 million of revolver borrowings incurred under the credit facility to finance the cost of manufacturing, purchasing or selling items intended for export.

The credit facility contains customary conditions to borrowing, events of default and covenants, including covenants that restrict our ability to dispose of assets, merge with or acquire other entities, incur indebtedness, incur encumbrances, make distributions to holders of our capital stock, make investments or engage in transactions with our affiliates. The credit facility also requires us to maintain a minimum tangible net worth and liquidity ratio. We were in compliance with such covenants as of December 31, 2010 and March 31, 2011. Our obligations under the credit facility are secured by substantially all of our assets other than intellectual property.

Mezzanine Term Loan Facility. In March 2011, we entered into a loan and security agreement with the same lender as under the credit facility, which we refer to as the mezzanine credit facility, pursuant to which we incurred $10.0 million in term loan borrowings. Interest on term loan borrowings incurred under the mezzanine credit facility accrues at a fixed rate equal to 11.0% per year and is payable monthly. The principal amount of all outstanding borrowings under the mezzanine credit facility is payable on March 25, 2013. We may, at our option, prepay all borrowings without penalty by paying the lender all principal and accrued interest with respect to such term loan borrowing. The mezzanine credit facility contains customary events of default and covenants that are substantially similar to those contained in the credit facility, except for certain covenants relating to reporting, tangible net worth and liquidity ratio requirements which are omitted from the mezzanine credit facility. We were in compliance with such covenants as of December 31, 2010 and March 31, 2011. Our obligations under the loan and security agreement are secured by substantially all of our assets other than intellectual property. In addition, we entered into a success fee agreement in connection with the mezzanine loan facility, which requires us to pay a success fee if we are acquired or we sell all or substantially all of our assets. The success fee agreement will automatically terminate upon the completion of the offering contemplated by this prospectus.

As of March 31, 2011, we had approximately $1.5 million of term loan borrowings, $400,000 of Facility B term loan borrowings, $10.0 million of mezzanine borrowings and $7.7 million of revolver borrowings outstanding, which accrue interest at 5.0%, 5.0%, 11.0% and 4.0%, respectively.

We issued the lender warrants to purchase 24,059 and 17,498 shares of our Series E preferred stock in June 2010 and February 2011, respectively, in connection with entering into the credit facility and amendment described above. Such warrants have a ten year terms and an exercise price of $2.286 per share. We issued the lender a warrant to purchase 300,000 shares of our common stock in connection with entering into the mezzanine credit facility in March 2011. Such warrant has a ten year term and an exercise price of $0.21 per share.

Convertible Promissory Notes. In June and July 2010, we issued approximately $6.0 million aggregate principal amount of our subordinated secured convertible promissory notes to existing investors. Interest on the subordinated secured convertible promissory notes accrues interest on the unpaid principal balance at 9.0% per -60- year, and all unpaid principal, accrued interest and any other amounts payable under the subordinated secured convertible promissory notes are due and payable on the earlier to occur of: (1) June 30, 2011, (2) when upon the occurrence and during the continuance of an event of default listed in the subordinated secured convertible promissory notes, such amounts are declared due and payable by the investor; provided, the subordinated secured convertible promissory notes shall become payable immediately prior to the closing of a liquidation event, including an initial public offering; provided further that, if a liquidity event has not occurred prior to the scheduled maturity date, the maturity date may be extended by the vote of holders of more than 60% of the then outstanding aggregate principal amount of the subordinated secured convertible promissory notes. We expect that the maturity date of the subordinated secured convertible promissory notes will be extended if the offering contemplated by this prospectus is consummated after the scheduled maturity date. We are required to repay all the outstanding principal amount of the subordinated secured convertible promissory notes and all accrued and unpaid interest on the subordinated secured convertible promissory notes plus a premium equal to the sum of the outstanding principal and accrued interest on the subordinated secured convertible promissory notes in connection with the consummation of an initial public offering; however, holders of at least $100,000 aggregate principal amount of notes may, at their option, convert the principal amount of their notes plus accrued and unpaid interest into (1) shares of our Series E preferred stock at a conversion price of $2.286 per share (which conversion price is subject to adjustments for stock splits, reverse stock splits, stock dividends and the like) or (2) if all of the shares of our Series E preferred stock are converted into shares of our common stock, a number of shares of common stock that holders would have received had they converted their notes into Series E preferred stock immediately prior to the conversion pursuant to our certificate of incorporation. The subordinated secured convertible promissory notes contain customary events of default and covenants. We were in compliance with such covenants as of December 31, 2010. Our obligations under the subordinated secured convertible promissory notes are secured by substantially all of our assets other than intellectual property. Note holders have agreed not to pursue repayment of any indebtedness under the subordinated secured convertible promissory notes or under any other instrument or writing evidencing our indebtedness to them while there are outstanding borrowings under the credit facility and mezzanine credit facility. As of December 31, 2010, total outstanding aggregate principal and accrued interest for the subordinated secured convertible promissory notes was approximately $6.3 million.

In addition, we issued warrants to purchase an aggregate of 890,721 shares of our Series E preferred stock at a purchase price per share of $2.286 to the holders of subordinated secured convertible promissory notes. Such warrants will be exercised automatically on a net exercise basis in connection with the offering contemplated by this prospectus if the initial per share price to public exceeds the exercise price of the warrants.

Loan and Security Agreement. In October 2007, we entered into a loan and security agreement pursuant to which we could incur up to $10.0 million in indebtedness. Interest on each advance under the agreement accrued at the lower of (1) 14.0% and (2) the greater of 11.50% and the lender's prime rate plus 4.25%. We were required to pay interest only for the first 24 months of the agreement, subsequent to which we were required to pay 15 equal monthly installments of principal and interest. All of the indebtedness incurred under such loan and security agreement was repaid in connection with the entry into our credit facility. We also issued the lender warrants to purchase 218,723 shares of our Series E convertible redeemable preferred stock. Each of such warrants has a seven year term and an exercise price of $2.286 per share. Following the completion of the offering contemplated by this prospectus, such warrants will be exercisable for shares of our common stock.

Use of Funds

Our principal uses of cash are our operating expenses, satisfaction of our obligations under our debt instruments, debt repayment and other working capital requirements. We employ a fabless manufacturing model -61- by outsourcing production of our products to third-party trailing edge CMOS manufacturers. This capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and solutions.

We may need to raise additional funds to support our operations, and such funding may not be available to us on acceptable terms, or at all. If we are unable to raise additional funds when needed, our operations and ability to execute our business strategy could be adversely affected. We may seek to raise additional funds through public or private debt or equity financings. If we raise additional funds through the incurrence of indebtedness, such indebtedness would have rights that are senior to holders of our common stock and could contain covenants that restrict our operations. Any additional equity financing may be dilutive to our stockholders.

Historical Cash Flow Trends

The following table shows a summary of our cash flows for the periods indicated:

	Years Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
	(In thousands)				
Cash used in operating activities	$(16,690)	$(8,853)	$(14,601)	$(3,190)	$(8,236)
Cash provided by investing activities	14,511	11,852	3,572	2,377	819
Cash provided by (used in) financing activities	(117)	(427)	10,161	(445)	13,626

Operating Cash Flows. Net cash used in operating activities in each of the periods presented was primarily a result of net losses and investments in inventory. Net cash used in operating activities in the three months ended March 31, 2011 consisted of a $1.8 million net loss, $6.6 million increase in inventory, a $1.9 million increase in accounts receivable, a $733,000 increase in prepaid expenses and a $368,000 decrease in accounts payable and accrued liabilities, partially offset by a $1.5 million increase in deferred revenue. Net cash used in operating activities in the three months ended March 31, 2010 consisted of a $3.1 million net loss, a $1.7 million increase in accounts receivable and a $801,000 increase in inventory, partially offset by a $1.1 million increase in accounts payable and accrued expenses and a $695,000 increase in deferred revenue.

Net cash used in operating activities in 2010 consisted of a $11.4 million net loss, a $6.7 million increase in accounts receivable and a $6.6 million increase in inventory, partially offset by a $6.1 million increase in accounts payable and accrued expenses and a $441,000 increase in deferred revenue. Net cash used in operating activities in 2009 consisted of a $9.9 million net loss, a $1.0 million increase in accrued liabilities and a $667,000 decrease in deferred revenue partially offset by a $1.3 million decrease in accounts receivable. Net cash used in operating activities in 2008 consisted of an $11.9 million net loss, a $1.8 million decrease in deferred revenue, a $1.1 million increase in cash used for discontinued operations, a $926,000 decrease in accounts payable and accrued liabilities, a $436,000 increase in accounts receivable and a $226,000 increase in inventory.

Investing Cash Flows. Net cash provided by investing activities in the three months ended March 31, 2011 consisted of $900,000 of the maturity of marketable securities and release of restricted cash of $100,000, partially offset by the purchase of $181,000 of equipment. Net cash provided by investing activities in the three months ended March 31, 2010 consisted of $2.4 million net effect of the maturities and purchases of marketable securities. Net cash provided by investing activities in 2010 was primarily as the result of the approximately $3.7 million net effect of the maturities and purchases of marketable securities, and the release of $349,000 of restricted cash partially offset by the purchase of $468,000 of equipment. Net cash provided by investing activities in 2009 was primarily the result of the approximately $11.3 million net effect of the maturities and purchases of marketable securities, and the release of $672,000 of restricted cash partially offset by the purchase of $100,000 of equipment. Net cash provided by investing activities in 2008 was primarily as the result of the -62- approximately $10.0 million net effect of the maturities and purchases of marketable securities, an increase in restricted cash of $141,000 and $5.2 million from the sale of our NVM line of business, partially offset by the purchase of $308,000 of equipment. We expect to continue to increase investments in property and equipment in 2011 as we expand our operations.

Financing Cash Flows. Net cash provided by financing activities in the three months ended March 31, 2011 and 2010 was primarily due to the incurrence of indebtedness as discussed above. In 2010, net cash provided by financing activities consisted of aggregate net proceeds of $6.0 million from the subordinated secured convertible promissory notes and net incurrence of debt under our credit facility of $4.3 million for working capital. In 2009, net cash used by financing activities consisted of payments with respect to our loan and security agreement and capital lease obligations. In 2008 net cash used in financing activities consisted of payments with respect to our capital lease obligations partially offset in part by proceeds from the issuance of our common stock upon exercise of employee stock options.

Contractual Obligations

The following table reflects a summary of our contractual obligations as of March 31, 2011:

	Payments due by period				
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 Years**
	(In thousands)				
Credit facilities	$19,618	$910	$18,708	$–	$–
Subordinated secured convertible promissory notes—related parties	6,396	6,396	–	–	–
Operating lease obligations[1]	2,842	556	1,558	728	–
Capital lease obligations[2]	533	216	305	12	–
Other obligations[3]	10,780	10,780	–	–	–
Total	$40,169	$18,858	$20,571	$740	$–

(1) Includes the minimum rental payments for our corporate office building in Seattle, Washington.

(2) Consists of the minimum rental payments plus imputed interest expense on our leased equipment.

(3) Consists of obligations to purchase inventory.

Critical Accounting Policies and Significant Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and related disclosure of contingent assets and liabilities, revenue and expenses at the date of the financial statements. Generally, we base our estimates on historical experience and on various other assumptions in accordance with GAAP that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under other assumptions or conditions.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Our critical accounting policies and estimates include those related to:

- revenue recognition;
- accounts receivable;
- inventory;
- goodwill and long-lived assets;
- income taxes;

- fair value measurements; and
- stock-based compensation.

Revenue Recognition

We generate revenue from sales of our hardware products, software, development and service contracts and licensing agreements. We recognize product revenue when: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and there are no significant post-delivery obligations remaining; (3) the price is fixed or determinable; and (4) collection is probable.

Product Revenue. Hardware products are typically considered delivered upon shipment. Certain arrangements contain provisions for customer acceptance. Where we are unable to demonstrate that the customer acceptance provisions are met on shipment, revenue is deferred until all acceptance criteria have been met or the acceptance clause or contingency lapses.

For the sale of products to a distributor, we evaluate our ability to estimate returns, considering a number of factors, the geography in which a sales transaction originates, payment terms and our relationship and past history with the distributor. If we are not able to estimate returns at the time of sale to a distributor, revenue recognition is deferred until there is persuasive evidence indicating the product has sold-through to an end user. Persuasive evidence of sell-through may include reports from distributors documenting sell-through activity, data indicating an order has shipped to an end user or other similar information. At the time of revenue recognition, we record reserves for estimated sales returns and stock rotation arrangements. Sales returns and stock rotation reserves are estimated based on historical activity and expectations of future experience. We monitor and analyze actual experience and adjust these reserves on a quarterly basis.

Our Speedway reader products are sold in combination with services, which primarily consist of hardware and software support. Hardware support includes Internet access to technical content, repair or replacement of hardware in the event of breakage or failure and telephone and Internet access to technical support personnel during the term of the support period. Software is integrated with our Speedway reader products and is essential to the functionality of the integrated products.

In October 2009, the Financial Accounting Standards Board, or FASB, amended the accounting standards for revenue recognition to remove tangible products containing software components and non-software components that function together to deliver the product's essential functionality from the scope of industry-specific software revenue recognition guidance. In October 2009, the FASB also amended the accounting standards for multiple deliverable revenue arrangements to: (1) provide updated guidance on whether multiple deliverables exist, how the deliverables in an arrangement should be separated and how the consideration should be allocated; (2) require an entity to allocate revenue in an arrangement using best estimated selling prices, or ESP, of deliverables if a vendor does not have vendor-specific objective evidence of selling price, VSOE, or third-party evidence of selling price, or TPE; and (3) eliminate the use of the residual method and require an entity to allocate revenue using the relative selling price method. We elected to early adopt this accounting guidance at the beginning of 2010 on a prospective basis for applicable transactions originating or materially modified after January 1, 2010. This guidance does not generally change the units of accounting for our revenue transactions.

For multi-element arrangements that include hardware products containing software essential to the hardware product's functionality and undelivered software elements relating to the hardware product's essential software, we allocate revenue to all deliverables based on their relative selling prices. In such circumstances, the newly adopted accounting principles establish a hierarchy to determine the selling price to be used for allocating revenue to deliverables as follows: (1) VSOE; (2) TPE; and (3) ESP. VSOE generally exists only when we sell the deliverable separately and is the price actually charged by us for that deliverable. When VSOE cannot be -64- established, we attempt to establish the selling price of each element based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. We are unable to reliably determine what similar competitor products' selling prices are on a stand-alone basis and are therefore typically not able to determine TPE. When we are unable to establish selling price using VSOE or TPE, we use ESP in the allocation of arrangement consideration. The objective of ESP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis.

Our ESPs for the hardware and software products are calculated using a method consistent with the way management prices new products. We consider multiple factors in developing the ESPs for our products including our historical pricing and discounting practices, the costs incurred to manufacture the product, the nature of the customer relationship and market trends. In addition, we may consider other factors as appropriate, including the pricing of competitive alternatives if they exist and product-specific business objectives. We regularly review VSOE and ESP and maintain internal controls over the establishment and updates of these estimates.

We present revenue net of sales tax in our statement of operations. Shipping charges billed to customers are included in product revenue and the related shipping costs are included in cost of product revenue.

Development, Service and Licensing Revenue. We account for nonrecurring engineering development contracts and license contracts that involve significant production, modification or customization of our products by generally recognizing the revenue over the performance period under the percentage of completion, or POC, method measured on a cost incurred basis and when amounts are legally due under the terms of the agreement. Advance payments under these license and development contracts are deferred and recognized as revenue ratably over the contract period. Under the POC method of accounting, sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred and total estimated costs at the completion of the contract. Changes to the original estimates may be required during the life of the contract. Estimates are reviewed periodically and the effect of any change in the estimated gross margin percentage for a contract is reflected in cost of sales in the period the change becomes known. The use of the POC method of accounting involves considerable use of estimates in determining revenue, costs and profits and in assigning the amounts to accounting periods.

We recognize revenue in accordance with industry specific software accounting guidance for stand alone software licenses and related support services. Revenue from license agreements that do not require significant production, modification or customization of our software is generally recognized when: (1) delivery has occurred; (2) there is no customer acceptance clause in the contract; (3) there are no significant post-delivery obligations remaining; (3) the price is fixed; and (4) collection of the resulting receivable is reasonably assured. For transactions, where we have established VSOE for the fair value of support services as measured by the renewal prices paid by our customers when the services are sold separately on a stand alone basis, we use the residual method to determine the amount of software product revenue to be recognized. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the sales amount is recognized as license revenue. Support services revenue is deferred and recognized ratably over the period during which the services are to be performed, which is typically from one to three years. In those instances where we have not established VSOE of our support services, the license and service revenue is recognized on a straight-line basis over the support period.

Amounts allocated to the support services sold with our Speedway reader products are deferred and recognized on a straight-line basis over the support services term.

Accounts Receivable

Accounts receivable consist of amounts billed currently due from customers net of an allowance for doubtful accounts and an allowance for sales returns. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in existing accounts receivable and is determined based on historical write-off experience and on specific customer accounts believed to be a collection risk. Account balances are written off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote.

Inventory

Inventory consists of a combination of raw materials, work-in-progress and finished goods and are stated at the lower of cost and market. Cost is determined using the average costing method, which approximates the first in, first out, or FIFO, method. Reserves for excess and obsolete inventory are established based on our analysis of inventory levels and future sales forecasts. Inventory write-downs are included in cost of revenue and were $894,000, $0 and $592,000 for the years ended December 31, 2008, 2009 and 2010, respectively, and $14,000 and $109,000 for the three months ended March 31, 2010 and 2011, respectively.

Goodwill; Intangibles and Long Lived Assets

Goodwill represents the excess of the purchase price over the fair value of the net identified assets acquired in a business combination. We evaluate the goodwill which is assigned to our Indy reader IC reporting unit for impairment on an annual basis on September 30 or when indicators for impairment exist. Indicators of impairment would include the impacts of significant adverse changes in legal factors; market and economic conditions; the result of our operational performance and strategic plans; adverse actions by regulators; unanticipated changes in competition and market share; and the potential for sale or disposal of all or a significant portion of our business. A significant impairment could have a material adverse effect on our financial position and results of operations. No impairment charge for goodwill was recorded during the years ended December 31, 2008, 2009 and 2010.

Long-lived assets include property and equipment life. We assess the carrying value of our long-lived assets and intangible assets with a definite life when indicators of impairment exist and recognize an impairment loss when the carrying amount of an asset is not recoverable from the undiscounted cash flows expected to result from the use and eventual disposition of the asset. Impairment losses are measured by comparing the carrying amount of a long-lived asset to its fair value.

Identifiable intangible assets are comprised of purchased customer lists, patents and developed technologies. Identifiable intangible assets are amortized over their estimated useful lives, ranging from seven to eight years for customer lists, four years for developed technology and seven years for patents, using the straight-line method.

Property and equipment are recorded at cost. Depreciation is determined using the straight-line method over the estimated useful life of the assets. Additions and improvements that increase the value or extend the life of an asset are capitalized. Ordinary repairs and maintenance are expensed as incurred. Assets under capital leases and leasehold improvements are amortized over the shorter of the term of the lease or the estimated useful life of the asset.

Income Taxes

We use the liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the financial statement -66- carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates expected to be in effect when such assets and liabilities are recovered or settled. The effect on deferred tax

assets and liabilities of a change in tax rates is recognized in the year that includes the enactment date. We determine deferred tax assets including net operating losses and liabilities, based on temporary differences between the book and tax bases of assets and liabilities. We believe that it is currently more likely than not that our deferred tax assets will not be realized and as such, a full valuation allowance is required.

We utilize a two-step approach for evaluating uncertain tax positions. Step one, recognition, requires us to determine if the weight of available evidence indicates that a tax position is more likely than not to be sustained upon audit, including resolution of related appeals or litigation processes, if any. If a tax position is not considered "more likely than not" to be sustained, no benefits of the position are recognized. If we determine that a position is "more likely than not" to be sustained, then we proceed to step two, measurement, which is based on the largest amount of benefit which is more likely than not to be realized on effective settlement.

At December 31, 2010, we had federal net operating loss carryforwards, or NOLs, of approximately $105.9 million and federal research and experimentation credit carryforwards of approximately $5.1 million, which may be used to reduce future taxable income or offset income taxes due. These NOLs and credit carryforwards expire beginning in 2020 through 2029.

Our realization of the benefits of the NOLs and credit carryforwards is dependent on sufficient taxable income in future fiscal years. We have established a valuation allowance against the carrying value of our deferred tax assets, as it is not currently more likely than not that we will be able to realize these deferred tax assets. In addition, utilization of NOLs and credits to offset future income subject to taxes may be subject to substantial annual limitations due to the "change in ownership" provisions of the Internal Revenue Code of 1986, or the Code, and similar state provisions. Events that cause limitations in the amount of NOLs that we may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50%, as defined by Code Section 382, over a three-year period. Utilization of our NOLs and tax credit carryforwards could be significantly reduced if a cumulative ownership change of more than 50% has occurred in our past or occurs in our future.

We do not anticipate that the amount of our existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. Due to the presence of NOLs in most jurisdictions, our tax years remain open for examination by taxing authorities back to 2000.

Fair Value Measurements

We record short-term investments and preferred stock warrant liabilities at fair value. We establish fair value of our assets and liabilities using the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price) and a fair value hierarchy based on the inputs used to measure fair value. The three levels of the fair value hierarchy are as follows:

Level 1—Quoted prices in active markets for identical instruments.

Level 2—Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

Whenever possible, we use observable market data and rely on unobservable inputs only when observable market data is not available. Our preferred stock warrants are categorized as Level 3 because they were valued based on unobservable inputs and our judgment due to the absence of quoted market prices, inherent lack of liquidity and the long-term nature of such financial instruments. We perform a fair value assessment of the preferred stock warrant inputs on a quarterly basis using the Black-Scholes model. The assumptions used in the Black-Scholes model are inherently subjective and involve significant judgment. Any change in fair value is recognized as a component of other income (expense) on the statements of operations.

Stock-Based Compensation

We have granted stock options at exercise prices believed to be equal to the fair market value of the common stock underlying such options as determined by our board of directors, with input from management, on the date of grant. Because our common stock is not currently publicly traded, our board of directors exercises significant judgment in determining the fair market value of our common stock. Members of our board of directors and management team have extensive business, financial and investing experience. In assessing the fair value of our common stock as of option grant dates, our board of directors considered numerous objective and subjective factors including:

- our financial projections and future prospects;
- the current lack of marketability of our common stock as a private company;
- the stock price performance of comparable public companies;
- the hiring of key personnel;
- the likelihood of achieving a liquidity event for the shares of common stock underlying the options, given prevailing market conditions;
- our results of operations, history of losses and other financial metrics
- conditions in our industry and the economy generally; and
- valuations of our common stock performed as of January 1, June 30, September 30 and December 31, 2010.

As of each stock option grant date listed below, our board of directors believes it made a thorough evaluation of the relevant factors to determine the fair market value of our common stock and accordingly set the exercise price of the options granted equal to its estimate of the fair value of our common stock determined as of such date. On each option grant date, our board of directors considered the most recent valuation of our common stock as one of several factors in estimating the fair market value of our common stock. In addition, our board of directors considered changes in our financial condition that had occurred subsequent to the previous valuation date, then current general economic and market conditions as described more fully below and the other objective and subjective factors described above. Based on these considerations, our board of directors also determined that no significant change in our business or expectations of future business had occurred as of each grant date since the most recent valuation that would have warranted a materially different determination of value of our common stock than that suggested by the valuation. The valuations were consistent with the guidance and methods outlined in the AICPA Practice Aid *Valuation of Privately-Held-Company Equity Securities Issued as Compensation,* or AICPA Practice Aid, for all option grant dates listed below.

January 2010 Valuation. In conducting the January 2010 valuation of our common stock we used a two-step methodology. First we estimated the market value of invested capital, or MVIC, of us as a whole (which is defined as interest-bearing debt plus market value of preferred and common equity), and then we allocated the enterprise value to each element of the capital structure, including our common stock, to determine the fair value of a single share of common stock.

We estimated our MVIC using the market and guideline public company approaches. The market approach entailed analyzing acquisitions involving companies similar to us and our acquisition of the UHF RFID assets -68- from Intel Corporation and applying the MVIC to revenue ratios implied by such acquisitions to our revenue projections. The market approach suggested that our MVIC was between $73.0 million and $126.5 million, and we used their average, $84.6 million.

The guideline public company approach entailed applying the stock price to revenue ratios of public companies similar to us to our revenue projections. The guideline public company approach suggested that our MVIC was between $38.2 million and $53.7 million, and we used their average, approximately $46.0 million. The valuation suggested by the guideline public company approach was less than that suggested by the market approach because it assumed the sale of our shares that represent a minority interest of our capital stock instead of the sale of control of us.

The resulting estimates of our MVIC were then allocated to the various securities that comprise our capital structure, using the Black-Scholes option-pricing model. This option pricing model treats the rights of the holders of preferred and common stock as equivalent to that of call options on any value of the enterprise above certain break points of value based on the claims of lenders and the liquidation preferences and rights of participation and conversion of the holders of preferred stock. To determine the break points, we made estimates of the anticipated timing of a potential acquisition of us and estimates of the volatility of our equity securities based on available information on volatility of stocks of publicly-traded companies similar to ours.

We applied the Black-Scholes option model based on a liquidity event that would occur one to five years in the future. We assumed volatilities of our common stock of 50% and 70%, which corresponds to the upper half of the range of the volatilities of common stock of the publicly-traded companies deemed to be similar to us. The risk-free interest rate was based on U.S. Treasury Securities matching the expected timing of the liquidity event. Based on this information, we determined the total value of each security. A discount was then applied to reflect the lack of marketability of our common stock based on put option analyses of the publicly-traded companies deeded to be similar to us. Such discounts ranged from 29% for a liquidity event assumed to occur in one year to 34% for a liquidity event assumed to occur in five years.

Finally, we considered two possible scenarios: (1) a change of control transaction and (2) the sale by a common stockholder of shares that represent a minority interest in a private company. At the time of the January 2010 valuation, we did not consider an initial public offering as a third potential liquidity event because we deemed the likelihood of such a scenario was remote. We applied a range of probabilities for the two scenarios, beginning with the probability of a change of control and sale of a minority interest of 80% and 20%, respectively, and ending with 40% and 60%, respectively. The fair market value of our common stock suggested by the January 2010 valuation was $0.03 to $0.08 per share.

June 2010 Valuation. The June 2010 valuation was conducted using substantially the same methodology as the January 2010 valuation. We did not consider an initial public offering as a third potential liquidity event because, at the time of such valuation, the values suggested by such scenario appeared to be less favorable compared to a change of control transaction. The fair market value of our common stock suggested by the June 2010 valuation was $0.04 to $0.10 per share.

September 2010 Valuation. The September 2010 valuation was conducted using substantially the same methodology as the January 2010 valuation. We did not consider an initial public offering as a third potential liquidity event because, at the time of such valuation, the values suggested by such scenario appeared to be less favorable compared to a change of control transaction. The fair market value of our common stock suggested by the September 2010 valuation was $0.05 to $0.11 per share.

December 2010 Valuation. The December 2010 valuation was conducted using substantially the same methodology as the January 2010 valuation; however, in addition to considering a change of control transaction and sale of a minority interest in a private company, we also considered the possibility that we would complete an initial public offering of our common stock. For the purpose of the December 2010 valuation, we fixed the -69- probability of the sale of a minority interest in a private company at 40% and applied a range of probabilities for the other two scenarios, beginning with the probability of a change of control and sale of a minority interest of a public company of 40% and 20%, respectively, and ending with 20% and 40%, respectively. The fair market value of our common stock suggested by the January 2010 valuation was $0.12 to $0.21 per share.

In connection with the preparation of our financial statements for the year ended December 31, 2010 and the three months ended March 31, 2011, we assessed our estimate of fair value of our common stock for financial reporting purposes given our improving financial performance and prospects, evolving belief during the second half of 2010 and the first quarter of 2011 that an initial public offering was increasingly viable and the generally improving conditions in the capital markets. In the process of this assessment, we evaluated the stock price-to-revenue multiples of public companies we deemed similar to us in light of our historical and forecasted financial results. While these multiples had been one of the factors we considered in connection with our prior valuations, in connection with the assessment of the estimate of the fair value of our common stock for financial reporting purposes we

determined that it was more appropriate to give much greater weight to revenue multiples given the increased likelihood of an initial public offering. We did not consider stock price-to-earnings multiples of such companies because we did not believe they would be meaningful given our stage of development. As a result of such assessment, we determined that for financial reporting purposes the fair value of our common stock was higher than the board of directors' fair market value estimate for each of the option grant dates from May 26, 2010 through February 24, 2011. As a result, we retroactively adjusted the fair value per common share as of each such grant date based on the progress of our business at each relevant date, giving particular emphasis to the amount of revenue for each quarter relative to the total historical and forecasted revenue for the period we assessed.

From January 1, 2010 through the date of this prospectus, we granted stock options with exercise prices and fair value assessments as follows:

Grant Date	Common Shares UnderlyingOptions Granted	Exercise Price Per Share	Fair Value Per Common Sharefor FinancialReporting Purposesat Grant Date	Intrinsic Value Per UnderlyingCommon Share
February 24, 2010	55,000	$0.05	$0.05	$—
May 26, 2010	226,500	0.07	0.16	0.09
August 5, 2010	1,472,000	0.09	0.32	0.23
November 3, 2010	187,500	0.11	0.50	0.39
January 26, 2011	336,500	0.18	0.75	0.57
February 24, 2011	4,186,000	0.18	0.75	0.57
April 20, 2011	348,000	1.02	1.02	—

Based on an assumed initial price to public of $ per share, the mid-point of the price range set forth on the cover page of this prospectus, the intrinsic value of stock options outstanding at March 31, 2011 was $ million, of which $ million and $ million related to stock options that were vested and unvested, respectively, at that date.

We account for stock-based compensation at fair value. Stock-based compensation costs are recognized based on their grant date fair value estimated using the Black-Scholes model. Stock-based compensation expense recognized in the statement of operations is based on options ultimately expected to vest and has been reduced by an estimated forfeiture rate based on our historical and expected forfeiture patterns.

Determining the fair value of stock-based awards at the grant date under the Black-Scholes model requires judgment, including estimating the value per share of our common stock, volatility, expected term and risk-free interest rate. The assumptions used in calculating the fair value of stock-based awards represent our best estimates based on management judgment and subjective future expectations. These estimates involve inherent -70- uncertainties. If any of the assumptions used in the Black-Scholes model significantly change, stock-based compensation for future awards may differ materially from the awards granted previously.

We use the straight-line method of allocating compensation cost over the requisite service period of the related award. The expected term of options granted is based on historical experience of similar awards and expectations of future employee behavior. The risk-free rate for the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant. We based our estimate of volatility on the estimated volatility of similar entities whose share prices are publicly available. We have not paid and do not anticipate paying cash dividends on our common stock; therefore, the expected dividend yield is assumed to be zero. Key assumptions utilized in estimating the fair values of stock-based awards are as follows:

	Year Ended December 31,			Three Months Ended March 31	
	2008	2009	2010	2010	2011
Risk-free interest rates	2.7%-3.5%	2.2-3.0%	1.5%-2.8%	2.2%-2.8%	2.0%-2.6%
Expected term	6.0 years	5.3-6.3 years	5.0-6.3 years	5.0-6.3 years	5.0-6.3 years
Expected dividend yield	$—	$—	$—	$—	$—
Volatility	70.0%	57.4%-58.8%	45.6%-46.6%	46.6%	45.3%-45.7%

The weighted-average grant date fair value per share of employee stock options granted during 2008, 2009 and 2010 was $0.30, $0.05 and $0.24, respectively. The weighted-average grant date fair value per share of employee stock options granted during the three months ended March 31, 2010 and 2011 was $0.02 and $0.61, respectively. The total compensation cost related to unvested stock option grants not yet recognized as of March 31, 2011 was $2.6 million, and the weighted-average period over which these grants are expected to vest is 3.8 years. The total fair value of options vested during the year was $389,000, $217,000 and $306,000 for 2008, 2009 and 2010, respectively. The total fair value of options vested during the three months ended March 31, 2010 and 2011 was $76,000 and $102,000.

Off-Balance Sheet Arrangements

Since inception, we have not had any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for another contractually narrow or limited purpose.

Inflation

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could adversely affect our business, financial condition and results of operations.

Quantitative and Qualitative Disclosures about Market Risk

The principal market risk we face is interest rate risk. We had cash, cash equivalents and short-term marketable securities of $6.7 million as of December 31, 2010 and $12.1 million as of March 31, 2011. The goals of our investment policy are liquidity and capital preservation; we do not enter into investments for trading or speculative purposes. Our investment policy allows us to maintain a portfolio of cash equivalents and investments in a variety of securities, including U.S. government agencies, corporate bonds and commercial paper issued under the FDIC Temporary Liquidity Guarantee Program and money market funds. We believe that we do not have any material exposure to changes in the fair value of these assets as a result of changes in interest rates due to the short term nature of our cash, cash equivalents and short-term marketable securities. Declines in interest rates, however, would reduce future investment income. A 1% decline in interest rates, occurring January 1, 2010 and sustained throughout the period ended December 31, 2010, would not have been material.

We are subject to interest rate risk in connection with the borrowings under our credit facility, which accrue interest at variable rates. As of March 31, 2011, our borrowings under our credit facility and mezzanine facility had a blended rate of 7.8%. As of December 31, 2010, our borrowings under our credit facility had a blended rate of 4.3%. Assuming the credit facilities is fully drawn and holding other variables constant, a 1% increase in interest rates, occurring January 1, 2011 and sustained throughout the period ended December 31, 2011, would result in an increase in annual interest expense and a decrease in our cash flows and income before taxes of approximately $240,000 per year.

Prices for our products are denominated in U.S. dollars and, as a result, we do not face significant risk with respect to foreign currency exchange rates.

Business

BUSINESS

Who We Are

Impinj is the leading provider of UHF RFID solutions for identifying, locating and authenticating everyday items. We believe our technology platform, known as GrandPrix, is the most comprehensive and widely adopted in our industry. GrandPrix's key elements are Monza tag ICs, Indy reader ICs and Speedway readers and subsystems. RFID systems built on GrandPrix deliver real-time information about tagged items, thereby enabling applications and analytics designed to improve business decisions and enhance consumer experience. Leading retail, apparel, pharmaceutical, food and beverage, technology and logistics companies as well as government agencies rely on our GrandPrix platform. We are the technology leader in our industry, with 90 issued and allowed U.S. patents and 77 pending U.S. patent applications as of April 15, 2011. We have sold over two billion Monza tag ICs since its introduction in 2005, including 940 million in 2010 alone.

We focus exclusively on UHF RFID solutions. UHF RFID enables writing individualized information to and reading information from tagged items without line of sight and at longer range, higher speed, lower cost and with more automation than any competing technology. We embrace the global industry standard for UHF RFID, called UHF Gen2, which we extend through our leadership in the standards-setting process and enhance with our proprietary technologies and deep domain expertise. UHF Gen2 is the fastest growing segment of the RFID market. UHF Gen2 systems are ideally suited for high-volume, item-level applications that require low-cost, consumable tags, such as retail inventory management, pharmaceutical authentication and airline baggage tracking. VDC projects the number of UHF Gen2 ICs shipped will grow from 1.6 billion in 2010 to 41.0 billion in 2015, a compound annual growth rate, or CAGR, of 92.2%.

From 2009 to 2010, unit sales of our Monza UHF Gen2 tag ICs increased by 279%. We believe that Impinj leads the market in UHF Gen2 tag ICs, reader ICs and stationary readers with estimated 60%, 86% and 25% share, respectively, based on VDC data. We estimate that Impinj enables more than 70% of the UHF Gen2 reader market when we combine the share of our Speedway reader with that of other readers based on our Indy reader ICs. We believe that end users' return on investment, or ROI, from UHF Gen2 systems and our market leadership position are driving our rapid growth.

We sell to a broad and well-established ecosystem of more than 450 inlay manufacturers, reader OEMs, distributors, system integrators, VARs and other technology companies, as well as to end users. Our ecosystem relies on the elements of our GrandPrix platform to deliver UHF Gen2 solutions to end users in wide-ranging markets, such as Walmart and Banana Republic for apparel inventory management, Coca-Cola for product authentication in next-generation beverage dispensers and LS Industrial Systems for tracking and authenticating pharmaceuticals.

We believe current applications of UHF Gen2 represent the tip of the iceberg for adoption of this technology. We envision a future when a broad array of everyday items are linked to networked information systems, thereby enabling significantly improved visibility, understanding and analysis of those items' location and attributes. This global network of connected objects is often referred to as the "Internet of Things." We believe that UHF Gen2 technology, powered by Impinj, is helping to make that vision a reality.

We use third-party foundries and subcontractors to produce our ICs and contract manufacturers to assemble our readers and subsystems. This capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and solutions while continuing to build our reputation as the UHF Gen2 leader. For 2009, 2010 and the three months ended March 31, 2011, our revenue was $20.8 million, $31.8 million and $12.3 million, respectively, and our net losses from continuing operations were $9.9 million, $11.4 million and $1.8 million, respectively.

RFID Industry

RFID technology has been employed for decades. Legacy RFID technologies, such as those that operate in the LF or HF bands, have been employed for years in specialized applications such as animal tagging and in security applications such as access cards. More recently, the market for UHF systems has grown rapidly as companies deploy enterprise-scale UHF RFID systems to realize the ROI those systems deliver. With their lower power requirements, superior performance, lower cost and single industry standard, UHF Gen2 systems are ideally suited for item-level, high-volume applications that require disposable tags. Unlike other semiconductor markets, we believe the consumable nature of UHF Gen2 tags will drive ongoing purchases and sustained tag volumes. Furthermore, we expect that a number of trends, including ubiquitous network connectivity, internet-enabled commerce and the need to identify, authenticate and track items in increasingly complex business environments will accelerate broader adoption of UHF Gen2 systems. VDC projects the number of UHF Gen2 ICs shipped will grow from 1.6 billion in 2010 to 41.0 billion in 2015, a CAGR of 92.2%.

Taxonomy of RFID

RFID systems may be classified by their operating frequencies and the means by which their tags obtain power and reply to readers. Most commercial systems operate in LF, HF or UHF radio bands. RFID tags are categorized as passive, battery-assisted passive or active based on their power source. Passive tags receive their operating power from the radio signals transmitted by an RFID reader and reply by reflecting information back to the reader. Battery-assisted passive tags power their internal electronics from a battery, but reply in the same manner as passive tags. Active tags use a battery to power both their internal electronics and their radio communications. Currently, we focus exclusively on solutions using passive, UHF Gen2 RFID.

The key performance characteristics that determine an RFID system's suitability for a given application are identification rate, read and write range, write speed and cost. Identification rate is the rate at which a reader uniquely identifies tags when multiple tags are within that reader's field of view. Identification rates can exceed 1,000 tags per second for UHF Gen2 systems but are typically less than 50 tags per second for legacy LF and HF systems. Read and write range measures the maximum communication distance between a reader and a tag when identifying and writing, respectively, and can exceed 30 feet for UHF Gen2 systems but is typically less than three feet for legacy LF and HF systems. Write speed is the rate at which an encoder can write all the requisite information to a tag, and can exceed 1,500 tags per minute for UHF Gen2 systems. For applications that consume large volumes of tags, tag cost is the dominant cost factor determining a system's suitability. UHF Gen2 tags are typically much less expensive than LF and HF tags.

LF systems are typically used in applications such as animal tagging, access control and keyless automobile ignition systems. HF systems are known for their security features that protect tag data and are often used for access control, smart cards, e-passports and near-field communication, or NFC, used for payment transactions among other applications. Because neither LF nor HF systems possess the combination of speed, range and low cost that UHF Gen2 systems offer, these legacy systems are generally considered unsuitable for high-volume, item-level applications. In contrast, the attributes of UHF Gen2 systems make them ideally suited for high-volume, item-level applications that require consumable tags, such as retail inventory management, pharmaceutical authentication and airline baggage tracking. Nearly all UHF RFID systems entering deployment today implement the UHF Gen2 protocol, a single worldwide standard conceived and championed by end users, unlike LF and HF systems which are governed by multiple, competing standards conceived by technology vendors.

According to VDC, the markets for LF and HF RFID systems were $456.2 million and $1.2 billion, respectively, in 2010, while the market for UHF Gen2 systems was $354.1 million. The expected growth of the UHF Gen2 market significantly exceeds growth of the LF and HF markets. According to VDC, the LF and HF RFID markets are expected to grow at a CAGR of 4.9% and 18.4%, respectively, from 2010 to 2015, compared to 59.8% for UHF Gen2 for the same period.

Elements of a UHF Gen2 RFID System

The building blocks of a UHF Gen2 system are tags, readers and software. Tags are affixed to items and contain unique information about those items. Readers interrogate the tags and convey the item information to enterprise systems. Software performs tasks ranging from filtering redundant tag reads to analyzing the item information.

Tags. A tag includes a tag IC, an antenna, a substrate and finishing. Each tag contains a unique code that allows the item to which the tag is attached to be identified, authenticated and tracked. In some applications the tag may also store additional data, such as a unique identifier for the tag itself or more detailed information about the tagged item.

- *Tag IC*: The tag IC includes a radio to communicate with a reader, a simple processor and memory.
- *Antenna*: The antenna, typically made from aluminum or silver ink, is formed on the substrate and electrically coupled to the tag IC.
- *Substrate*: The substrate to which the tag IC and antenna are affixed is typically made from either plastic or paper.
- *Finishing*: A substrate with an antenna and an affixed tag IC is called an inlay. Some UHF Gen2 applications use an inlay with no additional finishing, while other RFID applications, for example consumable RFID-enabled apparel hang tags, require that the inlay be embedded in paper stock in a process known as conversion. A converted inlay is known as a tag or label.

Readers. A reader is a radio that communicates with tags, processes tag information and relays tag information to and from enterprise systems. A UHF Gen2 reader powers tags wirelessly; identifies individual tags; reads, writes, locks and in some instances disables tags; and communicates tag information over a network. A reader may also perform various advanced functions such as searching for tags that meet selection criteria (for example, search for all size 31×32 jeans) or reading product information from an inventoried tag. A reader may be based on discrete components or on an integrated reader IC. A reader requires an antenna to communicate over the air and a network connection to communicate with an enterprise system or other device.

Readers may be stationary, mobile or embedded. Stationary readers are often mounted to a wall or ceiling, such as at a loading dock. Mobile readers are typically specialized hand-held devices, but may also be included in devices such as forklifts and cell phones. Embedded readers are embedded within a host device, such as a point-of-sale terminal, or a product dispenser and identify tagged items for the host.

Software. UHF Gen2 systems use software on the reader, in host systems or devices that support the reader and in enterprise data systems that analyze tag information. On-reader software manages reader operations and performs tag-specific functions such as determining a tag's direction of travel or writing an electronic product code, or EPC, number into a tag. Host software generally manages tag data, for example, correlating tag -75- information from multiple readers to determine where a tag is located on a sales floor. Enterprise software analyzes tag data to drive business decisions such as determining when to restock store shelves or run promotions.

UHF Gen2 RFID

The development of the UHF Gen2 standard was, and continues to be, driven by end-user requirements. A critical end-user requirement is that UHF Gen2 be the single, worldwide standard for retail RFID. In contrast, technology providers have typically driven specifications for other RFID standards, often leading to competing standards that end users are reluctant to adopt. GS1 EPCglobal, a nonprofit industry association, created the UHF Gen2 standard and a corresponding EPC numbering system to assign unique numbers to UHF Gen2-tagged items. GS1 EPCglobal also created other standards and guidelines related to data storing, data sharing, reader operations and tag applications. As of March 31, 2011, GS1 EPCglobal had over 950 end-user members, including many of the world's leading retail, apparel, logistics and pharmaceutical companies. UHF Gen2 was ratified by GS1 EPCglobal in 2004 and then by the International Standards Organization, or ISO, in 2006 as ISO 18000-6C. The next enhancement to the UHF Gen2 standard, known as Gen2 V2 and which GS1 EPCglobal has planned for ratification in 2012, will address tag security, authentication, loss prevention, file management and limiting traceability. End users require that Gen2 V2 be fully backward compatible with today's Gen2 standard.

The Growth of the UHF Gen2 Market

Beginning in the early 2000s retailers and consumer-goods companies piloted UHF Gen2 for pallet- and case-level tagging. Their primary goal was to improve the efficiency of their supply chains. Their initiatives failed to gain significant traction primarily because the merchandise suppliers bore most of the tagging costs while the retailers realized most of the benefits. In the mid-2000s a few leading retailers began investigating tagging individual items to improve store-floor visibility, particularly for apparel. In addition, others began item-tagging initiatives focused on food safety, pharmaceutical anti-counterfeiting and loss prevention. By 2010 some major retailers, including Walmart, Bloomingdale's and J.C. Penney, began enterprise-wide UHF Gen2 deployments based on item-level tagging.

We believe that apparel retailers are adopting UHF Gen2 systems because of demonstrable ROI. UHF Gen2 systems can identify every tagged garment in a stack in a fraction of a second, enabling daily store-floor inventorying, even while customers remain in the store. Item-level, real-time inventory visibility allows retailers to reduce out-of-stocks and overstocks, carry less inventory, better meet consumers' needs and make better business decisions. University of Arkansas studies demonstrate that RFID item tagging significantly improves store-floor inventory accuracy.

We believe demand for UHF Gen2 systems will grow both by further penetration into existing applications such as apparel tagging and by expansion into myriad other high-volume applications. In consumer retail, UHF Gen2 growth prospects include tagging of consumer electronics, cosmetics and jewelry. A number of governments have mandated UHF Gen2-based tagging of automobiles, pharmaceuticals and liquor. Manufacturing logistics, postal applications and food safety exhibit great promise. These examples represent just some of the applications that we believe will contribute to sustained market growth.

Our GrandPrix Platform

We believe that Impinj has the only UHF Gen2 technology platform, industry-leading product performance and leading market share in each of our product lines. Our GrandPrix platform tightly integrates numerous elements, including Monza tag ICs, reference tag antenna designs, reader antennas, Indy reader ICs, Speedway readers and subsystems, OEM reader reference designs, APIs, application software and services. Our ecosystem partners develop GrandPrix-based UHF Gen2 systems and deploy them at leading retail, apparel, pharmaceutical, food and beverage, technology and logistics enterprises. GrandPrix provides superior performance, proprietary system enhancements and a comprehensive development environment.

The following is a graphic depiction of our GrandPrix platform.

Our integrated GrandPrix platform offers numerous benefits to our ecosystem partners and end users, including:

- ***Superior performance.*** We believe that each of our products, individually, has best-in-class performance, and when integrated together delivers the best system performance in the industry. We base our belief on both field experience and industry data, such as the January 2011 ABI Research passive UHF tag IC Vendor Matrix ranking that placed us first in both innovation and implementation. Just one example of best-in-class performance is the superior write speed of our Monza tag ICs, which allows our Source Tagging Platform, or STP, to encode Monza-based tags at rates that are able to keep pace with high-speed apparel and pharmaceutical manufacturing lines.

- ***Proprietary system enhancements.*** We use our deep domain expertise to solve the most difficult challenges in UHF Gen2 and embed our proprietary solutions into GrandPrix. For example, traditional UHF tags are not readable when the tag antenna is aligned end-on to the reader antenna. To solve this problem, we developed our patent-pending True3D technology that enables orientation-insensitive tags. As another example, many UHF Gen2 systems face the challenge of hard-to-read tags, such as a tag at the bottom of a stack of jeans on a metal shelf. To address this problem, we include our patent-pending TagFocus technology in our Monza tag ICs, Indy reader ICs and Speedway readers.

- ***Comprehensive development environment.*** We strive to empower our ecosystem partners to develop complete systems for end users and further their preference for our GrandPrix platform. For our Speedway and Indy products we offer development environments, easy-to-use APIs, SDKs, software drivers and libraries, upgrade agents, sample application code and application software. Additionally, we focus on training our ecosystem partners and providing them the know-how and tools they need to deliver complete systems to their customers. We also provide them with application notes and white papers and offer them web-based support and access to our product-application engineers.

Our Competitive Strengths

We are the leading provider of UHF Gen2 solutions and believe we can maintain this position by leveraging our competitive strengths, including:

- ***Our market and technology leadership***. Our exclusive focus on the high-growth UHF Gen2 market and our resulting deep domain knowledge and systems engineering expertise has allowed us to become the market leader. Impinj leads the market in UHF Gen2 tag ICs, reader ICs and stationary readers with

estimated 60%, 86% and 25% share, respectively, based on VDC data. We believe that our products have been first-to-market in several UHF Gen2 product categories, including the first tag IC, the first high-performance reader IC and the first high-performance stationary reader. Our first-mover advantage has, in part, enabled us to establish and maintain our market-share leadership. We believe our exclusive focus on the UHF Gen2 market allows us to be more nimble, innovation-focused and better able to identify and capture opportunities.

- ***Our platform approach***. We believe that Impinj is the only company that provides an integrated UHF Gen2 product suite. When our ecosystem partners deploy GrandPrix-based systems as an integrated whole, end users benefit from system performance and ease-of-use that we believe cannot be equaled by "mix and match" implementations. In addition, the knowledge we gain from developing one component of a UHF Gen2 system often allows us to optimize other components while improving our domain expertise, which makes us an attractive partner in the critical "design-in" phase of end users' vendor selection processes.

- ***Our intellectual property portfolio***. We own a strong intellectual property portfolio with 90 issued and allowed U.S. patents and 77 U.S. patent applications as of April 15, 2011. These patents cover UHF Gen2 system design, tag ICs, reader ICs, readers, software, firmware and antenna designs. We also own several trademarks that protect our company and product brands. We expect these trademarks will increase in value as the UHF Gen2 market grows and as we continue to demonstrate our market leadership.

- ***Our standards leadership***. We have taken leadership roles in establishing RFID standards at worldwide governing bodies, including GS1 EPCglobal. Our active role in driving standardization of RFID technology has enabled us to maintain our leadership in UHF Gen2 products and to promote the adoption of our technical innovations in the marketplace.

- ***Our broad and well-established ecosystem***. We sell to an ecosystem of more than 450 inlay manufacturers, reader OEMs, distributors, system integrators, VARs and other technology companies. In addition, end users solicit our domain knowledge and systems engineering expertise to develop applications that are tailored to their needs. We leverage this understanding of end users' needs to secure design wins with inlay manufacturers, reader OEMs and end users.

- ***Our capital-efficient operating model***. We use third-party foundries and assembly subcontractors to produce our ICs, and we use contract manufacturers to assemble our readers and subsystems. This capital-efficient operating model is designed to scale efficiently as our volume grows, allowing us to focus our resources on developing new products and new solutions, while continuing to build our reputation as the UHF Gen2 leader.

Our Strategy

We strive to accelerate UHF Gen2 market adoption and extend our GrandPrix platform's leadership while growing revenue profitably. Key elements of our strategy are to:

- ***Deliver the most innovative UHF Gen2 solutions***. We will continue to innovate to extend our significant UHF Gen2 technology leadership. By leveraging our end-user engagements, deep domain knowledge in UHF RFID and systems engineering expertise, we are well positioned to offer innovative, differentiated products and applications. Given the multi-year lifecycle of UHF Gen2 deployments, we believe that design wins earned today will engender continued customer preference for systems that employ our products in the future.

- ***Embrace and extend the UHF Gen2 standard***. We intend to continue our active leadership role within GS1 EPCglobal because we believe this role enables us to extend the UHF Gen2 standard and influence its future direction. We believe that the insights we gain through our involvement in the standards-setting process allow us to deliver first-to-market, standards-compliant products with the potential for broad market acceptance. In addition, we believe our knowledge of these standards allows

us to offer enhanced, proprietary product features that generate greater ROI for end users, justify premium pricing, deepen end-user reliance on Impinj-based systems and allow us to maintain leading market share.

- ***Commercialize new use cases***. We intend to continue to actively engage customers and end users to identify key market needs and to develop or enable application-specific solutions that address large market opportunities. By expanding deployment of our UHF Gen2 solutions into new use cases and markets, we hope to accelerate growth of the markets for our products, maintain our market-leading position and further exploit the economies of scale as we grow.

- ***Expand our implementation and go-to-market partnerships***. We intend to continue to broaden and deepen our relationships with inlay manufacturers, reader OEMs, distributors, VARs, system integrators, software providers and other technology companies, as well as with end users. By leveraging these relationships we expect to continue to identify, target and deliver complete solutions to end users in existing and new markets and applications.

Our Products

Our products include Monza tag ICs and associated antenna reference designs; Indy reader ICs and associated reference designs; Speedway readers and Speedway-based subsystems; reader antennas; application software; and non-recurring engineering, or NRE, developments.

Monza Tag ICs and Antenna Reference Designs

We introduced the first UHF Gen2 tag IC, Monza 1, in 2005, more than a year ahead of any competing UHF Gen2 IC offering. Over the past six years we have sold more than two billion Monza ICs, including over 940 million in 2010 alone. We offer a family of Monza ICs including standard-feature tag ICs targeted at applications that require an EPC code but little or no additional functionality and premium-feature tag ICs targeted at applications that require special functionality or additional memory and can accommodate higher pricing.

- *Standard-feature ICs*. Our standard-feature product line includes Monza 3, which has been in volume production since 2008, and its replacement Monza 5, which we released in April 2011. Monza 5 improves on Monza 3 with 33% greater range, three times greater write speed and unique serial numbers on each tag IC.

- *Premium-feature ICs*. Our premium-feature product line includes Monza 4D, 4E and 4QT. Monza 4D includes True3D, 76% greater read range than Monza 3 with a True3D antenna and a unique tag serial number. Monza 4E includes all the features of Monza 4D and adds support for alphanumeric EPCs. Monza 4QT includes all the features of Monza 4D, adds 512 bits of user memory and also offers QT technology. QT technology provides security features that address consumer privacy when a retailer uses Monza 4QT in electronic-article surveillance applications and that address data security when end users store sensitive information in user memory.

When used in conjunction with a GrandPrix-based reader, Monza 4 and Monza 5 offer the following additional patent-pending value-added features:

- TagFocus, which allows a GrandPrix-based reader to focus on identifying hard-to-read tags.

- FastID, which allows a GrandPrix-based reader to rapidly obtain the tag IC's unique serial number for anticounterfeiting purposes.

- SafeWrite, which allows a GrandPrix-based reader to avoid data errors when encoding Monza tags, such as on high-speed manufacturing lines.

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We sell most Monza tag ICs in wafer form. Our customers use specialized machines to pick the ICs from a wafer and attach each IC onto an antenna to form an inlay.

Monza wafer | Monza-based tag

We also sell Monza ICs in packaged form for high-reliability applications such as inlays built on printed-circuit boards. We provide reference antenna designs for a variety of applications, including True3D designs for long-range, high-performance designs for applications like tire tagging and miniature designs for short-range applications like jewelry tagging. We also provide reference designs for specialized applications such as the tagging of metal objects or liquid-filled containers.

Indy Reader ICs and Reference Designs

We entered the reader IC market in 2008 by acquiring Intel's reader IC business. Our product line today comprises three Indy reader ICs, the R500, R1000 and R2000. The R500 is our entry-level IC focused on embedded applications. The R1000 is our mid-range IC focused on handheld reader applications. The R2000 is our flagship offering focused on stationary reader applications. All three ICs incorporate the key radio functionality needed to implement a UHF Gen2 reader, and all three employ a common API, development environment, drivers and libraries.

We strive to create and promote a preference for our GrandPrix platform among our reader OEM partners by reducing the complexity and cost of developing an Indy-based reader and by increasing the overall performance of solutions built on Indy. We support our Indy product line with easy-to-use reference designs, SDKs, host libraries and software, sample application code and demo applications. We offer tools for our reader OEM partners to develop on multiple host platforms and environments including WinCE and WinXP. Our development environment allows our reader OEM partners to rapidly develop Indy-based products, and our Indy software natively supports the value-added features of our Monza tag ICs.

Indy reader IC family -80- Indy ICs are used today in a wide range of applications and products including stationary high-performance readers such as Motorola's FX7400, handheld readers typically used on a store floor for real-time inventory such as Motorola's 3090-Z, ThingMagic reader modules commonly used in printers for label encoding and embedded applications such as Coca-Cola's Freestyle beverage dispenser, all pictured below.

Speedway Readers and Speedway-based Subsystems

We introduced the first high-performance four-port stationary UHF Gen2 reader, Speedway Classic, in 2005. A four-port reader supports up to four antennas, each of which can point in a different direction to identify tags over a wide field of view. We introduced Speedway Revolution as an even higher performance replacement for Speedway Classic in 2009. We offer two versions of Speedway Revolution, the four-port R420 and the two-port R220. Both allow power-over-Ethernet, or PoE, operation, which end users value because PoE operation eliminates the need to run electrical power to the reader. Speedway Revolution readers are certified for use in over 40 countries worldwide, including the United States, Canada, Mexico, China, Japan, South Korea and each country in the European Union.

Typically, a Speedway Revolution reader is affixed to a wall or ceiling, such as at a dock door, or embedded in another product, such as a medical cabinet or tool chest. Speedway Revolution does not use Indy, but instead employs a discrete radio IC that we designed to provide higher levels of performance. We sell Speedway Revolution to our ecosystem partners who need the highest performance reader. Some of these ecosystem partners also manufacture their own Indy-based readers; and they include Speedway Revolution in their product line to offer their customers access to the highest performance reader.

We also offer xPortal, a Speedway-based subsystem that functions as an integrated portal reader for entry points such as dock doors. xPortal integrates into a single package, a Speedway Revolution reader and a dual linear phased-array, or DLPA, antenna system. DLPA allows xPortal to electrically sweep its radio beam up and down, thereby providing RFID coverage for an entire doorway in an easy-to-mount, PoE-enabled package.

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Speedway® Revolution R420 reader | Speedway® xPortal integrated portal reader

We support our Speedway product line with SDKs, libraries and software, sample application code and demo applications. Our software development kit, OctaneSDK, allows reader OEM partners to develop applications for Speedway Revolution quickly. We support Monza's value-added features natively in Speedway Revolution and incorporate a set of patented features to build and maintain OEM partner loyalty to our Speedway product line. One example of such a feature is our Autopilot technology, which dynamically tunes the reader settings for best performance on millisecond timescales. Autopilot self-adjusts to the reader environment, optimizes itself based on the number of tags present in each reader antenna's field of view and reduces RF transmissions when no tags are present.

Reader Antennas

We sell a variety of special purpose antennas. Some applications require a reader antenna that does not exist on the market. For example, in 2007 we developed a reader antenna that could fit on a pharmaceutical line, focus the transmitted energy to read a single tagged bottle at the time, and read the tag reliably even if the bottle contained a liquid. No UHF reader antennas could accomplish all three objectives. For this and other applications, we invented near-field UHF reader antennas that inductively couple to a UHF Gen2 tag. Our invention of near-field UHF spawned a product family that today includes several antennas, each optimized for a challenging application. For example, we designed the Guardwall antenna solution shown below to read each bottle in a case of 48 pharmaceutical bottles on a conveyor belt. The lobes show regions where the power is sufficient to read the tags. We provide specialized antennas like Guardwall as part of our GrandPrix platform along with custom antenna design services when a suitable antenna does not exist.

Software

UHF Gen2 systems use software on the reader, in host systems or devices that support the reader and in enterprise data systems that analyze tag read information. We offer two software packages today that focus on tag-specific functions and run either on the reader or on the host that supports the reader. The first software package determines a tag's direction-of-travel. The second software package is our Source Tagging Platform, or STP, which performs EPC and proprietary number management and tag encoding. STP, when used with Monza tag ICs, enables tag encoding at rates of 1,500 tags per minute, allowing in-line encoding on high-speed apparel or pharmaceutical manufacturing lines without slowing down the line.

NRE Developments

To encourage the widespread adoption of GrandPrix and to extend the reach and capabilities of our product portfolio we sometimes perform NRE-funded product, tool or software developments. We typically engage in NRE developments for our ecosystem partners, but on certain occasions we also perform them for end users if the development will generate significant revenue or significantly expand our product portfolio. We also offer a service called FastTrack by which an ecosystem partner can engage us for a small paid development like designing a Monza or Speedway antenna for a specific application.

These NRE-based developments allow us to expand our know-how and other intellectual property in ways that often have broad applicability across end markets. Although we may grant an ecosystem partner or end user time- and application-limited exclusivity with respect to the technology we develop, we retain ownership of the intellectual property developed in connection with such engagements.

Our NRE developments typically require a significant customization and expertise that system integration companies may not be able to provide. These implementation processes typically are lengthy and can require us to incur design and development expenditures, although customers typically fund such efforts. After securing a design win or initiating a pilot program, the typical time from early engagement by our sales force to actual product introduction runs from three months to over a year. Given that redesign and implementation of UHF RFID systems can be time consuming and expensive, once our products are deployed by strategic end users, our experience has been that they prefer to continue employing our solution for the life of the system, which can be two to five years or more, rather than switch to a competitor's offering.

Manufacturing

Monza Tag ICs

TSMC is our sole source for fabricating Monza wafers at facilities in Taiwan, Shanghai, China and Camas, Washington. We work with TSMC solely on a purchase-order basis and do not have a long-term agreement with them for wafer fabrication. We test the wafers either at our office in Seattle, Washington or at a subcontractor in Thailand. We rely on multiple contractors to post-process the wafers into Monza ICs. With limited exceptions, all of our contractors for Monza ICs work on a purchase-order basis.

Indy Reader ICs

TowerJazz fabricates wafers for our Indy ICs in Newport Beach, California. A subcontractor assembles and packages our Indy ICs and another subcontractor performs packaged-part testing. TowerJazz and all Indy subcontractors work on a purchase-order basis.

Speedway Readers

Plexus manufactures our Speedway readers in Penang, Malaysia. Our agreement with Plexus is non-exclusive and renews automatically each year, subject to each party's right to terminate upon 180 days notice. A subcontractor assembles and tests the Speedway printed circuit boards for us and another subcontractor manufactures our reader antennas and performs box-build and test for us. Plexus and both subcontractors work on a purchase-order basis.

Standards

To encourage widespread market adoption of UHF RFID technology, we have participated in the development of industry standards and we have designed our solutions to comply with these standards. Most significantly, over the past nine years we, our customers, our partners and our competitors have collaborated to develop UHF RFID standards in both GS1 EPCglobal and ISO. During this time GS1 EPCglobal and ISO have worked together

collaboratively. When GS1 EPCglobal developed UHF Gen2, ISO approved the protocol for international standardization as ISO 18000-6C. Members of the World Trade Organization are required to adopt international standards, which includes ISO 18000-6C.

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Like most others in the UHF RFID industry, we have focused our efforts on GS1 EPCglobal because (1) GS1 EPCglobal standards are based on end user requirements, (2) GS1 EPCglobal enforces a predominantly royalty-free intellectual property policy and (3) GS1 EPCglobal's standards development process tends to be faster than the corresponding process in ISO. We have sought and maintained leadership positions in GS1 EPCglobal during the last nine years, including the role of project editor for UHF Gen2.

GS1 EPCglobal is currently developing an enhanced version of UHF Gen2, again based on end-user requirements, which we anticipate will be known as "UHF Gen2 Version 2" or "Gen2 V2." The end-user requirements mandate that Gen2 V2 be backward compatible with the original UHF Gen2. UHF Gen2 V2 will expand on UHF Gen2's focus on pallet and case tagging by adding features for item-level tagging. The new features anticipated for Gen2 V2 include security, loss prevention, file management, authentication and tag untraceability. We expect that ISO will adopt and standardize Gen2 V2 as the next generation of 18000-6C (which ISO has indicated they will rename to 18000-63).

We have also participated in GS1 EPCglobal's development of a number of other standards, such as the tag data standards, or TDS, and the low-level reader protocol, or LLRP. Likewise, we have participated in the development of a number of ISO standards which do not have a correlate within GS1 EPCglobal. Finally, we have participated in other standards activities and industry organizations such as the Voluntary Interindustry Commerce Solutions Association, or VICS.

In the course of participating in the development of GS1 EPCglobal and ISO RFID specifications including UHF Gen2, Gen2 V2, TDS, LLRP and others, we have agreed to license certain patents as described in greater detail in the section captioned "–Intellectual Property and Proprietary Rights."

Government Regulation

Government regulations regarding radio devices operating in the UHF band vary worldwide and require that our Speedway readers and subsystems be certified in each jurisdiction where they will operate. For example, U.S. radio regulations fall under the oversight of the Federal Communications Commission. Speedway Revolution is certified for operation pursuant to FCC rules, which allow unlicensed use in the U.S. and its territories. Currently, Speedway Revolution readers are certified for use in over 40 countries worldwide, including the United States, Canada, Mexico, China, Japan, South Korea and each country in the European Union. We monitor evolving RF spectrum regulations in those countries and we seek certification in new countries that we believe present compelling market opportunities. We also monitor worldwide regulatory developments in RFID privacy, health and safety.

Intellectual Property and Proprietary Rights

We seek to protect our proprietary technologies by applying for patents, retaining trade secrets and defending, enforcing and using our intellectual property rights where appropriate. As of April 15, 2011, our intellectual property portfolio included 90 issued and allowed U.S. patents and 77 pending U.S. patent applications. To protect confidential technical information that is not subject to patent protection, we rely on trade secret law and enter into confidentiality agreements with our employees, customers, suppliers and partners.

We have not sought patent protection in countries outside of the United States. Because most RFID products are used or imported into the United States, we determined that the costs associated with pursuing foreign patents outweighed the potential benefits. However, by not seeking patent protection outside the United States for our intellectual property, our ability to assert our intellectual property rights outside the United States may be limited.

We have occasionally engaged in licensing and other activities aimed at generating income and other benefits from our intellectual property assets. In June 2008, we sold our nonvolatile memory, or NVM, intellectual property business line for approximately $5.2 million in cash. The following month we acquired Intel Corporation's UHF RFID reader IC business. The transaction with Intel included a perpetual, royalty-free license from Intel to us for intellectual property incorporated in the Indy reader ICs. We currently continue Intel's practice of licensing the source code necessary to operate the Indy reader ICs to our Indy customers. Under the -84- license, the source code and any modifications made by our customer to the source code may be used only with Indy. We obtain a grant back to any source-code modifications made by our Indy customers and either a license to their intellectual property in the source code or a covenant not to sue us on the source code. We also enable interoperability between our products and third-party products by licensing certain interfaces to developers in our OctaneSDK.

While our patents and trade secrets constitute valuable assets, we do not view any one of them as being material to our operations as a whole. Instead, we believe that the combination of our patents and trade secrets creates an advantage for our business.

In addition to developing and protecting our own patents and trade secrets, we have entered into licensing, broad-scope cross licensing and other agreements authorizing us to use patents and other intellectual property owned by third parties or to operate within the scope of patents owned by third parties. For example, in the course of participating in the development of GS1 EPCglobal UHF RFID specifications including UHF Gen2, UHF Gen2 V2, TDS, LLRP and others, we have agreed to license those of our patents that are necessarily infringed by the practice of these specifications on a royalty-free basis to other GS1 EPCglobal members, subject to reciprocal royalty-free rights from those other members. Currently, approximately eight of our patents and pending applications are necessary for the practice of the UHF Gen2 specification. In addition, in the course of participating in ISO, we have agreed to grant to all users worldwide a license to those of our patents that are necessarily infringed by the practice of a variety of RFID standards, including at frequencies other than UHF, on reasonable and nondiscriminatory terms, again subject to reciprocity.

We own a number of trademarks and develop names for our new products and secure trademark protection for them, including domain name registration, in relevant jurisdictions.

Research and Development

We have committed, and expect to continue to commit, significant resources to developing new solutions, improving product performance and reliability and reducing costs. We direct our research and development efforts primarily to the development of our Monza tag ICs, Indy reader ICs, Speedway readers and reader subsystems, antennas, application software and NRE-based engineering projects. We currently perform all research and development and almost all of our product development internally. We have assembled a team of highly skilled engineers with expertise in UHF RFID. As of March 31, 2011, we had approximately 66 employees in research and development, of which 10 hold a Ph.D. degree and 25 hold a masters degree. Our research and development expense was $12.3 million, $9.5 million and $10.7 million in 2008, 2009 and 2010, respectively. In addition, a substantial portion of our development, service and licensing revenue represents customer-sponsored research activities, which accrue to our benefit in the form of development of new products and techniques.

We regularly review our business portfolio and our related new product and technology development opportunities and reallocate our research and our development resources accordingly. For products targeting established markets, we evaluate our research and development expenditures based on business need and risk assessments. For break-through technologies and new market opportunities, we look at the size of the potential addressable market and the strategic fit and synergies with the rest of our portfolio. We allocate our research and development to maintain a mix of emerging, growth and mature businesses.

Selling and Marketing

We sell our products through multiple channels worldwide using both a direct sales force and a network of international distributors. We organize our sales personnel according to three geographies: Americas, APAC and EMEA. Impinj personnel in each region are responsible for managing customer relationships, design-ins and product promotion. We maintain sales offices in Seattle, Washington, Shanghai, China, Bentonville, Arkansas and Austin, Texas. We employ additional field-based account executives that cover the United States, Taiwan, Malaysia and Europe. We sell to more than 450 inlay manufacturers, reader OEMs, distributors, system integrators, VARs and other technology companies, as well as to end users. Our sales force seeks to develop strong relationships with channel partners that possess domain expertise in specific industries and our technical -85- marketing, product and field-application engineers actively engage potential customers during their design processes to introduce them to the capabilities and advantages of our GrandPrix platform.

Monza tag IC sales to Avery Dennison accounted for 22%, 10% and 12% of our total revenue in 2010, 2009 and 2008, respectively. Monza tag IC sales to UPM accounted for 14% and 11% of total revenue in 2010 and 2008, respectively. Custom development work and reader sales to Walmart accounted for 40% and 50% of our total revenue in 2009 and 2008, respectively.

We generate a substantial majority of our revenue from the sale of Monza tag ICs, Indy reader ICs and Speedway readers. Each of these product families has a distinct distribution channel.

Monza Tag ICs

We sell approximately 95% of Monza tag ICs directly to inlay manufacturers and sell the remainder through distributors to smaller inlay manufacturers. We sell Monza primarily as finished wafers and in smaller volumes as packaged Monza ICs.

Indy Reader ICs

We sell approximately 78% of Indy reader ICs through distributors to reader OEM and sell the remainder directly to reader OEMs. These OEMs, in turn, supply readers to systems integrators or end users.

Speedway Readers

We sell approximately 62% of Speedway readers through a two-tier distribution channel in which we sell readers to geographically-focused distributors that in turn sell to VARs and system integrators. We sell the remainder to premier partners and, rarely, to an end user directly. We strive to manage our channel relationships so that a prospective customer will find an appropriate supply source.

Competition

The market for our solutions is highly competitive, and we believe that competition will increase as the UHF Gen2 market grows and as the underlying technology continues to advance. We compete with both development-stage and established companies, some of which may have much longer operating histories, greater name recognition and substantially greater financial, technical and operational resources than us. The following table summarizes our principal competitors and the competitive factors for each of the key product lines in our GrandPrix platform.

Product	Principal Competitors	Competitive Factors
Tag ICs	• Alien Technology Corporation • NXP B.V.	• Performance and reliability • Features and functionality • Ease of inlay manufacture • Customer support and reference designs • Supplier reputation and reliability • Product portfolio • Inlay certification in end-user applications • Price
Reader ICs	• austriamicrosystems AG • Phychips Inc.	• Performance and reliability • Features and functionality • Ease of use • Customer support, development tools, APIs and reference designs

Product	Principal Competitors	Competitive Factors
		• Supplier reputation and reliability • Product portfolio • OEM product certification in end-user applications • Price
Readers	• Alien Technology Corporation • FEIG ELECTRONIC GmbH • Intermec Technologies Corporation • Motorola Solutions, Inc.	
	• Sirit Inc., a unit of Federal Signal Corporation • ThingMagic, a division of Trimble Navigation Limited	• Performance and reliability • Features and functionality • Ease of use • Customer support, development tools, APIs and reference designs • Supplier reputation and reliability • Product portfolio • Certification in end-user applications • Price

We believe that GrandPrix is the only UHF Gen2 platform in the industry. Our competitors provide certain components of a complete RFID system, but we believe we are the only vendor that provides tag ICs, reader ICs and readers. Our platform gives us numerous competitive advantages. We believe systems that use GrandPrix as an integrated whole are easier to deploy, and they outperform "mix and match" implementations using competing products. We have a competitive cost position but choose not to be the price leader because we believe that our products and our platform offer superior performance and reliability than the competition.

While we believe that we compete favorably based on the factors described above, many of our competitors have greater financial, business development and marketing resources than we have. Our future competitiveness will depend upon our ability to design, develop and market compelling GrandPrix-based solutions. In addition, our competitive position will depend on our ability to continue to attract and retain talent while protecting our intellectual property. For additional information, see the section of this prospectus captioned "Risk Factors—The market in which we operate is highly competitive, and if we fail to compete successfully, our business and results of operations would be significantly harmed."

Employees

As of March 31, 2011, we had 142 employees, 14 of whom hold Ph.D. degrees and 66 of whom were engaged in full time research and development activities. None of our employees is represented by a labor union and we consider our employee relations to be good.

Facilities

Our principal executive office is located in Seattle, Washington. The office has 37,716 square feet and the office lease expires in August 2016, subject to our option to extend for either three or five year additional years. The annual lease payments for this office are approximately $476,000. We also lease sales offices in Shanghai, China, Bentonville, Arkansas and Austin, Texas, and have satellite engineering offices in Rancho Cordova, California and Newport Beach, California. We believe that the facilities we currently lease are sufficient for our current and anticipated future needs.

Legal Proceedings

As of the date of this prospectus, we are not a party to any material legal proceedings with respect to us or any of our material properties. In the normal course of business, we may from time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on our financial position, results of operations or cash flows.

Management

MANAGEMENT

Executive Officers and Directors

The following table sets forth the names, ages and positions of our executive officers and directors as of April 21, 2011:

Name	Age	Position
William T. Colleran, Ph.D.	49	Director, President and Chief Executive Officer
Evan Fein	39	Senior Vice President and Chief Financial Officer
Chris Diorio, Ph.D.	49	Director, Chairman and Chief Technology Officer
Steve Voit	52	Executive Vice President Sales & Marketing
John Quist.	49	Senior Vice President Operations
Tom A. Alberg (1)(3)	71	Director
Stephen D. Arnold, Ph.D. (2)(3)	60	Director
Clinton Bybee (1)(2)(3)	48	Director
Gregory Sessler (1)	58	Director
Albert Yu, Ph.D. (2)	70	Director

(1)	Member of the Audit Committee
(2)	Member of the Compensation Committee
(3)	Member of the Nominating and Governance Committee

Executive Officers

William T. Colleran, Ph.D., has served as our chief executive officer, president and a member of our board of directors since February 2001. Prior to joining us, from July 2000 to February 2001, Dr. Colleran served as director of business development for Broadcom Corporation, a fabless semiconductor company. From February 1999 to July 2000 Dr. Colleran served as chief executive officer for Innovent Systems, Inc., a bluetooth fabless semiconductor company, which he led from the company's inception through sale to Broadcom Corporation in July 2000. From August 1996 to February 1999, Dr. Colleran worked for Merrill Lynch's Technology Investment Banking Group. Dr. Colleran received a Bachelor of Science degree from the University of Notre Dame, a Master of Science degree from University of Southern California, and a Doctor of Philosophy degree from University of California, Los Angeles, all in electrical engineering, and a Juris Doctor degree from Harvard Law School. We believe Dr. Colleran possesses specific attributes that qualify him to serve as a member of our board of directors, including the perspective and experience he brings as our chief executive officer and president, which brings operational expertise to our board of directors.

Evan Fein has served as our senior vice president and chief financial officer since November 2010 and previously served as our senior vice president finance and administration from June 2009 to November 2010, as our vice president finance and administration from February 2004 to June 2009 and as our director of finance from October 2000 to February 2004. Prior to joining us, Mr. Fein worked at T-Mobile, a wireless telecommunications provider (formerly VoiceStream Wireless) managing the company's financial planning and corporate development activities. Mr. Fein received a Bachelor of Science degree in mathematics from the University of Washington and a Master of Business Administration degree from the University of Washington.

Chris Diorio, Ph.D., is one of our co-founders and has served as chairman of our board of directors since April 2000, chief technology officer since November 2006, previously served as our vice president of engineering from June 2004 to November 2006 and as a consultant to us from April 2000 to June 2004. He also serves as an associate professor of computer science and engineering at the University of Washington, as a -88- co-chair of the GS1 EPCglobal Hardware Action Group and as project editor for the UHF Gen2 specification. Dr. Diorio received a Bachelor of Arts degree in physics from Occidental College and Master of Science degree and a Doctor of Philosophy degree in electrical engineering from the California Institute of Technology. We believe Dr. Diorio possesses specific attributes that qualify him to serve as a member of our board of directors, including the perspective and experience he brings as our chief technology officer and one of our founders and his leadership role in GS1 EPCglobal, which brings historic knowledge, operational expertise and continuity to our board of directors.

Steve Voit has served as our executive vice president sales and marketing since September 2008 and previously as a strategic marketing consultant for us from November 2007 to September 2008. Prior to joining us, from November 2002 to September 2007, Mr. Voit served as vice president of business and channel development at General Dynamics Itronix, a computer hardware company. From June 2001 to August 2002, Mr. Voit served as vice president of Sales at NetMotion Wireless, a wireless software company. Mr. Voit received a Bachelor of Science degree in mechanical engineering from the University of Colorado and a Master of Business Administration degree from Northwestern University.

John Quist has served as our senior vice president operations since March 2006. Prior to joining us in March 2006, Mr. Quist worked at Cypress Semiconductor, a semiconductor company, from May 1988 to March 2006, most recently as director of manufacturing. Mr. Quist received a Bachelor of Science degree in industrial technology from San Jose State University.

Board of Directors

Tom A. Alberg has served as a member of our board of directors since September 2000. Mr. Alberg has been a managing director of Madrona Venture Group, LLC, a venture capital firm, since September 1999, and a principal in Madrona Investment Group, LLC, a private investment firm, since January 1996. From June 1996 to the present, Mr. Alberg has been a director of Amazon.com, Inc., and from February 1998 to August 2006, he was a director of Advanced Digital Information Corporation. Mr. Alberg received a Bachelor of Arts degree in international affairs from Harvard College and a Juris Doctor degree from Columbia Law School. We believe that Mr. Alberg possesses specific attributes that qualify him to serve as a member of our board of directors, including his experience as a venture capitalist investing in technology companies, experience with emerging technologies, experience as a director of public companies, as well as his skills relating to financial statement and accounting matters.

Stephen D. Arnold, Ph.D., has served as member of our board of directors since May 2002. He is a co-founder and venture partner of Polaris Venture Partners, a venture capital firm established in May 1995. From August 2008 to the present, Dr. Arnold has been a director of Rainmaker Entertainment Inc. Prior to helping start Polaris, Dr. Arnold served as a special advisor to Burr, Egan, Deleage & Co. from September 1994 to March 1995. From September 1993 to September 1994, he served as vice president of Broadband Media Applications at Microsoft Corporation and from August 1991 to September 1993, he served as president and chief executive officer of Continuum Productions (now Corbis). Prior to Continuum, Dr. Arnold held several management and executive positions at Lucasfilm Ltd. from January 1984 to July 1991, including serving as vice president and general manager of LucasArts Games and Learning divisions and as vice president of the New Media Group. He is co-founder and vice chairman of the board of directors of the Ltd from January 1984 to July 1991. He continues to serve as vice chairman of the board of directors of the George Lucas Educational Foundation. Dr. Arnold received a Bachelor of Science degree in psychology from Macalester College, a Master of Arts degree in comparative psychology and a Doctor of Philosophy degree in developmental psychology from the California Institute of Integral Studies in San Francisco. We believe that Dr. Arnold possesses specific attributes that qualify him to serve as a member of our board of directors, including his experience with a wide range of technology companies and the venture capital industry.

Clinton Bybee has served as member of our board of directors since January 2008. He is a managing director of ARCH Venture Partners, a venture capital firm, which he joined as a co-founder in June 1994. Previously, -89- Mr. Bybee worked with ARCH Development Corporation, managed a venture investment fund for the State of Illinois and was a production engineer with Amoco Corporation. Mr. Bybee received a Bachelor of Science degree in petroleum engineering from Texas A&M University and a Master of Business Administration degree from the University of Chicago. We believe that Mr. Bybee possesses specific attributes that qualify him to serve as a member of our board of directors, including his experience with a wide range of technology companies and the venture capital industry.

Gregory Sessler has served as member of our board of directors since April 2011 and currently serves as chairman of our audit committee. Mr. Sessler has served as the chief operating officer since December 2008 and has served as the executive vice president and chief financial officer since 2002 of Spiration, Inc., which became a wholly-owned subsidiary of Olympus Corporation of the Americas in July 2010. Prior to joining Spiration, Mr. Sessler served as senior vice president and chief financial officer of Rosetta Inpharmatics from March 2000 until its acquisition by Merck & Co., Inc. in July 2001. From June 2008 to the present, Mr. Sessler has been a director and chairman of the audit committee of Marina Biotech, Inc. He also serves on the executive committee and is a past chairman of the board of directors of the Washington Biotechnology and Biomedical Association. Mr. Sessler received a Bachelor of Science degree in accounting from Syracuse University and a Master of Business Administration degree from the Stanford Graduate School of Business. We believe that Mr. Sessler possesses specific attributes that qualify him to serve as a member of our board of directors, including his skills relating to financial statement and accounting matters and experience as a director and audit committee chairman of a public company.

Albert Yu, Ph.D., has served as member of our board of directors since December 2005. He is chairman of OneAngstrom LLC and has been active in investing and mentoring high technology companies. Dr. Yu retired from Intel Corporation in 2002, after almost 30 years with the company. He had served as senior vice president, member of the Corporate Management Committee and general manager of Intel's microprocessors, chipsets and software business for over 16 years. Prior to Intel, he was with Fairchild R&D Lab, where he conducted research and development of solid-state devices and circuits. From August 2005 to the present, Dr. Yu has been a director of PDF Solutions, Inc., and from February 2004 to the present, he has been a director of Preferred Bank. Dr. Yu received a Bachelor of Science degree from the California Institute of Technology, a Master of Science degree and Doctor of Philosophy degree from Stanford University, all in electrical engineering. We believe that Dr. Yu possesses specific attributes that qualify him to serve as a member of our board of directors, including his extensive knowledge and experience of the platform and semiconductor industry and service as a director and advisory board member for many companies and venture capital firms.

Board Composition and Risk Oversight

Our board of directors is currently composed of seven members. Five of our directors are independent within the meaning of the independent director guidelines of . Drs. Colleran, Arnold and Diorio, and Messrs. Alberg, Bybee and Sessler were initially elected to our board of directors pursuant to a voting agreement that will terminate automatically by its terms upon the completion of this offering. Our certificate of incorporation and bylaws to be in effect upon the completion of this offering provide that the number of our directors shall be at least one and will be fixed from time to time by resolution of our board of directors. There are no family relationships among any of our directors or executive officers.

In 2010, our board of directors met 11 times.

Immediately prior to this offering, our board of directors will be divided into three classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years 2012 for the Class I directors, 2013 for the Class II directors and 2014 for the Class III directors.

- Our Class I directors will be Steve Arnold, Chris Diorio and Gregory Sessler.

- Our Class II directors will be Clinton Bybee and Albert Yu.
- Our Class III directors will be Tom Alberg and William Colleran.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control. See the section of this prospectus captioned "Description of Capital Stock—Anti-Takeover Effects of Delaware and Washington Law and Our Certificate of Incorporation and Bylaws" for a discussion of other anti-takeover provisions found in our certificate of incorporation.

Our board of directors has an active role, as a whole and also at the committee level, in overseeing the management of our risks. The board of directors is responsible for general oversight of risks and regular review of information regarding our risks, including credit risks, liquidity risks and operational risks. Our compensation committee is responsible for overseeing the management of risks relating to our executive compensation plans and arrangements. Our audit committee is responsible for overseeing the management of our risks relating to accounting matters and financial reporting. Our nominating and corporate governance committee is responsible for overseeing the management of our risks associated with the independence of our board of directors and potential conflicts of interest. While each committee is responsible for evaluating certain risks and overseeing the management of such risks, our entire board of directors is regularly informed through discussions from committee members about such risks. Our board of directors believes its administration of its risk oversight function has not affected the board of directors' leadership structure.

Director Independence

Upon the completion of this offering, our common stock will be listed on . Under the rules of , independent directors must comprise a majority of a listed company's board of directors within a specified period of the completion of this offering. In addition, the rules of require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and governance committees be independent. Audit committee

members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended. Under the rules of , a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered to be independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

In April 2011, our board of directors undertook a review of its composition, the composition of its committees and the independence of our directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that none of Messrs. Alberg, Bybee and Sessler and Drs. Arnold and Yu, representing five of our seven directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the rules of . Our board of directors also determined that Messrs. Alberg, Bybee and Sessler, who comprise our audit committee, Drs. Arnold and Yu and Mr. Bybee who comprise our compensation committee, and Messrs. Alberg and Bybee and Dr. Arnold who comprise our nominating and governance committee, satisfy the independence standards for those committees established by applicable SEC rules and the rules of .

In making this determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our board of directors has an audit committee, a compensation committee and a nominating and governance committee, each of which has the composition and the responsibilities described below.

Audit Committee

The members of our audit committee are Messrs. Alberg, Bybee and Sessler, each of whom is a non-employee member of our board of directors. Our audit committee chairman, Mr. Sessler, is our audit committee financial expert, as that term is defined under the SEC rules implementing Section 407 of the Sarbanes-Oxley Act of 2002, and possesses financial sophistication, as defined under the rules of . Our audit committee oversees our corporate accounting and financial reporting process and assists our board of directors in monitoring our financial systems. Our audit committee will also:

- approve the hiring, discharging and compensation of our independent auditors;
- oversee the work of our independent auditors;
- approve engagements of the independent auditors to render any audit or permissible non-audit services;
- review the qualifications, independence and performance of the independent auditors;
- review our financial statements and review our critical accounting policies and estimates;
- review the adequacy and effectiveness of our internal controls; and
- review and discuss with management and the independent auditors the results of our annual audit, our quarterly financial statements and our publicly filed reports.

In 2010, our audit committee met once.

Compensation Committee

The members of our compensation committee are Drs. Arnold and Yu and Mr. Bybee. Dr. Arnold is the chairman of our compensation committee. Our compensation committee oversees our compensation policies, plans and benefits programs. The compensation committee will also:

- review and recommend policies relating to compensation and benefits of our officers and employees;
- review and approve corporate goals and objectives relevant to compensation of our chief executive officer and other senior officers;
- evaluate the performance of our officers in light of established goals and objectives;
- recommend compensation of our officers based on its evaluations; and

- administer the issuance of stock options and other awards under our stock plans.

In 2010, our compensation committee met once.

Nominating and Governance Committee

The members of our nominating and governance committee are Messrs. Alberg and Bybee and Dr. Arnold. Mr. Alberg is the chairman of our nominating and governance committee. Our nominating and governance committee oversees and assists our board of directors in reviewing and recommending nominees for election as directors. The nominating and governance committee will also:

- evaluate and make recommendations regarding the organization and governance of the board of directors and its committees;
- assess the performance of members of the board of directors and make recommendations regarding committee and chair assignments;
- recommend desired qualifications for board of directors membership and conduct searches for potential members of the board of directors; and
- review and make recommendations with regard to our corporate governance guidelines.

Our nominating and governance committee was formed in April 2011.

Our board of directors may from time to time establish other committees.

Director Compensation

Compensation paid or accrued for services rendered to us by Dr. Colleran in his role as chief executive officer and by Dr. Diorio in his role as chief technology officer is included in our disclosures related to executive compensation in the section of this prospectus captioned “Executive Compensation.”

Dr. Yu has been granted options for his service as an outside director. On February 24, 2010, Dr. Yu was granted an option to purchase 25,000 shares of common stock at an exercise price of $0.05 per share. On January 26, 2011, Dr. Yu was granted an option to purchase 25,000 shares at an exercise price of $0.18. Each option grant was fully vested upon grant. Dr. Yu may exercise the unvested portion of the shares subject to the option by executing a restricted stock purchase agreement, which gives us the option to repurchase the exercised shares within 30 days of the time Dr. Yu ceases to provide services to us for any reason. Following the completion of this offering, such repurchase option shall cease.

In April 2011, Mr. Sessler was granted an option to purchase 200,000 shares of our common stock. The option vests quarterly over three years.

We have a practice of reimbursing directors for travel, lodging and other reasonable expenses incurred in connection with their attendance at board or committee meetings.

The following table sets forth information concerning compensation paid or accrued for services rendered to us by members of our board of directors for the year ended December 31, 2010. The table excludes Drs. Colleran and Diorio who are our chief executive officer and chief technology officer, respectively, and who did not receive any compensation from us in each of his role as a director in the year ended December 31, 2010.

Director Compensation

Name	Option Awards ($)[1]	Total ($)
Tom Alberg	–	–
Stephen Arnold	–	–
Clinton Bybee	–	–
Albert Yu	542	542

(1) Represents the aggregate expense recognized for financial statement reporting purposes for 2010, calculated in accordance with FASB ASC Topic 718 without regard to estimated forfeitures. See Note 11 to our financial statements included elsewhere in this prospectus for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options.

The compensation committee has retained Compensia, Inc., or Compensia, a compensation advisory firm, to provide recommendations on director compensation following this offering based on an analysis of market data compiled from certain public technology companies. Based on the recommendation of Compensia, our compensation committee intends to adopt an outside director compensation policy that will become applicable to all of our non-employee directors effective upon the completion of this offering.

For further information regarding the equity compensation of our non-employee directors, see the section titled “Executive Compensation—Employee Benefit Plans—2011 Equity Incentive Plan.”

Code of Business Conduct and Ethics

We intend to adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions prior to the completion of this offering. Following this offering, a current copy of the code will be posted on the investor section of our website, www.impinj.com.

Compensation Committee Interlocks and Insider Participation

The members of our compensation committee are Drs. Arnold and Yu and Mr. Bybee. None of the members of our compensation committee is an officer or employee of us. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee (or other board committee performing equivalent functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Limitation of Liability and Indemnification

Our certificate of incorporation and bylaws to be in effect upon the completion of this offering provide the indemnification of our directors and officers to the fullest extent permitted under the Delaware General Corporation Law. In addition, our certificate of incorporation to be in effect upon the completion of this offering provides that our directors shall not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director and that if the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

As permitted by Delaware General Corporation Law, we have entered into separate indemnification agreements with each of our directors and certain of our officers that require us, among other things, to indemnify them against certain liabilities which may arise by reason of their status as directors, officers or certain other employees. We expect to obtain and maintain insurance policies under which our directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities that might be imposed as a result of, actions, suits or proceedings to which they are parties by reason of being or having been directors or officers. The coverage provided by these policies may apply whether or not we would have the power to indemnify such person against such liability under the provisions of the Delaware General Corporation Law.

We believe that these provisions and agreements are necessary to attract and retain qualified persons as our officers and directors. At present, there is no pending litigation or proceeding involving our directors or officers for which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Executive Compensation

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

The following is a discussion and analysis of the compensation arrangements of our named executive officers who are listed in the 2010 Summary Compensation Table, which provides detailed compensation information related to these individuals. This discussion contains forward-looking statements that are based on our current considerations, expectations and determination regarding future compensation programs. The actual amount and form of compensation and the compensation programs that we adopt may differ materially from current or planned programs as summarized in the discussion.

General Compensation Philosophy

Our general executive compensation philosophy is to provide programs that attract, motivate, reward and retain highly qualified executives and to motivate them to pursue our corporate objectives while encouraging the creation of long-term value for our shareholders. We evaluate and reward our executive officers through compensation intended to motivate them to identify and capitalize on opportunities to grow our business and maximize shareholder value over time. We strive to provide an executive compensation program that is market competitive, rewards achievement of our business objectives and is designed to provide a foundation of fixed compensation (base salary) and a significant portion of performance-based compensation (short-term and long-term incentive opportunities) that align the interests of executives with those of our shareholders.

Compensation Decision Process

Our historic executive compensation program reflects our operations as a private startup company as we have relied largely upon our board of directors, our compensation committee and the chief executive officer's experience in determining the appropriate compensation levels with respect to our executives. Until recently, in an effort to control expenditures and allocate our limited resources effectively, we have not engaged compensation consultants or established formal benchmark processes against any set of peer group companies. From time to time, we have consulted as reference points compensation surveys showing the compensation practices of similar companies, measured by location, number of employees, industry, and level of funding.

Our compensation decisions have been made based on individual performance, on internal equity and the compensation each executive had negotiated at the time he joined our company.

Since mid-2003, our executive compensation program has been administered by our board of directors and our compensation committee, with substantial input from our chief executive officer. For the past several years, our chief executive officer periodically reviewed the compensation of our executive management, except for himself and the chief technology officer, and made recommendations to the compensation committee for any adjustments to base salary and any grants of equity compensation for each named executive officer. With respect to his compensation and that of the chief technology officer, the chief executive officer made recommendations to the compensation committee and the board of directors. The compensation committee had the final say on named executive officer compensation and had the ability to accept or reject the chief executive officer's recommendations for all named executive officers, including the chief executive officer and chief technology officer. Final decisions with respect to the compensation for the chief executive officer and chief technology officer were made in a meeting of the compensation committee outside the chief executive officer's presence.

In determining compensation for 2010, the compensation committee relied on their general experience in determining each compensation element.

Beginning in October 2010, the compensation committee engaged Compensia, Inc., or Compensia, an independent executive compensation consulting firm from whom the compensation committee obtained relevant compensation data and will continue to do so in the future. Our compensation committee, Compensia, and our -96- management worked together to choose a public company peer group for executive compensation purposes for 2011. These companies were chosen from a group of similar publicly-traded companies, taking into account size, business and growth potential. For 2011, we consulted with Compensia in the establishment of reference points and guidelines with respect to base salary, incentive compensation, and equity compensation. We expect that following our initial public offering, we will benchmark our compensation relative to data from our public company peer group (which may change over time). The compensation committee also intends to review industry survey data prepared by Compensia, including Compensia's executive and equity compensation assessment, and Radford's Global Technology Survey.

Weighting of Elements of Compensation Program

We did not have any pre-determined formula or target for allocating compensation between short-and long-term, fixed and variable or cash and non-cash compensation. As a privately-held company, executive compensation has been heavily weighted towards equity, which has been awarded in the form of stock options. Our board of directors and compensation committee determined that this form of compensation focused our executives on driving achievement of our strategic and financial goals. Our board of directors and compensation committee also believe that making stock options a key component of executive compensation aligned the executive team with the long-term interests of our shareholders. To maintain a competitive compensation program, we have also offered cash compensation in the form of base salaries to reward individual contributions and compensate our employees for their day-to-day responsibilities, and made occasional discretionary bonuses to reward excellence, leadership, and achievement of our shorter-term objectives.

Principal Elements of Executive Compensation

Components of Named Executive Officer Compensation

The compensation program for our named executive officers consists of:

- base salary;
- incentive cash compensation;
- stock options;
- employee benefits and perquisites; and
- change of control and severance arrangements.

We believe these elements provide a compensation package that attracts and retains qualified individuals, links individual performance to our performance, focuses the efforts of our named executive officers on the achievement of both our short-term and long-term objectives and aligns the interests of our named executive officers with those of our shareholders.

As our needs evolve and circumstances require, we intend to continue to evaluate our philosophy and compensation program. Going forward, we expect to review our executive compensation annually.

Base Salaries

We provide a base salary to our named executive officers and other employees to compensate them for services rendered on a day-to-day basis during the year. Base salary typically is used to recognize the experience, skills, knowledge and responsibilities required of each named executive officer, although competitive market conditions also play a role in setting the level of base salary. We do not apply specific formulas to determine changes in base salary. Rather, the base salaries of our named executive officers have been reviewed on an annual basis for the past few years, and adjustments have been made to reflect our economic condition and -97- future expected performance, as well as what our named executive officers could be expected to receive if employed at companies similarly situated to ours and our overall subjective assessment of appropriate salary levels, while being mindful of the need to conserve cash resources.

2010 Base Salaries. In 2009, base salaries for the named executive officers were reduced by 10% to address the effects of the economic recession on our company. The reduction was proposed by our management team and accepted by the board of directors. In late 2009 and in early 2010, these salary reductions were rolled back, and base salaries for the named executive officers were restored. None of the named executive officers received base salary

increases above the levels that were in place immediately before the prior reductions, except for our chief financial officer, who received a base salary increase in connection with his promotion during 2009 and an additional salary increase in connection with his promotion to chief financial officer during 2010. For 2010, base salaries were as follows:

Name	2010 Base Salary ($)	
William Colleran Chief Executive Officer and President	275,018	
Evan Fein Senior Vice President, Chief Financial Officer	207,067	(1)
Chris Diorio Chairman and Chief Technology Officer	275,018	
Steve Voit Executive Vice President Sales and Marketing	227,966	
John Quist Senior Vice President Operations	205,385	

(1) Includes the mid-year increase to Mr. Fein's base salary in connection with his promotion to Chief Financial Officer in August 2010.

Incentive Cash Compensation

Through 2010, we have provided annual cash incentives for our chief executive officer and chief technical officer on a discretionary basis. We have also provided annual cash incentive compensation for our executive vice president, sales and marketing tied to his achievement of revenue targets and completion of personal goals set by our chief executive officer.

For our chief executive officer and chief technical officer, the board of directors approved discretionary bonuses at the end of the fiscal year based on recommendations from the compensation committee. The compensation committee determined the bonus amounts based on its assessment of our performance and each named executive officer's contribution to that performance.

For 2011, the compensation committee and the chief executive officer, with the assistance of Compensia, are developing a more formal bonus program for the named executive officers that will be primarily tied to corporate financial metrics with an adjustment factor for individual performance.

2010 Incentive Cash Compensation. For 2010, the compensation committee determined to pay bonuses in the amount of $50,000, $15,000 and $50,000 to our chief executive officer, chief financial officer and chief technical officer, respectively, based on each named executive officer's overall contributions in growing our business and the performance of our company.

For our executive vice president, sales and marketing, a target bonus percentage of 37.8% of his base salary was established at the beginning of 2010. Our chief executive officer established performance goals that needed to be achieved for our executive vice president, sales and marketing to earn his annual cash incentive. These -98- performance goals consisted of a billings component and an individual performance component, or MBO, which were weighted equally. The billings component was intended to be challenging and to drive performance towards achieving results throughout the year. The individualized MBO component was comprised of the following metrics: (1) sales; (2) sales operations; (3) marketing; (4) business development; and (5) executive leadership and administration. These metrics were believed to motivate our executive vice president, sales and marketing to identify and capitalize on opportunities to grow our business and maximize shareholder value. In early 2011, our chief executive officer reviewed and evaluated our performance against the billings target and our named executive officer's performance against his individualized MBO goals, and determined that our executive vice president, sales and marketing achieved 67.9% of his target bonus for 2011. This percentage was used to pay our executive vice president, sales and marketing a bonus in the amount of $50,958.

Long-Term Equity-Based Incentive Compensation

We believe that strong long-term corporate performance is achieved with a corporate culture that encourages a long-term focus by our named executive officers through the use of equity-based awards, the value of which depends on our stock performance. Our equity-based incentives have historically been granted in the form of stock options. We grant stock options to provide our named executive officers with incentives to help align their interests with the interests of our shareholders and to enable them to participate in the long-term appreciation of our stock value. Additionally, stock options provide an important tool for us to retain our named executive officers, as the options are subject to vesting over an extended period of time subject to continued service with us.

Historically, we have granted stock options on a periodic basis to our named executive officers, and have not had an established set of criteria for granting equity awards. Instead, the board of directors or compensation committee exercised its judgment and discretion, in consultation with our chief executive officer, and considered, among other things, the role and responsibility of the named executive officer, competitive factors, the amount of stock-based equity compensation already held by the named executive officer and the number of options still unvested, to determine its recommendations for stock options. We do not have, nor do we plan to establish, any program, plan or practice to time stock option grants in coordination with releasing material non-public information.

Stock Ownership Guidelines and Insider Trading Policy. As of the date of this prospectus, the board of directors has not adopted stock ownership guidelines with respect to the named executive officers or for the board of directors itself, although it may consider doing so in the future. In connection with this offering, we will establish an insider trading compliance policy that prohibits, among other things, short sales, hedging of stock ownership positions and transactions involving derivative securities relating to our common stock.

Equity Grants. In August 2010, our board of directors approved the grant of stock options to a number of our employees, including the named executive officers listed in the table below. These stock option grants were made to continue to drive performance among our employees (including the executives listed in the table below), to enhance our value, better align their interests with the interests of our shareholders, and address potential retention concerns. In determining the number of shares subject to the stock options, the board of directors considered these named executive officers current equity holdings, their unvested status and individual and our company's performance.

Named Executive Officer	Option Grants (Number of Shares)	Grant Date
Evan Fein	35,000	08/05/10
John Quist	25,000	08/05/10

In February 2011, our board of directors approved the grant of stock options to the named executive officers listed in table below. In making these grants, the board of directors reviewed the market data from Compensia regarding executive compensation in comparable public companies in our industry. These stock option grants were made to continue to drive performance among our executive team to enhance our value, better align the interests of our named executive officers with the interests of our shareholders and address potential retention concerns. In determining the number of shares subject to the stock options, the board of directors considered each named executive officer's current equity holdings, their unvested amounts, each executive's performance and criticality to our company and what it determined would be a sufficient incentive relative to such holdings.

Named Executive Officer	Option Grants (Number of Shares)	Grant Date
William Colleran.	600,000	02/24/11
Evan Fein	550,000	02/24/11
Chris Diorio.	400,000	02/24/11
Steve Voit	100,000	02/24/11
John Quist	150,000	02/24/11

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in the same group insurance and employee benefit plans as our other salaried employees. We provide employee benefits to all eligible employees, including our named executive officers, which the compensation committee believes are reasonable and consistent with our overall compensation objective to better enable us to attract and retain employees. These benefits include 401(k), medical, dental, vision and disability benefits and other plans and programs made available to other eligible employees in the applicable country of residence. We provide special long-term disability coverage for our named executive officers who are eligible for disability coverage until approximately age 65 if they cannot return to their own occupation. At this time, we do not provide any other special plans or programs for our named executive officers. Accordingly, employee benefits and perquisites are reviewed from time to time only to ensure that benefit levels remain competitive for us as a whole, but are not included in the compensation committee's annual determination of a named executive officer's compensation package.

Change of Control and Severance Benefits

Our board of directors and compensation committee consider maintaining a stable and effective management team to be essential in protecting and enhancing the best interests of us and our shareholders. We have established change of control and severance arrangements with our named executive officers to provide assurances of specified severance benefits if their employment is subject to involuntary termination other than for death, disability, or cause or voluntary termination for good reason. We believe that it is imperative to provide such individuals with severance benefits upon certain terminations of employment, which we recognize can be triggered at any time, to (1) secure their continued dedication to their work, notwithstanding the possibility of a termination by us and (2) provide such individuals with an incentive to continue employment with us. Based on the experience and subjective judgment of our board of directors and compensation committee, we believe that the severance benefits are competitive relative to the severance protection provided to similarly situated individuals at companies with which we compete for talent and appropriate given that the benefits are subject to the executive's entry into a release of claims in favor of us.

We also recognize that the possibility of a change of control may exist from time to time, and that this possibility, and the uncertainty and questions it may raise among management, may result in the departure or distraction of management to our and our shareholders' detriment. Accordingly, our board of directors decided to take appropriate steps to encourage the continued attention, dedication and continuity of members of our management to their assigned duties without the distraction that may arise from the possibility or occurrence of a -100- change of control. As a result, we have agreements with each of our named executive officers that provide additional benefits in the event of a change of control. For more detail, see "—Potential Payments Upon Termination or Change of Control."

Tax and Accounting Treatment of Compensation

Deductibility of Executive Compensation

Generally, Section 162(m) of the Internal Revenue Code, or Code, disallows a tax deduction to any publicly-held corporation for any remuneration in excess of $1 million paid in any taxable year to its chief executive officer and to certain other highly compensated officers. Remuneration in excess of $1 million may be deducted if, among other things, it qualifies as "performance-based compensation" within the meaning of the Code.

As we have been a privately-held corporation, we have not previously taken the deductibility limit imposed by Section 162(m) into consideration in setting compensation for our executive officers. Further, under a certain Section 162(m) exception, any compensation paid pursuant to compensation arrangements in existence before the effective date of this public offering will not be subject to the $1,000,000 limitation. In addition, any equity awards we make under our 2011 Equity Incentive Plan will not be subject to this limitation, provided such awards are made prior to the earlier of: (1) the expiration of the plan; (2) a material modification of the plan (as determined under Section 162(m); (3) the issuance of all the employer stock and other compensation allocated under the plan; and (4) the first meeting of shareholders at which directors are elected after the close of the third calendar year following the year in which the public offering occurs. Where reasonably practicable, we will seek to qualify the variable compensation paid to our executive officers for the "performance-based compensation" exemption from the deductibility limit. As such, in approving the amount and form of compensation for our executive officers in the future, we will consider all elements of the cost to us of providing such compensation, including the potential impact of Section 162(m). Our compensation committee may, in its judgment, authorize compensation payments that do not comply with an exemption from the deductibility limit when it believes that such payments are appropriate to attract and retain executive talent.

Taxation of "Parachute" Payments and Deferred Compensation

We have not provided any named executive officer with a "gross-up" or other reimbursement payment for any tax liability that he or she might owe as a result of the application of Sections 280G, 4999 or 409A of the Code during 2010 and we have not agreed and are not otherwise obligated to provide any named executive officer with such a "gross-up" or other reimbursement. Sections 280G and 4999 of the Code provide that executive officers and directors who hold significant equity interests and certain other service providers may be subject to an excise tax if they receive payments or benefits in connection with a change in control that exceeds certain prescribed limits, and that we, or a successor, may forfeit a deduction on the amounts subject to this additional tax. Section 409A also imposes additional significant taxes on the individual in the event that an executive officer, director or other service provider receives "deferred compensation" that does not meet the requirements of Section 409A of the Code.

Accounting Treatment

We follow Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, or ASC Topic 718, formerly known as SFAS 123(R), for our stock-based awards. ASC Topic 718 requires companies to measure the compensation expense for all share-based payment awards made to employees and directors, including stock options and restricted stock awards, based on the grant date "fair value" of these awards. This calculation is performed for accounting purposes and reported in the compensation tables below, even though our executive officers may never realize any value from their awards. ASC Topic 718 also requires companies to recognize the compensation cost of their stock-based compensation awards in their income statements over the period that an executive officer is required to render service in exchange for the option or other award.

We account for equity compensation paid to our employees under the rules of FASB ASC Topic 718, which requires us to estimate and record an expense for each award of equity compensation over the service period of the award. Accounting rules also require us to record cash compensation as an expense at the time the obligation is incurred.

2010 Summary Compensation Table

The following table summarizes the compensation that we paid to or earned by our chief executive officer, chief financial officer and each of our three other most highly compensated executive officers during the year ended December 31, 2010. We refer to these officers in this prospectus as our named executive officers.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)[1]	Non-Equity Incentive PlanCompensation ($)	Total ($)
William Colleran.	2010	275,018	50,000	—	—	325,018
Chief Executive Officer and President						
Evan Fein	2010	207,067	15,000	8,679	—	230,746
Chief Financial Officer and Senior Vice President						
Chris Diorio	2010	275,018	50,000	—	1,450 [2]	326,468
Chairman and Chief Technology Officer						
Steve Voit	2010	227,966	50,958	—	—	278,924
Executive Vice President Sales and Marketing						
John Quist	2010	205,385	—	6,199	—	211,584
Senior Vice President Operations						

(1) The amounts included in the "Option Awards" column represent the aggregate grant date fair value of option awards calculated in accordance with authoritative accounting guidance on stock compensation. The valuation assumptions used in determining such amounts are described in the notes to our consolidated financial statements included elsewhere in this prospectus.

(2) The amount reflects the dollar value of patent awards to Dr. Diorio.

Grants of Plan-Based Awards For the Year Ended December 31, 2010

The following table provides information regarding grants of plan-based awards made during the year ended December 31, 2010, to each of our named executive officers.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards ($)			All Other OptionAwards:Number ofSecuritiesUnderlyingOptions (#)	Exercise or Base Priceof OptionAwards ($/Sh)	Grant Date Fair Valueof Stockand OptionAwards ($)
		Threshold ($)	Target ($)	Maximum ($)			
William Colleran	–	–	–	–	–	–	–
Evan Fein	08/05/2010	–	–	–	35,000	0.09	8,679
Chris Diorio	–	–	–	–	–	–	–
Steve Voit	–	–	–	–	–	–	–
John Quist	08/05/2010	–	–	–	25,000	0.09	6,199

Outstanding Equity Awards at December 31, 2010

The following table shows grants of stock options outstanding at December 31, 2010 to each of our named executive officers.

Name	Number of SecuritiesUnderlyingUnexercisedOptions (#)Exercisable		Number of SecuritiesUnderlyingUnexercisedOptions (#)Unexercisable	Option ExercisePrice ($)	Option ExpirationDate
William Colleran	200,000	(1)	–	0.08	07/16/2012
	200,000	(2)	–	0.10	11/30/2014
	400,000	(3)	–	0.05	09/22/2019
	400,000	(4)	–	0.05	09/22/2019
	1,199,976	(5)	–	0.05	09/22/2019
	1,922,032	(5)	–	0.05	09/22/2019
	23	(6)	–	0.05	10/22/2019
	1,599,977	(6)	–	0.05	10/22/2019
Evan Fein	7,500	(7)	–	0.08	11/15/2011
	42,500	(8)	–	0.08	01/27/2014
	50,000	(9)	–	0.08	03/30/2014
	75,000	(10)	–	0.10	03/29/2015
	25,000	(11)	–	0.20	05/09/2016
	25,000	(12)	–	0.22	12/06/2016
	50,000	(13)	–	0.05	09/22/2019
	75,000	(14)	–	0.05	09/22/2019
	150,000	(15)	–	0.05	10/22/2019
	35,000	(16)	–	0.09	08/04/2020
Chris Diorio	800,000	(15)	–	0.05	10/22/2019
Steve Voit	1,476,786	(17)	–	0.05	02/05/2019
	205,407	(18)	–	0.05	09/22/2019
John Quist	155,00	(19)	–	0.05	02/05/2019
	50,000	(20)	–	0.05	09/22/2019
	70,000	(21)	–	0.05	09/22/2019
	225,000	(22)	–	0.05	09/22/2019
	100,000	(15)	–	0.05	10/22/2019
	25,000	(16)	–	0.09	08/04/2020

(1) This option was granted on July 17, 2002. One-twelfth ($1/12^{th}$) of the shares subject to the option vested on March 5, 2005 and each month thereafter on the same day of the month.

(2) This option was granted on December 1, 2004. One-twelfth ($1/12^{th}$) of the shares subject to the option vested on March 5, 2005 and each month thereafter on the same day of the month.

(3) This option was originally granted on December 1, 2004 and was regranted on September 23, 2009 as part of our option exchange. One-fourth ($1/4^{th}$) of the shares subject to the option vested on December 23, 2009, and one-fourth ($1/4^{th}$) of the shares subject to the option shall vest every three months thereafter on the same day of the month.

(4) This option was originally granted on August 15, 2006 and was regranted on September 23, 2009 as part of our option exchange. One-sixth (1/6th) of the shares subject to the option vested on December 23, 2009, and one-sixth (1/6th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(5) This option was originally granted on February 22, 2001 and was regranted on September 23, 2009 as part of our option exchange. One-fourth (1/4th) of the shares subject to the option vested on December 23, 2009, and one-fourth (1/4th) of the shares subject to the option shall vest every three months thereafter on the same day of the month.

(6) This option was granted on October 22, 2009. One forty-eighth (1/48th) of the shares subject to the option vested on February 1, 2009, and one forty-eighth (1/48th) of the shares subject to the option shall vest each month thereafter on the same day of the month.

(7) This option was granted on November 16, 2001. Twenty-five percent (25%) of the shares subject to the option vested on November 16, 2002, and one forty-eighth (1/48th) of the shares subject to the option vested each month thereafter on the same day of the month.

(8) This option was granted on January 28, 2004. Twenty-five percent (25%) of the shares subject to the option vested on October 16, 2004, and one forty-eighth (1/48th) of the shares subject to the Option vested each month thereafter on the same day of the month.

(9) This option was granted on March 31, 2004. Twenty-five percent (25%) of the shares subject to the option vested on March 15, 2005, and one forty-eighth (1/48th) of the shares subject to the option vested each month thereafter on the same day of the month.

(10) This option was granted on March 30, 2005. Twenty-five percent (25%) of the shares subject to the option vested on March 15, 2006, and one forty-eighth (1/48th) of the shares subject to the option vested each month thereafter on the same day of the month.

(11) This option was granted on May 10, 2006. One forty-eighth (1/48th) of the shares subject to the option vested on June 10, 2006, and one forty-eighth (1/48th) of the shares subject to the option vested each month thereafter on the same day of the month.

(12) This option was granted on December 7, 2006. One forty-eighth (1/48th) of the shares subject to the option vested on December 13, 2006, and one forty-eighth (1/48th) of the shares subject to the option vested each month thereafter on the same day of the month.

(13) This option was originally granted on August 18, 2008 and was regranted on September 23, 2009 as part of our option exchange. One-eighteenth (1/18th) of the shares subject to the option vested on December 23, 2009, and one-eighteenth (1/18th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(14) This option was originally granted on April 18, 2007 and was regranted on September 23, 2009 as part of our option exchange. One-fourteenth (1/14th) of the shares subject to the option vested on December 23, 2009, and one-fourteenth (1/14th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(15) This option was granted on October 22, 2009. One forty-eighth (1/48th) of the shares subject to the option vested on November 22, 2009, and one forty-eighth (1/48th) of the shares subject to the option shall vest each month thereafter on the same day of the month.

(16) This option was granted on August 5, 2010. One forty-eighth (1/48th) of the shares subject to the option vested on June 1, 2010, and one forty-eighth (1/48th) of the shares subject to the option shall vest each month thereafter on the same day of the month.

(17) This option was granted on February 6, 2009. Twenty-five percent (25%) of the shares subject to the option vested on September 30, 2009, and one forty-eighth (1/48th) of the shares subject to the option shall vest each month thereafter on the same day of the month.

(18) This option was originally granted on December 4, 2007 and was regranted on September 23, 2009 as part of our option exchange. One-eighth (1/8th) of the shares subject to the option vested on December 23, 2009, and one-eighth (1/8th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(19) This option was granted on February 6, 2009. One forty-eighth (1/48th) of the shares subject to the option vested on February 20, 2009, and one forty-eighth (1/48th) of the shares subject to the option shall vest each month thereafter on the same day of the month.

(20) This option was originally granted on April 18, 2007 and was regranted on September 23, 2009 as part of our option exchange. One-fourteenth (1/14th) of the shares subject to the option vested on December 23, 2009, and one-fourteenth (1/14th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(21) This option was originally granted on August 18, 2008 and was regranted on September 23, 2009 as part of our option exchange. One-eighteenth (1/18th) of the shares subject to the option vested on December 23, 2009, and one-eighteenth (1/18th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

(22) This option was originally granted on May 10, 2006 and was regranted on September 23, 2009 as part of our option exchange. One-eighth (1/8th) of the shares subject to the option vested on December 23, 2009, and one-eighth (1/8th) of the shares subject to the option shall vest each three months thereafter on the same day of the month.

Exchange of Outstanding Stock Options

In September 2009, we offered eligible holders of our stock options, including our executive officers and all our employees, the opportunity to exchange certain outstanding options for new options with an exercise price equal to the fair value of our common stock on September 23, 2009, the date on which this exchange offer ended. Options eligible for exchange included all options with an exercise price greater than $0.05 per share that remained outstanding and unexercised on September 23, 2009. We determined that the fair market value of our common stock on September 23, 2009 was $0.05. The new options issued in this exchange were exercisable for the same number of shares as the old options and were subject to the same terms and conditions, except that the vesting period for the new options was extended by up to 24 months based on the number of shares previously vested in the options. Approximately options to purchase 6,576,165 shares were exchanged, including options to purchase 4,997,415 shares held by our directors and executive officers. We made this exchange offer because many of the outstanding options held by our employees had exercise prices significantly above the fair value of our common stock, and we believed that such options provided little incentive to employees. Our executive officers were entitled to participate in the exchange offer on the same basis as other employees because we intend for options to be an important form of incentive compensation for our executive officers.

Employment Agreements and Offer Letters

William T. Colleran, Ph.D.

We entered into an employment agreement with William T. Colleran, Ph. D., our chief executive officer and president, dated July 19, 2007, as amended December 19, 2008 and February 19, 2009, respectively. This agreement has no specific term and constitutes at-will employment. Dr. Colleran's current annual base salary for 2011 is $320,008, and he is eligible to earn bonus compensation based on the achievement of certain performance objectives established by our board of directors or the compensation committee. Under the terms of this agreement, if Dr. Colleran's employment is terminated other than for cause, death, or disability, or he resigns for good reason, he will be eligible to receive the following benefits, if he timely signs a release of claims and continues to comply with the non-competition and non-solicitation provisions in his employment agreement:

- continued payment of base salary for a period of six months (12 months, if his termination occurs within 12 months following a change of control);
- lump sum payment equal to 50% of annual base salary (but only if his termination occurs within 12 months following a change of control);
- pro-rated portion of annual target performance bonus;
- reimbursement by us for up to six months of COBRA premiums to continue health insurance coverage for him and his eligible dependents;
- accelerated vesting of 25% of the then unvested portion of outstanding equity awards (100%, if his termination occurs within 12 months following a change of control); and
- extension of the exercise period for outstanding vested stock options for up to one year following termination.

Evan Fein

We entered into an employment agreement with Evan Fein, our senior vice president and chief financial officer, dated December 23, 2009. This agreement has no specific term and constitutes at-will employment. Mr. Fein's current annual base salary for 2011 is $220,542. Under the terms of this agreement, if Mr. Fein's employment is terminated other than for cause, death, or disability, or he resigns for good reason, he will be eligible to receive the following benefits, if he timely signs a release of claims and continues to comply with the non-competition and non-solicitation provisions in his employment agreement:

- continued payment of base salary for a period of six months;
- pro-rated portion of annual target performance bonus;
- reimbursement by us for up to six months of COBRA premiums to continue health insurance coverage for him and his eligible dependents;
- accelerated vesting of 50% of the then unvested portion of outstanding equity awards (but only if his termination occurs within six months following a change of control); and
- extension of the exercise period for outstanding vested stock options for up to one year following termination.

Chris Diorio, Ph.D.

We entered into an employment offer letter with Chris Diorio, Ph. D., our co-founder, chairman and chief technology officer, dated March 16, 2007, as amended December 19, 2008 and February 20, 2009. This letter has no specific term and constitutes at-will employment. Dr. Diorio's current annual base salary for 2011 is $275,018, and he is eligible to earn bonus compensation based on the achievement of certain performance objectives established by our board of directors or the compensation committee. Under the terms of this letter, if Dr. Diorio's employment is terminated other than for cause, death, or disability, or he resigns for good reason, he will be eligible to receive the following benefits, if he timely signs a release of claims and continues to comply with the non-competition and non-solicitation provisions in his offer letter:

- continued payment of base salary for a period of six months (12 months, if his termination occurs within 12 months following a change of control);
- lump sum payment equal to 50% of annual base salary (but only if his termination occurs within 12 months following a change of control);
- pro-rated portion of annual target performance bonus;
- reimbursement by us for up to six months of COBRA premiums to continue health insurance coverage for him and his eligible dependents;
- accelerated vesting of 25% of the then unvested portion of outstanding equity awards (100%, if his termination occurs within 12 months following a change of control); and
- extension of the exercise period for outstanding vested stock options for up to one year following termination.

Steve Voit

We entered into an employment offer letter with Steve Voit, our executive vice president sales and marketing, dated September 30, 2008, as amended on December 19, 2008, February 19, 2009, and January 5, 2010 and April 16, 2011. This letter has no specific term and constitutes at-will employment. Mr. Voit's current annual base salary for 2011 is $229,528, and he is eligible to earn bonus compensation of up to $86,762, based on the achievement of certain performance objectives established by our board of directors or the compensation -106- committee. Under the terms of this letter, if Mr. Voit's employment is terminated other than for cause, death, or disability, or he resigns for good reason, he will be eligible to receive the following benefits, if he timely signs a release of claims and continues to comply with the non-competition and non-solicitation provisions in his offer letter:

- continued payment of base salary for a period of six months;
- pro-rated portion of annual target performance bonus; and
- accelerated vesting of 50% of the then unvested portion of outstanding equity awards (but only if his termination occurs within six months following a change of control).

John Quist

We entered into an employment agreement with John Quist, our senior vice president operations, dated March 10, 2006, as amended on March 31, 2011. The agreement has no specific term and constitutes at-will employment. Mr. Quist's current annual base salary for 2011 is $207,480. Mr. Quist initially was entitled to reimbursement for travel, relocation, and temporary housing expenses in connection with his relocation to the Seattle, Washington area. Under the terms of this agreement, if Mr. Quist's employment terminates as a result of a constructive termination, he will be eligible to receive continued payment of base salary for a period of three months, if he timely signs a release of claims. If Mr. Quist's employment is terminated other than for cause, death or permanent disability within one year following a change of control, he will be eligible to receive accelerated vesting of 50% of the then unvested shares subject to the option he received in connection with his hire, if he timely signs a release of claims.

For purposes of the agreements and letters above, the following definitions shall apply:

- "*Cause*": means: (1) the named executive officer's conviction of a felony; (2) the named executive officer's commission of any act of fraud with respect to us; (3) the named executive officer's intentional misconduct that has a materially adverse effect upon our business; (4) the named executive officer's breach of any of the named executive officer's fiduciary obligations as our officer or of any contractual obligation that the named executive officer has to us, in either case where the breach has a materially adverse effect on our business; (5) the named executive officer's willful misconduct or gross negligence in performance of the named executive officer's duties hereunder, including the named executive officer's refusal to comply in any material respect with the legal directives of the board of directors so long as such directives are not inconsistent with the named executive officer's position and duties; or (6) the named executive officer's death or disability. However, prior to any termination of the named executive officer's employment for Cause defined in clauses (3), (4) or (5) above, we shall give written notice to the named executive officer of the actions or omissions deemed to constitute the Cause event, and if it is possible to cure the specified default, the named executive officer shall have a period of not less than 30 days in which to cure the specified default in the named executive officer's performance.
- "*Constructive Termination*" (applies to Mr. Quist): means the named executive officer's resignation within 30 days following the notice and cure period described below, due to a relocation required by us as a result of our relocation of the named executive officer's assigned work site to a location more than 50 miles from the named executive officer's assigned work site immediately prior to such relocation; provided, however, that such relocated work site must also be more than 50 miles from the named executive officer's then current home address; and provided further, however, that no Constructive Termination shall be deemed to occur if we offer the named executive officer the opportunity to work remotely so that his principal work site is at his home or a location within 50 miles of his home following any relocation of his assigned work site. Notwithstanding the foregoing, the named executive officer will not resign for a "constructive termination" without first providing us with written notice of the acts or omissions constituting the grounds for "constructive termination" within 90 days of the initial existence of the grounds for "constructive termination" and a reasonable cure period of not less than 30 days following the day of such notice.

- "*Good Reason*" (applies to Drs. Colleran and Diorio and Mr. Voit): means the named executive officer's resignation that is effective within two years following the occurrence of one or more of the following events without the named executive officer's consent: (1) a material reduction of named executive officer's base salary; (2) the assignment to named executive officer of any duties, or the reduction of the named executive officer's duties, either of which results in a material diminution in the named executive officer's authority, duties or responsibilities with us in effect immediately prior to such assignment or reduction, or the removal of the named executive officer from such position and responsibilities, unless the named executive officer is provided with comparable authority, duties or responsibilities; provided that, neither a mere change in title alone nor reassignment following a change of control to a position that is substantially similar to the position held prior to the change of control in terms of job duties, responsibilities and requirements shall constitute a material reduction in job responsibilities; or (3) a material change in the geographic location at which the named executive officer must perform services (for purposes of this definition, the relocation of the named executive officer to a facility or a location less than 50 miles from the named executive officer's then-present location shall not be considered a material change in geographic location). The named executive officer will not resign for "Good Reason" without first providing us with written notice of the acts or omissions constituting the grounds for "Good Reason" within 90 days of the initial existence of the grounds for "Good Reason" and a reasonable cure period of not less than 30 days following the date of such notice.

- "*Good Reason*" (applies to Mr. Fein): means the named executive officer's resignation within two years following the expiration of any of our cure periods (discussed below) following the occurrence of one or more of the following events without the named executive officer's consent: (1) a material reduction of the named executive officer's base salary (for purposes of this definition, the reduction of base salary by less than 10% from the named executive officer's then-present base salary shall not be considered a material reduction); provided that, an across-the-board reduction in the salary level of all other senior executives by the same percentage amount as part of a general salary level reduction shall not constitute such a material reduction; (2) the assignment to the named executive officer of any duties, or the reduction of the named executive officer's duties, either of which results in a material diminution in the named executive officer's authority, duties or responsibilities with us in effect immediately prior to such assignment or reduction, or the removal of the named executive officer from such position and responsibilities, unless the named executive officer is provided with comparable authority, duties or responsibilities; provided that, neither a mere change in title alone nor reassignment following a change of control to a position that is substantially similar to the position held prior to the change of control in terms of job duties, responsibilities and requirements shall constitute a material reduction in job responsibilities; or (3) a material change in the geographic location at which the named executive officer must perform services (for purposes of this definition, the relocation of the named executive officer to a facility or a location less than 50 miles from the named executive officer's then-present location shall not be considered a material change in geographic location). The named executive officer will not resign for "Good Reason" without first providing us with written notice of the acts or omissions constituting the grounds for "Good Reason" within 90 days of the initial existence of the grounds for "Good Reason" and a reasonable cure period of not less than 30 days following the date of such notice.

Potential Payments Upon Termination or Change of Control

The table below provides an estimate of the value of the compensation and benefits due to each of our named executive officers in the events described below, assuming that the termination of employment or change in control was effective on December 31, 2010, under the agreements described above. The actual amounts to be paid can only be determined at the time of the termination of employment or change of control, as applicable.

Termination without Cause or Resignation for Good Reason

	Salary Continuation ($)	Bonus ($)	Value of Accelerated EquityAwards ($)[1]		Continuation of HealthcareCoveragePremiums ($)	Total ($)
William Colleran	137,509	137,509	157,500	[2]	10,096	442,614
Evan Fein	103,534	—	—		10,096	113,630
Chris Diorio	137,509	137,509	99,167	[3]	10,096	384,281
Steve Voit	113,983	—	—		—	113,983
John Quist	51,346	—	—		—	51,346

(1) Amounts indicated in the table are calculated as the difference between the fair value of a share of common stock underlying the options subject to accelerated vesting on December 31, 2010 and the exercise price of these options, multiplied by the number of accelerated shares. The fair value of a share of common stock on December 31, 2010 was $0.75.

(2) As of December 31, 2010, 225,000 shares of common stock subject to Dr. Colleran's options would accelerate if he were either terminated without cause or resigns for good reason, which is 25% of the shares subject to the options granted to Dr. Colleran that were unvested as of December 31, 2010.

(3) As of December 31, 2010, 141,667 shares of common stock subject to Dr. Diorio's options would accelerate if he were either terminated without cause or resigns for good reason, which is 25% of the shares subject to the options granted to Dr. Diorio that were unvested as of December 31, 2010.

Termination without Cause or Resignation for Good Reason on or following a Change of Control

	Salary Continuation ($)	Bonus ($)	Value of AcceleratedEquityAwards ($)[1]		Continuation of HealthcareCoveragePremiums ($)	Total ($)
William Colleran	275,018	137,509	630,000	[2]	10,096	1,052,623
Evan Fein	103,534	—	76,568	[3]	10,096	190,198
Chris Diorio	275,018	137,509	396,667	[4]	10,096	819,290
Steve Voit	113,983	—	253,093	[5]	—	367,076
John Quist	51,346	—	118,571	[6]	—	169,917

(1) Amounts indicated in the table are calculated as the difference between the fair value of a share of common stock underlying the options subject to accelerated vesting on December 31, 2010 and the exercise price of these options, multiplied by the number of accelerated shares. The fair value of a share of common stock on December 31, 2010 was $0.75.

(2) As of December 31, 2010, 900,001 shares of common stock subject to Dr. Colleran's options would accelerate if he were either terminated without cause or resigns for good reason, which is 100% of the shares subject to the options granted to Dr. Colleran that were unvested as of December 31, 2010.

(3) As of December 31, 2010, 110,237 shares of common stock subject to Mr. Fein's options would accelerate if he were either terminated without cause or resigns for good reason, which is 50% of the shares subject to the options granted to Mr. Fein that were unvested as of December 31, 2010.

(4) As of December 31, 2010, 566,667 shares of common stock subject to Dr. Diorio's options would accelerate if he were either terminated without cause or resigns for good reason, which is 100% of the shares subject to the options granted to Dr. Diorio that were unvested as of December 31, 2010.

(5) As of December 31, 2010, 361,561 shares of common stock subject to Mr. Voit's options would accelerate if he were either terminated without cause or resigns for good reason, which is 50% of the shares subject to the options granted to Mr. Voit that were unvested as of December 31, 2010.

(6) As of December 31, 2010, 169,997 shares of common stock subject to Mr. Quist's options would accelerate if he were terminated without cause, which is 50% of the shares subject to the options granted to Mr. Quist that were unvested as of December 31, 2010.

Employee Benefit Plans

2011 Employee Stock Purchase Plan

Our executive officers and all of our other employees will be allowed to participate in our 2011 Employee Stock Purchase Plan, which will be effective upon the completion of this offering. We believe that providing them the opportunity to participate in the 2011 Employee Stock Purchase Plan provides them with a further incentive towards ensuring our success and accomplishing our corporate goals.

The specific provisions of our 2011 Employee Stock Purchase Plan are as provided for below.

Our board of directors intends to adopt, and we expect our stockholders will approve, prior to the completion of this offering, our 2011 Employee Stock Purchase Plan. The 2011 Employee Stock Purchase Plan will become effective upon completion of this offering.

A total of shares of our common stock will be made available for sale under the 2011 Employee Stock Purchase Plan. In addition, our 2011 Employee Stock Purchase Plan provides for annual increases in the number of shares available for issuance under plan on the first day of each fiscal year beginning in 2012, equal to the least of:

- % of the outstanding shares of our common stock on the first day of such year;
- shares of common stock; or
- such amount as determined by our board of directors.

Our compensation committee administers the 2011 Employee Stock Purchase Plan, and has full and exclusive authority to interpret the terms of the plan and determine eligibility to participate subject to the conditions of the plan as described below.

All of our employees are eligible to participate if they are employed by us, or any participating subsidiary, for at least 20 hours per week and more than five months in any calendar year. However, an employee may not be granted an option to purchase stock under the 2011 Employee Stock Purchase Plan if such employee:

- immediately after the grant would own stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock; or
- hold rights to purchase stock under all of our employee stock purchase plans that accrue at a rate that exceeds $25,000 worth of stock for each calendar year.

Our 2011 Employee Stock Purchase Plan is intended to qualify under Section 423 of the Code. Each offering period includes purchase periods, which will be the approximately six month-period commencing with one exercise date and ending with the next exercise date. The offering periods are scheduled to start on the first trading day on or after and of each year, except for the first such offering period, which will commence on the first trading day on or after completion of this offering and will end on the first trading day on or after .

Our 2011 Employee Stock Purchase Plan permits participants to purchase common stock through payroll deductions of up to % of their eligible compensation, which includes a participant's base straight time gross earnings, certain commissions, overtime and shift premium, but exclusive of payments for incentive compensation, bonuses and other compensation. A participant may purchase a maximum of shares during a six month-period.

Amounts deducted and accumulated by the participant are used to purchase shares of our common stock at the end of each six-month purchase period. The purchase price of the shares will be 85% of the lower of the fair market value of our common stock on the first trading day of each offering period or on the exercise date. If the -110- fair market value of our common stock on the exercise date is less than the fair market value on the first trading day of the offering period, participants will be withdrawn from the current offering period following their purchase of shares on the purchase date and will be automatically re-enrolled in a new offering period. Participants may end their participation at any time during an offering period, and will be paid their accrued contributions that have not yet been used to purchase shares of common stock. Participation ends automatically upon termination of employment with us.

A participant may not transfer rights granted under the 2011 Employee Stock Purchase Plan. If the compensation committee permits the transfer of rights, it may only be done other than by will, the laws of descent and distribution, or as otherwise provided under the 2011 Employee Stock Purchase Plan.

In the event of our merger or change in control, as defined under the 2011 Employee Stock Purchase Plan, a successor corporation may assume or substitute for each outstanding option. If the successor corporation refuses to assume or substitute for the option, the offering period then in progress will be shortened, and a new exercise date will be set. The administrator will notify each participant that the exercise date has been changed and that the

participant's option will be exercised automatically on the new exercise date unless prior to such date the participant has withdrawn from the offering period.

Our 2011 Employee Stock Purchase Plan will automatically terminate in 2031, unless we terminate it sooner. Our board of directors has the authority to amend, suspend or terminate our 2011 Employee Stock Purchase Plan, except that, subject to certain exceptions described in the 2011 Employee Stock Purchase Plan, no such action may adversely affect any outstanding rights to purchase stock under our 2011 Employee Stock Purchase Plan.

2011 Equity Incentive Plan

Our board of directors intends to adopt, and we expect our stockholders will approve, our 2011 Equity Incentive Plan prior to the completion of this offering. Subject to stockholder approval, the 2011 Equity Incentive Plan is effective upon the later to occur of its adoption by our board of directors and the effective date of this offering, and is not expected to be utilized until after the completion of this offering. Our 2011 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and any of our parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

A total of shares of our common stock are reserved for issuance pursuant to the 2011 Equity Incentive Plan, of which no awards are issued and outstanding. In addition, the shares reserved for issuance under our 2011 Equity Incentive Plan will also include (1) those shares reserved but unissued under the 2010 Plan (as defined below) as of the effective date of the first registration statement filed by us and declared effective with respect to any class of our securities and (2) shares returned to the 2010 Plan and 2000 Plan (each as defined below) as the result of expiration or termination of options (provided that the maximum number of shares that may be added to the 2011 Equity Incentive Plan pursuant to (1) and (2) is shares). The number of shares available for issuance under the 2011 Equity Incentive Plan will also include an annual increase on the first day of each year beginning in 2012, equal to the least of:

- shares;
- % of the outstanding shares of common stock as of the last day of the immediately preceding fiscal year; or
- such other amount as our board of directors may determine.

Our compensation committee will administer our 2011 Equity Incentive Plan after the completion of the offering. In the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code, the committee will consist of two or more "outside directors" within the meaning of Section 162(m).

Subject to the provisions of our 2011 Equity Incentive Plan, the administrator has the power to determine the terms of the awards, including the exercise price, the number of shares subject to each such award, the exercisability of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards to reduce their exercise price, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered in exchange for awards with a higher or lower exercise price.

The exercise price of options granted under our 2011 Equity Incentive Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any participant who owns 10% of the total combined voting power of all classes of our outstanding stock, the term must not exceed 5 years and the exercise price must equal at least 110% of the fair market value on the grant date. Subject to the provisions of our 2011 Equity Incentive Plan, the administrator determines the term of all other options.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option or stock appreciation right for the period of time stated in his or her award agreement to the extent that the option is vested on the date of termination. Generally, if termination is due to death or disability, the option or stock appreciation right will remain exercisable for 12 months. In all other cases, the option or stock appreciation right will generally remain exercisable for three months following the termination of service. However, in no event may an option be exercised later than the expiration of its term.

Stock appreciation rights may be granted under our 2011 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Subject to the provisions of our 2011 Equity Incentive Plan, the administrator determines the terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Awards of restricted stock may be granted under our 2011 Equity Incentive Plan, which are grants of shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares granted and may impose whatever conditions to vesting it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to us). The administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Awards of restricted stock units may be granted under our 2011 Equity Incentive Plan, which are bookkeeping entries representing an amount equal to the fair market value of one share of our common stock. The administrator determines the terms and conditions of restricted stock units including the number of units granted, the vesting criteria (which may include accomplishing specified performance criteria or continued service to us) and the form and timing of payment. The administrator, in its sole discretion may accelerate the time at which any restrictions will lapse or be removed.

Awards of performance units and performance shares may be granted under our 2011 Equity Incentive Plan, which are awards that will result in a payment to a participant only if performance goals established by the -112- administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or performance shares. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination thereof.

Our 2011 Equity Incentive Plan provides that all non-employee directors will be eligible to receive all types of awards (except for incentive stock options) under the 2011 Equity Incentive Plan. Please see the description of our Outside Director Equity Compensation Policy below.

Unless the administrator provides otherwise, our 2011 Equity Incentive Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Our 2011 Equity Incentive Plan provides that in the event of a merger or "change in control," as defined in the 2011 Equity Incentive Plan, each outstanding award will be treated as the administrator determines, including that the successor corporation or its parent or subsidiary will assume or substitute an equivalent award for each outstanding award. The administrator is not required to treat all awards similarly. If there is no assumption or substitution of outstanding awards, the awards will fully vest, all restrictions will lapse, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and the awards will become fully exercisable. The administrator will provide notice to the recipient that he or she has the right to exercise the option and stock appreciation right as to all of the shares subject to the award, all restrictions on restricted stock will lapse, and all performance goals or other vesting requirements.

2010 Equity Incentive Plan, as amended

Our 2010 Equity Incentive Plan, or the 2010 Plan, was adopted by our board of directors on March 23, 2010 and approved by our stockholders on March 25, 2011, and was amended by our board of directors on June 30, 2010 and February 24, 2011.

The 2010 Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any affiliates' employees, and for the grant of nonstatutory stock options and awards of restricted or unrestricted shares of common stock to our employees, consultants, and advisors and our affiliates' employees, consultants, and advisors. However, no advisor or consultant is eligible to receive an award under the 2010 Plan if such person's participation in the 2010 Plan adversely affects our compliance with Rule 701 of the Securities Act of 1933 or with any other applicable law. Our board of directors has decided not to grant any additional options under our 2010 Plan upon the completion of this offering. However, the 2010 Plan will continue to govern the terms and conditions of the outstanding stock options and stock awards previously granted under the 2010 Plan.

Subject to the provisions of the 2010 Plan, the maximum aggregate number of shares (subject to adjustment) of our common stock, par value $0.001 per share, which may be subject to awards and sold under the 2010 Plan is 7,381,946 shares plus shares that were subject to stock options or similar awards granted under the 2000 Stock Option Plan that expired or terminated without having been exercised in full and unvested shares issued pursuant to awards granted under the 2000 Stock Option Plan that were forfeited to or repurchased by us. Shares issued pursuant to awards under the 2010 Plan that we repurchase or that expire or are forfeited, as well as shares used to pay the exercise price of an award or to satisfy the tax withholding obligations related to an award, will become available for future grant under the 2010 Plan. In addition, to the extent that an award is paid out in cash rather than shares, such cash payment will not reduce the number of shares available for issuance under the 2010 Plan.

As of March 31, 2011, options to purchase 6,091,687 shares of our common stock were outstanding under the 2010 Plan. If an option expires or becomes unexercisable without having been exercised in full, such shares will become available for future grant or sale.

Our board of directors currently administers the 2010 Plan. Under the 2010 Plan, the administrator has the authority and discretion to select those individuals who will receive awards, choose the type or types of awards to be granted to selected individuals, and determine the terms that will apply to the awards granted (including the number of shares of common stock that the recipient may be entitled to receive or purchase), which terms may vary from award to award. The administrator also may authorize generally or in specific cases any adjustment in the exercise price, vesting schedule, number of shares subject to, or the term of any option by cancelling an outstanding option and subsequently regranting the option by amendment, substitution, waiver, or other legally valid means. The administrator also has the authority to determine the fair market value of a share of our common stock for purposes of the 2010 Plan and the awards granted thereunder. The administrator is authorized to interpret the provisions of the 2010 Plan and individual award agreements, and generally take any other actions that are contemplated by the 2010 Plan or necessary or appropriate in the administration of the 2010 Plan and individual award agreements. All decisions of the administrator are final and binding on all persons.

The administrator may grant incentive and/or nonstatutory stock options under the 2010 Plan, provided that incentive stock options are only granted to employees. The exercise price of such options must equal at least the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed ten years; provided, however, that an incentive stock option held by a participant who owns more than 10% of the total combined voting power of all classes of our stock, or of certain of our affiliates, may not have a term in excess of five years and must have an exercise price of at least 110% of the fair market value of our common stock on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, check, promissory note, shares or other property acceptable to the administrator. Subject to the provisions of the 2010 Plan, the administrator determines the remaining terms of the options (e.g., vesting).

Stock appreciation rights may be granted under our 2010 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Subject to the provisions of our 2010 Plan, the administrator determines the terms of stock appreciation rights, including when such rights vest and become exercisable and whether to settle such awards in cash or with shares of our

common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant. The specific terms will be set forth in an award agreement.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option or stock appreciation for the period of time stated in his or her award agreement. Generally, if termination is due to death or disability, the option or stock appreciation right will remain exercisable for six months. In all other cases, the option will generally remain exercisable for 30 days following the termination of service. In some cases, options or stock appreciation rights issued to consultants pursuant to our 2010 Plan provide that they may be exercised at any time prior to the expiration of the ten year term of the option or stock appreciation right. However, in no event may an option or stock appreciation right be exercised later than the expiration of its term. In the event a participant is terminated for cause and the participant acquired vested shares pursuant to the exercise of an option or stock appreciation right under the 2010 Plan, we have the right to repurchase those shares during the 90-day period following the termination date.

Restricted stock may be granted under our 2010 Plan. Restricted stock awards are grants of shares of our common stock that are subject to various restrictions, including restrictions on transferability and forfeiture provisions. Shares of restricted stock will vest and the restrictions on such shares will lapse, in accordance with terms and conditions established by the administrator. The administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have -114- voting and dividend rights with respect to such shares upon grant without regard to vesting, unless the administrator provides otherwise. Shares of restricted stock that do not vest for any reason will be forfeited by the recipient and will revert to us. The specific terms will be set forth in an award agreement.

Restricted stock units may be granted under our 2010 Plan. Each restricted stock unit granted is a bookkeeping entry representing an amount equal to the fair market value of one share of our common stock. The administrator determines the terms and conditions of restricted stock units including the vesting criteria, which may include achievement of specified performance criteria or continued service to us, and the form and timing of payment. The administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout. The administrator determines in its sole discretion whether an award will be settled in stock, cash or a combination of both. The specific terms will be set forth in an award agreement.

Unless the administrator provides otherwise, our 2010 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

In the event of certain changes in our capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under the 2010 Plan, the administrator will make proportionate adjustments to the exercise price and/or the number and/or type of shares covered by each award. The administrator may also provide for cash payments, or for the exchange of outstanding options granted under the 2010 Plan for other awards in such circumstances, such as by conversion, assumption, or substitution of an option for another company's options on a ratio corresponding to the terms of a merger or other reorganization.

Our 2010 Plan provides that in the event of a merger or change in control, as defined under the 2010 Plan, each outstanding award will be treated as the administrator determines, except that if a successor corporation or its parent or subsidiary does not assume or substitute an equivalent award for any outstanding award, then such award will fully vest, all restrictions on such award will lapse, all performance goals or other vesting criteria applicable to such award will be deemed achieved at 100% of target levels and such award will become fully exercisable, if applicable, for a specified period prior to the transaction. The award will then terminate upon the expiration of the specified period of time.

Our board of directors has the authority to amend, alter, suspend or terminate the 2010 Plan, provided such action does not impair the existing rights of any participant. Our 2010 Plan will automatically terminate in 2020 unless we terminate it sooner.

2000 Stock Plan

Our 2000 Stock Option Plan, or the 2000 Plan, was adopted by our board of directors and approved by our stockholders on April 6, 2000. The 2000 Plan was terminated on March 31, 2010. Following the termination of our 2000 Plan, we did not grant any additional awards under the 2000 Plan, but the 2000 Plan will continue to govern the terms and conditions of the outstanding awards previously granted thereunder.

Our 2000 Plan provided for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any subsidiary's employees, and for the grant of nonqualified stock options and stock purchase rights to our employees and consultants and our affiliates' or subsidiary's employees and consultants.

Subject to the provisions of our 2000 Plan, the maximum aggregate number of shares issuable under our 2000 Plan was 27,113,054 shares. As of March 31, 2011, options to purchase 15,822,701 shares of our common stock were outstanding under the 2000 Plan. If an option expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an option exchange program, such shares will become available for future grant or sale.

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Our board of directors currently administers our 2000 Plan. Under our 2000 Plan, the administrator has the power to determine the terms of awards, including the recipients, the exercise price, if any, the number of shares covering each awards, the fair market value of a share of common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, the form of consideration, if any, payable upon exercise of the award, and the terms of the award agreements for use under the 2000 Plan. The administrator has the authority to implement an option exchange program on such terms and conditions as it deems appropriate, provided that no amendment or adjustment, without participant's prior written consent, may adversely affect any rights of a participant. The administrator also may modify any outstanding option without a participant's consent if necessary to avoid our incurring adverse accounting charges. The administrator has the authority to interpret all provisions of the 2000 Plan, to prescribe the form of stock option agreements, and to adopt, amend, and rescind rules pertaining to the administration of the 2000 Plan. Any decision made, or action taken, by the administrator or in connection with the administration of the 2000 Plan shall be final and conclusive on all persons.

The exercise price of options granted under our 2000 Plan had to be at least equal to the fair market value of our common stock on the date of grant for incentive stock options and 85% of the fair market value of our common stock on the date of grant for nonstatutory stock options, except that with respect to any optionee who owned 10% of the voting power of all classes of our outstanding stock as of the grant date, the exercise price had to equal at least 110% of the fair market value on the grant date. The term of an incentive stock option had to not exceed ten years, except that with respect to any optionee who owned 10% of the voting power of all classes of our outstanding stock as of the grant, the term could not exceed five years. Unless otherwise provided in the option agreement, payment of the exercise price of an option will be made in cash or a cash equivalent acceptable to the administrator. The administrator also may provide that for the payment of the exercise price of an option by shares. Subject to the provisions of our 2000 Plan, the administrator determined the terms of all other options in its discretion.

After the termination of service of an employee or consultant, he or she may exercise his or her award to the extent vested for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the award will remain exercisable for six months (12 months in the case of a termination due to death). In all other cases, the award will generally remain exercisable for 30 days following the termination of service. However, in no event may an option be exercised later than the expiration of its term. In the event a participant is terminated for cause and the participant acquired vested shares pursuant to the exercise of an option under the 2000 Plan, we have the right to repurchase those shares during the 90-day period following the termination date.

Unless the administrator provides otherwise, our 2000 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

In the event of certain changes in our capitalization, we or the administrator shall make proportionate adjustments to the number, value, and class of stock represented by the outstanding awards in accordance with such terms as we or the administrator may determine.

In the event of a merger or consolidation of us (regardless of whether we are the surviving corporation), or a sale of substantially all of our assets, each outstanding award shall be assumed or substituted for by the successor corporation. If the successor corporation refuses to assume the award or to substitute an equivalent option or right, the outstanding award shall terminate upon the consumption of the transaction.

Our board of directors has the authority to amend, suspend or terminate the 2000 Plan provided such action does not impair the rights of any optionee without his or her written consent.

Retirement Plans

401(k) Plan. We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to participate in the -116- 401(k) plan as of the first day of the month on or following the date they begin employment and participants are able to defer up to the lesser of 90% of their eligible compensation or $16,500. All participants' interests in their deferrals are 100% vested when contributed. The 401(k) plan permits us to make matching contributions and profit sharing contributions to eligible participants, although we have not made any such contributions to date. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Internal Revenue Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan and all contributions are deductible by us when made.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and amended and restated bylaws, each to be effective upon the completion of this offering, will provide that we will indemnify our directors and officers, and may indemnify our employees and other agents, to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we plan to enter into indemnification agreements with each of our current directors, officers and some employees before the completion of this offering. These agreements will provide for the indemnification of our directors, officers and some employees for certain expenses and liabilities incurred in connection with any action, suit, proceeding or alternative dispute resolution mechanism, or hearing, inquiry or investigation that may lead to the foregoing, to which they are a party, or are threatened to be made a party, by reason of the fact that they are or were a director, officer, employee, agent or fiduciary of us, or any of our subsidiaries, by reason of any action or inaction by them while serving as an officer, director, agent or fiduciary, or by reason of the fact that they were serving at our

request as a director, officer, employee, agent or fiduciary of another entity. In the case of an action or proceeding by or in the right of us or any of our subsidiaries, no indemnification will be provided for any claim where a court determines that the indemnified party is prohibited from receiving indemnification. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against -117- directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

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Certain Relationships and Related Party Transactions

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS The following is a summary of transactions since January 1, 2008 to which we have been a party in which the amount involved exceeded $120,000 and in which any of our executive officers, directors, promoters or beneficial holders of more than 5% of our capital stock had or will have a direct or indirect material interest, other than compensation arrangements which are described under the section of this prospectus entitled "Management—Executive Compensation."

Related Party Transaction Policy

We intend to adopt prior to the completion of this offering a formal, written policy that our executive officers, directors (including director nominees), holders of more than 5% of any class of our voting securities and any member of the immediate family of or any entities affiliated with any of the foregoing persons, are not permitted to enter into a related party transaction with us without the prior approval or, in the case of pending or ongoing related party transactions, ratification of our audit committee. For purposes of our policy, a related party transaction is a transaction, arrangement or relationship where we were, are or will be involved and in which a related party had, has or will have a direct or indirect material interest.

Certain transactions with related parties, however, are excluded from the definition of a related party transaction including, but not limited to (1) transactions involving the purchase or sale of products or services in the ordinary course of business, not exceeding $20,000, (2) transactions where a related party's interest derives solely from his or her service as a director of another entity that is a party to the transaction, (3) transactions where a related party's interest derives solely from his or her ownership of less than 10% of the equity interest in another entity that is a party to the transaction and (4) transactions where a related party's interest derives solely from his or her ownership of a class of our equity securities and all holders of that class received the same benefit on a pro rata basis.

No member of the audit committee may participate in any review, consideration or approval of any related party transaction where such member or any of his or her immediate family members is the related party. In approving or rejecting the proposed agreement, our audit committee shall consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to (1) the benefits and perceived benefits to us, (2) the materiality and character of the related party's direct and indirect interest, (3) the availability of other sources for comparable products or services, (4) the terms of the transaction and (5) the terms available to unrelated third parties under the same or similar circumstances. In reviewing proposed related party transactions, the audit committee will only approve or ratify related party transactions that are in, or not inconsistent with, the best interests of us and our stockholders.

The transactions described below were consummated prior to our adoption of the formal, written policy described above and therefore the foregoing policies and procedures were not followed with respect to the transactions. However, we believe that the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described were comparable to terms available or the amounts that would be paid or received, as applicable, in arm's-length transactions.

Bridge Debt Financing

In June and July 2010, we issued approximately $6.0 million aggregate principal amount of our subordinated secured convertible promissory notes, or 2010 Notes, to existing investors. Interest on the 2010 Notes accrues interest on the unpaid principal balance at 9.0% per year, and all unpaid principal, accrued interest and any other amounts payable under the 2010 Notes are due and payable on the earlier to occur of (1) June 30, 2011 and (2) when upon the occurrence and during the continuance of an event of default listed in the 2010 Notes, such amounts are declared due and payable by the investor; provided, the 2010 Notes shall become payable immediately prior to the closing of a liquidation event, including an initial public offering; provided further that, if a liquidity event has not occurred prior to the scheduled maturity date, the maturity date may be -119- extended by the vote of holders of more than 60% of the aggregate principal amount of the 2010 Notes. We expect that that the maturity date of the 2010 Notes will be extended if the offering contemplated by this prospectus is consummated after the scheduled maturity date. We are required to repay all principal and accrued interest on the 2010 Notes plus a premium equal to the sum of the outstanding principal and accrued interest on the 2010 Notes in connection with the consummation of an initial public offering; however, holders of at least $100,000 aggregate principal amount of the 2010 Notes may, at their option, convert the principal amount of their 2010 Notes plus accrued interest into (1) shares of our Series E preferred stock at a conversion price of $2.286 per share (which conversion price is subject to adjustments for stock splits, reverse stock splits, stock dividends and the like) or (2) if all of the shares of our Series E preferred stock are converted into shares of our common stock, a number of shares of common stock that holders would have received had they converted their notes in to

Series E preferred stock immediately prior to the conversion pursuant to our certificate of incorporation. The 2010 Notes contain customary events of default and covenants. We were in compliance with such covenants as of December 31, 2010. Our obligations under the 2010 Notes are secured by substantially all of our assets other than intellectual property. The 2010 Notes are subordinate in right of payment to the credit facilities described above in the section captioned "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus. As of December 31, 2010, approximately $6.0 million aggregate principal amount of our convertible notes were outstanding. We currently expect that the 2010 Notes will become due and payable upon the closing of this offering, and we intend to use a portion of the net proceeds from this offering to satisfy our repayment obligations under the 2010 Notes.

Each investor who purchased a 2010 Note also received a warrant to purchase a number of shares of our Series E preferred stock equal to the quotient obtained by dividing (x) the sum of (A) 30% of the principal amount of the 2010 Note up to the maximum of the pro rata amount set forth in the Note and Warrant Purchase Agreement purchased by such investor and (B) 50% of any other participation amount over the pro rata amount as set forth in the Note and Warrant Purchase Agreement by (y) $2.286, which warrants are currently exercisable for rights to purchase an aggregate of 890,721 shares of our Series E preferred stock at a purchase price per share of $2.286.

The table below sets forth (1) the principal amount of 2010 Notes purchased by each of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of or any entities affiliated with any of the foregoing persons and (2) the number of shares of our Series E preferred stock currently issuable upon the exercise of warrants issued in connection with the purchase of our 2010 Notes.

Purchaser	Principal Amount of 2010 Note(s) Purchased	Number of Shares of Series E Preferred StockCurrently Issuable uponExercise of Warrant(s)Issued in Connection with2010 Notes
Entities affiliated with Madrona Venture Group[(1)]	$920,046	120,740
Entities affiliated with ARCH Venture Partners[(2)]	994,522	130,514
Entities affiliated with Polaris Venture Partners.[(3)]	972,083	127,569
Entities affiliated with Mobius Venture Capital, Inc.[(4)]	718,056	94,231
Middlefield Ventures, Inc.[(5)]	205,496	26,968
Total	$3,810,203	500,022

(1) Consists of a 2010 Note in the principal amount of $740,347 and a related warrant currently exercisable for 97,158 shares issued to Madrona Venture Fund 1-A, L.P., a 2010 Note in the principal amount of $80,576 and a related warrant currently exercisable for 10,574 shares issued to Madrona Venture Fund 1-B, L.P., and a 2010 Note in the principal amount of $99,123 and a related warrant currently exercisable for 13,008 shares issued to Madrona Managing Director Fund, L.L.C., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock. Tom A. Alberg, a managing director of Madrona Venture Group, is a member of our board of directors.

(2) Consists of a 2010 Note in the principal amount of $987,866 and a related warrant currently exercisable for 129,641 shares issued to ARCH Venture Fund V, L.P., and a 2010 Note in the principal amount of $6,656 and a related warrant currently exercisable for 873

shares issued to ARCH V Entrepreneurs Fund, L.P., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock. Clinton Bybee, a managing director of ARCH Venture Partners, is a member of our board of directors.

(3) Consists of a 2010 Note in the principal amount of $933,773 and a related warrant currently exercisable for 122,542 shares issued to Polaris Venture Partners III, L.P., a 2010 Note in the principal amount of $23,805 and a related warrant currently exercisable for 3,124 shares issued to Polaris Venture Partners Entrepreneurs' Fund III, L.P., and a 2010 Note in the principal amount of $14,505 and a related warrant currently exercisable for 1,903 shares issued to Polaris Venture Partners Founders' Fund III, L.P., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock. Stephen D. Arnold, Ph.D., a venture partner of Polaris Venture Partners, is a member of our board of directors.

(4) Consists of a 2010 Note in the principal amount of $333,609 and a related warrant currently exercisable for 43,780 shares issued to Mobius Technology Ventures VI L.P., a 2010 Note in the principal amount of $357,807 and a related warrant currently exercisable for 46,956 shares issued to SOFTBANK U.S. Ventures Fund VI L.P., a 2010 Note in the principal amount of $12,997 and a related warrant currently exercisable for 1,705 shares issued to Mobius Technology Ventures Advisors Fund VI L.P. and a 2010 Note in the principal amount of $13,643 and a related warrant currently exercisable for 1,790 shares issued to Mobius Technology Ventures Side Fund VI L.P., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock.

(5) Middlefield Ventures, Inc. is affiliated with Intel Corporation, a holder of more than 5% of our outstanding shares of common stock.

2009 Stock Option Exchange

In September 2009, we offered eligible holders of our stock options the opportunity to exchange certain options for new options with an exercise price per share equal to the fair value of our common stock on September 23, 2009 and extended vesting periods. The participation of our executive officers and directors in this exchange is described in this prospectus under the caption "Management."

Customer Agreements

In April 2009 we entered into an agreement with Intel who is also a holder of our common stock and preferred stock. Under the terms of the agreement, Intel purchased certain engineering services related to our technology, and we completed performance of those services in 2009. For the year ended December 31, 2009, we recorded revenue of $67,000 under this agreement.

In December 2009 we entered into a second agreement with Intel for additional engineering services related to our technology, and we are continuing to perform under a March 2010 amendment to that agreement. For the year that ended December 31, 2009, no revenue was recognized under this agreement. For the year ended December 31, 2010, we recorded revenue of $668,000 under this agreement.

Investors' Rights Agreement

We have entered into an investors' rights agreement with certain holders of our common stock and convertible preferred stock, including the stockholders with which certain of our directors are affiliated. As of March 31, 2011, the holders of 121,124,172 shares of our common stock, including the shares of common stock issuable upon the conversion of our convertible preferred stock, are entitled to rights with respect to the registration of their shares under the Securities Act. For a description of these registration rights, see "Description of Capital Stock—Registration Rights."

Other Transactions

We have entered into employment agreements with our executive officers that, among other things, provide for certain severance and change of control benefits. For a description of these agreements, see "Executive Compensation—Executive Employment Agreements."

We have granted stock options to our executive officers and to two of our non-executive directors. For a description of these options, see "Management—Director Compensation" and "Executive Compensation."

We will enter into indemnification agreements with our directors and executive officers prior to the completion of this offering. For a description of these agreements, see "Management—Limitation of Liability and Indemnification."

Principal and Selling Stockholders

PRINCIPAL AND SELLING STOCKHOLDERS The following table sets forth the beneficial ownership of our common stock as of March 31, 2011 by:

- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock;
- each of the named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- the selling stockholders, which consist of the entities and individuals shown as having shares listed in the column "Shares Being Offered."

The percentage of beneficial ownership prior to the offering shown in the table is based upon 132,776,294 shares outstanding as of March 31, 2011. The percentage of beneficial ownership after this offering shown in the table is based on shares of common stock outstanding after the closing of this offering, assuming no exercise of the underwriters' over-allotment option.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of more than 5% of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable on or before the 60th day after March 31, 2011. These shares are deemed to be outstanding and beneficially owned by the person holding those options or a warrant for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for person or entity listed in the table is c/o Impinj, Inc., 701 North 34th Street, Suite 300, Seattle, Washington 98103.

	Shares Beneficially Owned Prior to this Offering			Shares Beneficially Owned After thisOffering	
Name of Beneficial Owner	Number	Percentage	Number of SharesBeingOffered	Number	Percentage
5% Stockholders and Selling Stockholders(1)					
Entities affiliated with ARCH Venture Partners(2)	19,518,725	14.69%			
Entities affiliated with Polaris Venture Partners(3)	19,078,335	14.35			
Entities affiliated with Madrona Venture Group(4)	18,057,043	13.59			
Entities affiliated with Mobius Venture Capital, Inc.(5)	14,092,735	10.61			

Intel Corporation[6]	8,767,681	6.60	

Named Executive Officers and Directors

William T. Colleran, Ph.D.[7]	7,100,000	5.10	
Evan Fein[8]	1,185,000	*	
Chris Diorio, Ph.D.[9]	13,600,000	10.15	
Steve Voit[10]	1,782,193	1.32	
John Quist[11]	775,000	*	
Tom A. Alberg[4]	18,057,043	13.59	—
Stephen D. Arnold, Ph.D.[6]	19,078,335	14.35	—
Clinton Bybee[2]	19,518,725	14.69	
Gregory Sessler	—	—	—
Albert Yu, Ph.D.[12]	475,000	*	—
All directors and executive officers as a group (10 persons)	81,571,296	59.71	

* Represents beneficial ownership of less than 1%.

(1) Dr. Diorio is also a holder of greater than 5% of our outstanding shares of common stock.

(2) Consists of 119,688 shares and a warrant to purchase 873 shares held of record by ARCH V Entrepreneurs Fund, L.P. and 19,268,523 shares and a warrant to purchase 129,641 shares held of record by ARCH Venture Fund V, L.P. ARCH Venture Partners V, L.P., as the sole general partner of Arch Venture Fund V, L.P. and ARCH V Entrepreneurs Fund, L.P., may be deemed to beneficially own certain of the shares held of record by Arch Venture Fund V, L.P. and ARCH V Entrepreneurs Fund, L.P., but disclaims beneficial ownership of such shares, in which it does not have an actual pecuniary interest. Mr. Bybee disclaims beneficial ownership of all shares held of record by Arch Venture Fund V, L.P. and ARCH V Entrepreneurs Fund, L.P., in which he does not have an actual pecuniary interest. By virtue of their relationship as affiliated entities who have overlapping general partners and managing directors, ARCH Venture Fund V, L.P., ARCH V Entrepreneurs Fund, L.P., ARCH Venture Partners V, L.P., ARCH Venture Partners V, LLC and each managing director may be deemed to share the voting and investment control of the record shares. The address of Arch Venture Fund V, L.P., ARCH V Entrepreneurs Fund, L.P. and Mr. Bybee is 1000 Second Avenue, Suite 3700, Seattle, Washington 98104.

(3) Consists of 18,193,717 shares and a warrant to purchase 122,542 shares held of record by Polaris Venture Partners III. L.P., 470,999 shares and a warrant to purchase 3,124 shares held of record by Polaris Venture Partners Entrepreneur's Fund III, L.P. and 286,050 shares and a warrant to purchase 1,903 shares held of record by Polaris Venture Partners Founders' Fund III, L.P. Polaris Venture Management Co. III, L.L.C., as the sole general partner of Polaris Venture Partners III, L.P., Polaris Venture Partners Entrepreneur's Fund III, L.P. and Polaris Venture Partners Founders' Fund III, L.P., may be deemed to beneficially own certain of the shares held of record by Polaris Venture Partners III, L.P., Polaris Venture Partners Entrepreneur's Fund III, L.P. and Polaris Venture Partners Founders' Fund III, L.P. but disclaims beneficial ownership of such shares, in which it does not have an actual pecuniary interest. Dr. Arnold disclaims beneficial ownership of all shares held of record by Polaris Venture Partners III, L.P., Polaris Venture Partners Entrepreneur's Fund III, L.P. and Polaris Venture Partners Founders' Fund III, L.P., in which he does not have an actual pecuniary interest. By virtue of their relationship as affiliated entities who have overlapping general partners and managing directors, Polaris Venture Management Co. III, L.L.C., Polaris Venture Partners III, L.P., Polaris Venture Partners Entrepreneur's Fund III, L.P., Polaris Venture Partners Founders' Fund III, L.P. and each managing director may be deemed to share the voting and investment control of the record shares. The address of Polaris Venture Partners III, L.P., Polaris Venture Partners Entrepreneur's Fund III, L.P., Polaris Venture Partners Founders' Fund III, L.P. is 1000 Winter Street, Suite 3350, Waltham, Massachusetts, 02451 and the address of Dr. Arnold is 1000 Second Avenue, Suite 3700, Seattle, Washington 98104.

(4) Consists of 1,933,040 shares and a warrant to purchase 13,008 shares held of record by Madrona Managing Directors' Fund, LLC, 14,430,125 shares and a warrant to purchase 97,158 shares held of record by Madrona Venture Fund I-A, L.P. and 1,573,138 shares and a warrant to purchase 10,574 shares held of record by Madrona Venture Fund I-B, L.P. Madrona Investment Partners, LLC, as the sole general partner of Madrona Venture Fund I-A, L.P. and Madrona Venture Fund I-B, L.P., may be deemed to beneficially own certain of the shares held of record by Madrona Venture Fund I-A, L.P. and Madrona Venture Fund I-B, L.P. but disclaims beneficial ownership of such shares, in which it does not have an actual pecuniary interest. Mr. Alberg disclaims beneficial ownership of all shares held of record by Madrona Managing Directors' Fund, LLC, Madrona Venture Fund I-A, L.P. and Madrona Venture Fund I-B, L.P., in which he does not have an actual pecuniary interest. By virtue of their relationship as affiliated entities who have overlapping general partners and managing directors, Madrona Managing Directors' Fund, LLC, Madrona Venture Fund I-A, L.P., Madrona Venture Fund I-B, L.P., Madrona Investment Partners, LLC and each managing director may be deemed to share the voting and investment control of the record shares. The address of Madrona Managing Directors' Fund, LLC, Madrona Venture Fund I-A, L.P., Madrona Venture Fund I-B, L.P. and Mr. Alberg is 1000 Second Avenue, Suite 3700, Seattle, Washington 98104.

(5) Consists of 253,372 shares and a warrant to purchase 1,705 shares held of record by Mobius Technology Ventures Advisors Fund VI L.P., 265,971 shares and a warrant to purchase 1,790 shares held of record by Mobius Technology Ventures Side Fund VI L.P., 6,503,707 shares and a warrant to purchase 43,780 shares held of record by Mobius Technology Ventures VI L.P. and 6,975,454 shares and a warrant to purchase 46,956 shares held of record by SOFTBANK U.S. Ventures Fund VI L.P. Mobius VI LLC, as the sole general partner of Mobius Technology Ventures Advisors Fund VI L.P., Mobius Technology Ventures Side Fund VI L.P., Mobius Technology Ventures VI L.P. and SOFTBANK U.S. Ventures Fund VI L.P., may be deemed to beneficially own certain of the shares held of record by Mobius Technology Ventures Advisors Fund VI L.P., Mobius Technology Ventures Side Fund VI L.P., Mobius Technology Ventures VI L.P. and SOFTBANK U.S. Ventures Fund VI L.P. but disclaims beneficial ownership of such shares, in which it does not have an actual pecuniary interest. By virtue of their relationship as affiliated entities who have overlapping general partners and managing directors, Mobius VI LLC, Mobius Technology Ventures Advisors Fund VI L.P., Mobius Technology Ventures Side Fund VI L.P., Mobius Technology Ventures VI L.P., SOFTBANK U.S. Ventures Fund VI L.P. and each managing director may be deemed to share the voting and investment control of the record shares. The address of Mobius Technology Ventures Advisors Fund VI L.P., Mobius Technology Ventures Side Fund VI L.P., Mobius Technology Ventures VI L.P. and SOFTBANK U.S. Ventures Fund VI L.P. is 1050 Walnut Street, Suite 210, Boulder, Colorado 80302.

(6) Consists of 8,740,713 shares and a warrant to purchase 26,968 shares.

(7) Consists of 288,996 shares held by the Emily Daley Colleran Trust of 2004; 288,996 shares held by the Joseph O'Connell Colleran Trust of 2005 and 6,522,008 shares Dr. Colleran has the right to acquire within 60 days of March 31, 2011 through the exercise of options, all of which options are early exercisable.

(8) Includes 100,000 shares held of record by Mr. Fein and 1,085,000 shares Mr. Fein has the right to acquire within 60 days of March 31, 2011 through the exercise of options.

(9) Includes 12,400,000 shares held of record by Dr. Diorio and 1,200,000 shares Dr. Diorio has the right to acquire within 60 days of March 31, 2011 through the exercise of options, all of which options are early exercisable.

(10) Includes 1,782,193 shares Mr. Voit has the right to acquire within 60 days of March 31, 2011 through the exercise of options, all of which options are early exercisable.

(11) Includes 775,000 shares Mr. Quist has the right to acquire within 60 days of March 31, 2011 through the exercise of options, all of which options are early exercisable.

(12) Includes 475,000 shares Dr. Yu has the right to acquire within 60 days of March 31, 2011 through the exercise of options, all of which options are early exercisable.

Description of Capital Stock

DESCRIPTION OF CAPITAL STOCK The following is a summary of the rights of our common stock and convertible preferred stock. This summary is not complete. For more detailed information, please see our certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part.

Upon the closing of this offering and the filing of our certificate of incorporation to be effective upon completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of convertible preferred stock, par value $0.001 per share.

Upon the closing of this offering, all the outstanding shares of our convertible preferred stock will automatically convert into an aggregate of 97,465,284 shares of our common stock. In addition, upon the closing of this offering and after giving effect to the conversion of our convertible preferred stock into common stock, warrants to purchase an aggregate of 1,451,001 shares of common stock will remain outstanding if they are not exercised prior to closing of this offering.

Common Stock

Outstanding Shares

Based on 132,776,294 shares of common stock outstanding as of March 31, 2011, the conversion of convertible preferred stock outstanding as of March 31, 2011 into 97,465,284 shares of common stock upon the completion of this offering, the issuance of shares of common stock in this offering, and no exercise of options or warrants, there will be shares of common stock outstanding upon the closing of this offering. As of March 31, 2011, assuming the conversion of all outstanding convertible preferred stock into common stock upon the closing of this offering, we had approximately 197 record holders of our common stock.

As of March 31, 2011, there were 1,451,001 shares of common stock subject to outstanding warrants, assuming the conversion of all outstanding convertible preferred stock into common stock upon the closing of this offering, and 21,914,388 shares of common stock subject to outstanding options.

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our certificate of incorporation and bylaws to be in effect upon the completion of this offering do not provide for cumulative voting rights. Because of this, the holders of a plurality of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. For more information see the section of this prospectus captioned “Dividend Policy.”

Liquidation

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued pursuant to this offering will be, fully paid and nonassessable.

Preferred Stock

Upon the closing of this offering, our board of directors will have the authority, without further action by the stockholders, to issue up to shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, redemption rights, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing change in our control or other corporate action. Upon closing of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of convertible preferred stock.

Warrants

As of March 31, 2011, warrants exercisable for an aggregate of 1,151,001 shares of our Series E preferred stock at an exercise price of $2.286 per share and a warrant exercisable for 300,000 shares of our common stock at an exercise price of $0.21 per share were outstanding. These warrants exercisable for our Series E preferred stock include: (1) warrants exercisable for 218,723 shares of Series E preferred stock issued in October 2007 in connection with the entry in our loan agreement; (2) warrants exercisable for an additional 24,059 and 17,498 shares of Series E preferred stock issued in June 2010 and February 2011, respectively, in connection with the entry into, and amendments of our credit facility; and (3) warrants exercisable for 890,721 shares of our Series E preferred stock issued in June and July 2010 in connection with our convertible preferred stock financing. The warrant exercisable for 300,000 shares of our common stock was issued in March 2011 in connection with the entry into our mezzanine credit facility.

The warrants issued in June and July 2010 will terminate upon the earlier of the closing of this offering and June 30, 2017. These warrants have a net exercise provision under which their holders may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our stock at the time of exercise of the warrants after deduction of the aggregate exercise price. These warrants contain provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrants in the event of certain stock dividends, stock splits, reorganizations, reclassifications and consolidations.

The warrants issued in October 2007, June 2010, February 2011 and March 2011 will become exercisable for shares of common stock in connection with the conversion of all our outstanding shares of convertible preferred stock into common stock immediately prior to the closing of this offering. These warrants have a net issuance provision under which their holders may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our stock at the time of exercise of the warrants after deduction of the aggregate exercise price. These warrants contain provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrants in the event of certain stock dividends, stock splits, reorganizations, reclassifications and consolidations. The warrant issued in -127- October 2007 will terminate on October 3, 2014 if not exercised earlier, the warrant issued in June 2010 will terminate on June 2, 2020 if not exercised earlier, the warrant issued in February 2011 will terminate on February 2, 2021 if not exercised earlier, and the warrant issued in March 2011 will terminate on March 25, 2021 if not exercised earlier.

Registration Rights

Under our investors' rights agreement, following the closing of this offering, the holders of approximately shares of common stock (including the shares underlying the warrants described in "Shares Eligible for Future Sale—Warrants") or their transferees, have the right to require us to register the offer and sale of their shares, or to include their shares in any registration statement we file, in each case as described below.

Demand Registration Rights

The holders of at least 30% of the shares having registration rights have the right to demand that we use commercially reasonable efforts to file a registration statement for the registration of the offer and sale of at least 20% of the shares having such registration rights. We are only obligated to file up to two registration statements in connection with the exercise of demand registration rights. These registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration under certain circumstances.

Form S-3 Registration Rights

At any time after we are qualified to file a registration statement on Form S-3, the holders of at least 10% of the shares having registration rights have the right to demand that we file a registration statement on Form S-3 so long as the aggregate amount of shares to be offered and sold under such registration statement on Form S-3 is at least $1.0 million. We are not obligated to file any registration statements within 180 days of a registration statement that we propose. These registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration statement on Form S-3 under certain circumstances.

Piggyback Registration Rights

At any time after the closing of this offering, if we propose to register the offer and sale of any of our securities under the Securities Act either for our own account or for the account of other stockholders, a stockholder with registration rights will have the right, subject to certain exceptions, to include their shares of common stock in the registration statement. These registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration statement under certain circumstances, but not below 30% of the total number of shares covered by the registration statement.

Expenses of Registration

We will pay all expenses relating to any demand registrations, Form S-3 registrations and piggyback registrations, other than underwriting discounts and selling commissions.

Termination

The registration rights terminate upon the earliest of (1) the date that is five years after the closing of this offering, (2) as to a given holder of registration rights, when such holder of registration rights can sell all of such holder's registrable securities in a three month-period pursuant to Rule 144 promulgated under the Securities Act, and (3) in a change in control of us.

Anti-Takeover Effects of Delaware and Washington Law and Our Certificate of Incorporation and Bylaws

Delaware Law

We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Washington Business Corporation Act

The laws of Washington, where our principal executive offices are located, impose restrictions on certain transactions between certain foreign corporations and significant stockholders. In particular, the Washington Business Corporation Act, or WBCA, prohibits a "target corporation," with certain exceptions, from engaging in certain "significant business transactions" with a person or group of persons which beneficially owns 10% or more of the voting securities of the target corporation, an "acquiring person," for a period of five years after such acquisition, unless the transaction or acquisition of shares is approved by a majority of the members of the target corporation's board of directors prior to the time of acquisition. Such prohibited transactions may include, among other things:

- any merger or consolidation with, disposition of assets to, or issuance or redemption of stock to or from, the acquiring person;

- any termination of 5% or more of the employees of the target corporation as a result of the acquiring person's acquisition of 10% or more of the shares; and
- allowing the acquiring person to receive any disproportionate benefit as a stockholder.

After the five-year period, a significant business transaction may take place as long as it complies with certain fair price provisions of the statute or is approved at an annual or special meeting of stockholders.

We will be considered a “target corporation” so long as our principal executive office is located in Washington, and (1) a majority of our employees are residents of the state of Washington or we employ more than one thousand residents of the state of Washington; (2) a majority of our tangible assets, measured by market value, are located in the state of Washington or we have more than fifty million dollars’ worth of tangible assets located in the state of Washington; and (3) any one of the following: (a) more than 10% of our stockholders of record are resident in the state of Washington; (b) more than 10% of our shares are owned of record by state residents; or (c) 1,000 or more of our stockholders of record are resident in the state.

If we meet the definition of a target corporation, the WBCA may have the effect of delaying, deferring or preventing a change of control.

Certificate of Incorporation and Bylaws

Provisions of our certificate of incorporation and bylaws to be effective upon completion of this offering may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and bylaws will:

- permit our board of directors to issue up to shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in our control;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of a stockholder’s notice;
- not provide for cumulative voting rights (therefore allowing the holders of a plurality of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and

- provide that stockholders will be permitted to amend our bylaws only upon receiving at least 66 ^{2}/3% of the votes entitled to be cast by holders of all outstanding shares then entitled to vote generally in the election of directors, voting together as a single class.

The amendment of any of these provisions would require approval by the holders of at least 66 ^{2}/3% of our then outstanding common stock, voting as a single class.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is . The transfer agent and registrar’s address is .

Listing

We intend to apply to have our common stock approved for listing on under the symbol “ .”

Shares Eligible For Future Sale

SHARES ELIGIBLE FOR FUTURE SALE Prior to this offering, there has been no public market for our common stock, and although we expect that our common stock will be approved for listing on , we cannot assure you that there will be an active public market for our common stock following this offering. We cannot predict what effect, if any, sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. Future sales of substantial amounts of common stock in the public market, including shares issued upon exercise of outstanding options, or the perception that such sales may occur, however, could adversely affect the market price of our common stock and also could adversely affect our future ability to raise capital through the sale of our common stock or other equity-related securities of ours at times and prices we believe appropriate.

Upon completion of this offering, based on our shares outstanding as of March 31, 2011 and after giving effect to the conversion of all outstanding shares of our preferred stock, shares of our common stock will be outstanding, or shares of common stock if the underwriters exercise their over-allotment option in full. All of the shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act unless held by our “affiliates,” as that term is defined in Rule 144 under the Securities Act. The remaining outstanding shares of our common

stock will be deemed "restricted securities" as that term is defined under Rule 144. Restricted securities may be sold in the public market only if their offer and sale is registered under the Securities Act or if the offer and sale of those securities qualify for an exemption from registration, including exemptions provided by Rules 144 and 701 under the Securities Act, which are summarized below.

As a result of the lock-up agreements and market stand-off provisions described below and the provisions of Rules 144 or 701, and assuming no extension of the lock-up period and no exercise of the underwriters' over-allotment option, the shares of our common stock that will be deemed "restricted securities" will be available for sale in the public market following the completion of this offering as follows:

- shares will be eligible for sale on the date of this prospectus; and
- shares will be eligible for sale upon expiration of the lock-up agreements and market stand-off provisions described below, beginning more than 180 days after the date of this prospectus.

We may issue shares of our common stock from time to time for a variety of corporate purposes, including in capital-raising activities through future public offerings or private placements, in connection with exercise of stock options, vesting of restricted stock units and other issuances relating to our employee benefit plans and as consideration for future acquisitions, investments or other purposes. The number of shares of our common stock that we may issue may be significant, depending on the events surrounding such issuances. In some cases, the shares we issue may be freely tradable without restriction or further registration under the Securities Act; in other cases, we may grant registration rights covering the shares issued in connection with these issuances, in which case the holders of the common stock will have the right, under certain circumstances, to cause us to register any resale of such shares to the public.

Lock-up Agreements

We, our directors and officers and the other holders of our equity securities have agreed, subject to certain exceptions, not to offer, sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 180 days after the date of this prospectus without first obtaining the written consent of Morgan Stanley & Co. Incorporated and J.P. Morgan Securities LLC on behalf of the underwriters, subject to specified exceptions and a possible extension of up to 34 additional days beyond the end of such 180-day period, after the date of this prospectus. These agreements are described below under the section captioned "Underwriters."

Morgan Stanley & Co. Incorporated and J.P. Morgan Securities LLC have advised us that they have no present intent or arrangement to release any shares subject to a lock-up, and will consider the release of any lock-up on a case-by-case basis. Upon a request to release any shares subject to a lock-up, Morgan Stanley & Co. Incorporated and J.P. Morgan Securities LLC would consider the particular circumstances surrounding the request, including, but not limited to, the length of time before the lock-up expires, the number of shares requested to be released, reasons for the request, the possible impact on the market or our common stock and whether the holder of our shares requesting the release is an officer, director or other affiliate of ours.

Rule 144

In general, under Rule 144, beginning 90 days after the date of this prospectus, a person who is not our affiliate and has not been our affiliate at any time during the preceding three months will be entitled to sell any shares of our common stock that such person has beneficially owned for at least six months, including the holding period of any prior owner other than one of our affiliates, without regard to the registration requirements of the Securities Act. Sales of our common stock by any such person would be subject to the availability of current public information about us if the shares to be sold were beneficially owned by such person for less than one year.

In addition, under Rule 144, a person may sell shares of our common stock acquired from us immediately upon the completion of this offering, without regard to the registration requirements of the Securities Act or the availability of public information about us, if:

- the person is not our affiliate and has not been our affiliate at any time during the preceding three months; and
- the person has beneficially owned the shares to be sold for at least one year, including the holding period of any prior owner other than one of our affiliates.

Beginning 90 days after the date of this prospectus, our affiliates who have beneficially owned shares of our common stock for at least six months, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; and
- the average weekly trading volume in our common stock on during the four calendar weeks preceding the date of filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us. To the extent that shares were acquired from one of our affiliates, a person's holding period for the purpose of effecting a sale under Rule 144 would commence on the date of transfer from the affiliate.

Rule 701

In general, under Rule 701 a person who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been one of our affiliates during the immediately preceding 90 days may sell these shares in reliance upon Rule 144, but without being required to comply with the notice, manner of sale or public information requirements or volume limitation provisions of Rule 144. Rule 701 also permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required to wait until 90 days after the date of this prospectus before selling such shares pursuant to Rule 701.

As of March 31, 2011, 12,076,696 shares of our outstanding common stock had been issued in reliance on Rule 701 as a result of exercises of stock options. All of these shares, however, are subject to lock-up agreements or market stand-off provisions as discussed above, and, as a result, these shares will only become eligible for sale at the earlier of the expiration of the lock-up period or upon obtaining the consent of Morgan Stanley & Co. Incorporated and J.P. Morgan Securities LLC on behalf of the underwriters to release all or any portion of these shares from the lock-up agreements.

Stock Options

As of March 31, 2011, options to purchase an aggregate 21,914,388 shares of our common stock were outstanding. We intend to file one or more registration statements on Form S-8 under the Securities Act to register the offer and sale of all shares of our common stock subject to outstanding stock options and all shares issued or issuable under our stock plans. We expect to file the registration statement covering these shares after the date of this prospectus, which will permit the resale of such shares by persons who are non-affiliates of ours in the public market without restriction under the Securities Act, subject, with respect to certain of the shares, to the provisions of the lock-up agreements and market stand-off provisions described above.

Warrants

Upon completion of this offering, warrants entitling holders to purchase an aggregate of 260,280 shares of our common stock at an exercise price of $2.286 per share and 300,000 shares of our common stock at an exercise price of $0.21 per share (subject to adjustment as provided in the warrants) will remain outstanding. See “Description of Capital Stock—Warrants” for additional information. Such shares issued upon exercise of the warrants may be able to be sold after the expiration of the lock-up period described above subject the requirements of Rule 144 described above.

Registration Rights

Upon completion of this offering, the holders of approximately shares of our common stock (including the shares underlying the warrants described in “—Warrants” above), will be eligible to exercise certain rights to cause us to register their shares for resale under the Securities Act, subject to various conditions and limitations. These registration rights are described under the caption “Description of Capital Stock—Registration Rights.” Upon the effectiveness of a registration statement covering these shares, the shares would become freely tradable, and a large number of shares may be sold into the public market. If that occurs, the market price of our common stock could be adversely affected.

Material U.S. Tax Consequences for Non-U.S. Holders of Common Stock

MATERIAL U.S. TAX CONSEQUENCES FOR

Non-u.s. Holders of Common Stock

The following is a summary of the material U.S. federal income and estate tax consequences to non-U.S. holders of the ownership and disposition of our common stock, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the U.S. Internal Revenue Code, U.S. Treasury Regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof, all of which are subject to change, possibly with retroactive effect, which could result in U.S. federal income and estate tax consequences different than those summarized below. We have not sought a ruling from the Internal Revenue Service, or IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary does not address the tax considerations arising under the laws of any state, local or other jurisdiction and is limited to investors who will hold our common stock as a capital asset for tax purposes. This summary does not address all tax considerations that may be important to a particular investor in light of the investor’s circumstances or to certain categories of non-U.S. investors that may be subject to special rules, such as:

- banks, insurance companies or other financial institutions (except to the extent specifically set forth below);
- tax-exempt organizations;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;

- persons that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction; or
- persons deemed to sell our common stock under the constructive sale provisions of the Internal Revenue Code.

In addition, if a partnership (including any entity classified as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock and partners in such partnerships should consult their tax advisors.

The following discussion of material U.S. federal income and estate tax consequences to non-U.S. holders is for general information only. You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any state, local, non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are a beneficial owner of our common stock other than a (1) U.S. citizen or U.S. resident alien, (2) a corporation or other entity taxable as a corporation for U.S. federal income tax purposes, that was created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (3) an estate whose income is subject to U.S. federal income taxation regardless of its source, (4) a trust that either is subject to the supervision of a court within the United States and has one or more U.S. persons with authority to control all of its substantial decisions, or has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person or (5) a partnership.

Distributions on Common Stock

If we make distributions on our common stock, these distributions generally will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent these distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock.

Any dividend paid to you generally will be subject to withholding either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate. If you are eligible for a reduced rate of withholding pursuant to an income tax treaty, you may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS. If you hold our common stock through a financial institution or other agent acting on your behalf, you will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, attributable to a permanent establishment maintained by you in the United States) are exempt from withholding. In order to claim this exemption, you must provide us with an IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying exemption. Such effectively connected dividends, although not subject to withholding, are taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons, net of certain deductions and credits. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

Gain on Disposition of Common Stock

Subject to the discussion below regarding recent legislative withholding developments, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, the gain is attributable to a permanent establishment maintained by you in the U.S.);
- you are an individual who is present in the U.S. for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or
- our common stock constitutes a U.S. real property interest by reason of our status as a "United States real property holding corporation", or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition and your holding period for our common stock.

If you are described in the first bullet above, you will generally be required to pay tax on the net gain derived from the sale at the same graduated U.S. federal income tax rates applicable to U.S. persons (net of certain deductions and credits), and if you are a corporate non-U.S. holder, you may be subject to branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. If you are described in the second bullet above, you will

be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by U.S. source capital losses (even though you are not considered a resident of the United States).

We believe that we are not currently and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, our common stock will be treated as a U.S. real property interest only if you actually or constructively hold more than 5% of such regularly traded common stock at any time during the applicable period described above.

Federal Estate Tax

Our common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death generally will be includable in the decedent's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report is sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends on or the gross proceeds of disposition of our common stock may be subject to additional information reporting and backup withholding at a current rate of 28% unless you establish an exemption, for example by properly certifying your non-U.S. status on a Form W-8BEN or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax. Any amounts withheld from a payment to you under the backup withholding rules will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund, provided that the required information or returns are furnished to the IRS in a timely manner.

Recent Legislative Developments

Recent legislation generally imposes withholding at a rate of 30% on payments to certain foreign entities (including financial institutions, which include hedge funds, private equity funds, mutual funds, securitization vehicles and other investment vehicles regardless of size), after December 31, 2012, of dividends on and the gross proceeds of dispositions of U.S. common stock, unless various U.S. information reporting and due diligence requirements (that are different from, and in addition to, the beneficial owner certification requirements described above) have been satisfied that generally relate to ownership by U.S. persons of interests in or accounts with those entities. You should consult your tax advisor regarding the possible implications of this legislation on your investment in our common stock.

Underwriters

UNDERWRITERS Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated and J.P. Morgan Securities LLC are acting as representatives, have severally agreed to purchase, and we and the selling stockholders have agreed to sell to them, severally, the number of shares indicated below:

Name	Number of Shares
Morgan Stanley & Co. Incorporated	
J.P. Morgan Securities LLC	
Needham & Company, LLC	
Pacific Crest Securities LLC	
Raymond James & Associates, Inc.	
Total	

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option, described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased, or, in the case of a default with respect to the shares covered by the underwriters' over-allotment described below, the underwriting agreement may be terminated.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of $ a share under the public offering price. Any underwriter may allow, and such dealers may reallow, a concession not in excess of $ a share to other underwriters or to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us and the selling stockholders. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares of common stock from .

	Share	Total No Exercise	Total Full Exercise
Public offering price		$$	$
Underwriting discounts and commissions to be paid by:			
Us			
The selling stockholders			
Proceeds, before expenses, to us			
Proceeds, before expenses, to selling stockholders			

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $ million.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

We have applied to list our common stock on the under the trading symbol " ."

We and all directors and officers and the holders of our outstanding stock, stock options and warrants have agreed that, without the prior written consent of the representatives on behalf of the underwriters, and subject to certain exceptions, we and they will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock; or
- make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

In addition, we and the holders of our outstanding stock, stock options and warrants have agreed that, without the prior written consent of the representatives on behalf of the underwriters, and subject to certain exceptions, we and they will not, during the period ending 180 days after the date of this prospectus, file any registration statement with the SEC relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock. The restrictions described in this paragraph do not apply to:

- the sale of shares to the underwriters;
- transactions by a security holder relating to shares of common stock or other securities acquired in open market transactions after the completion of the offering, provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;
- the transfer by a security holder of shares of common stock or any securities convertible into or exercisable or exchangeable for common stock (1) to an immediate family member of a security holder or to a trust formed for the benefit of such an immediate family member, (2) by bona fide gift, will or

intestacy, (3) if the security holder is a corporation, partnership or other business entity (a) to another corporation, partnership or other business entity that is an affiliate of such security holder or (b) as part of a disposition, transfer or distribution without consideration by the security holder to its equity holders or (4) if the security holder is a trust, to a trustor or beneficiary of the trust, provided that in each case, each transferee, donee or distributee shall sign and

deliver a lock-up agreement and no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of common stock, shall be required or shall be voluntarily made during the lock-up period;

- the transfer by a security holder of shares of common stock or any securities convertible into common stock by a security holder to us upon a vesting event of our securities or upon the exercise of options or warrants to purchase our securities, in each case on a "cashless" or "net exercise" basis or to cover tax withholding obligations of the undersigned in connection with such vesting or exercise, provided no filing under Section 16(a) of the Exchange Act reporting a disposition of shares of common stock shall be required or shall be voluntarily made in connection with such vesting or exercise;

- the establishment by a security holder of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that such plan does not provide for the transfer of common stock during the lock-up period and no public announcement or filing under the Exchange Act regarding the establishment of such plan shall be required of or voluntarily made by or on behalf of the security holder or us;

- the conversion of our outstanding convertible preferred stock into shares of our common stock, provided that such shares of common stock remain subject to the terms of the lock-up agreement;

- the transfer by a security holder of shares of our common stock or any security convertible into or exercisable or exchangeable for common stock to us, pursuant to agreements under which we have the option to repurchase such shares or a right of first refusal with respect to transfers of such shares;

- the transfer by a security holder of shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock that occurs by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement;

- the transfer by a security holder of shares of our common stock or any security convertible into or exercisable or exchangeable for common stock pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of the common stock involving a change of control of us, provided that if the tender offer, merger, consolidation or other such transaction is not completed, the common stock owned by the security holder shall remain subject to the restrictions contained in this agreement; and

- the exercise of a security holder of any right with respect to, or the taking of any other action in preparation for, a registration by us of shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock, provided that no transfer of the security holder's common stock registered pursuant to the exercise of such rights under this item shall occur, and no registration statement shall be filed, during the lock-up period.

The 180-day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180-day restricted period we issue an earnings release or a material news event relating to us occurs, or

- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day period,

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

In order to facilitate the offering of our common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may over-allot in connection with the offering, creating a short position in the common stock for their own accounts. In addition, to cover over-allotments or to stabilize the price of the common stock, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. Finally, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the common stock in the offering, if the syndicate repurchases previously distributed common stock in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We, the selling stockholders and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of these liabilities.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make internet distributions on the same basis as other allocations.

The underwriters may from time to time in the future provide us with investment banking, financial advisory or other services for which they may receive customary compensation.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives. Among the factors to be considered in determining the initial public offering price will be the future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours. The estimated initial public offering price range set forth on the cover page of this preliminary prospectus is subject to change as a result of market conditions and other factors. We cannot assure you that the prices at which the shares will sell in the public market after this offering will not be lower than the initial public offering price or that an active trading market in our common stock will develop and continue after this offering.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or -141- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

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Legal Matters

LEGAL MATTERS The validity of the shares of common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Seattle, Washington. Davis Polk & Wardwell LLP, Menlo Park, California is representing the underwriters. Investment funds associated with Wilson Sonsini Goodrich & Rosati, Professional Corporation hold 59,998 shares of our common stock, which represents less than 1% of our outstanding shares of common stock.

Experts

EXPERTS

The financial statements as of December 31, 2010 and 2009 and for each of the three years in the period ended December 31, 2010 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Where You Can Find Additional Information

WHERE YOU CAN FIND ADDITIONAL INFORMATION We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of our common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some items of which are contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or document referred to are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement is this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit.

You may read and copy the registration statement, including the exhibits and schedules thereto, at the Public Reference Section of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov. We also maintain a website at www.impinj.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

As a result of this offering, we will become subject to the information and reporting requirements of the Securities Exchange Act of 1934 and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above.

Impinj, Inc.

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Index to Financial Statements

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Report of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm To the Board of Directors and Stockholders of Impinj, Inc.

In our opinion, the accompanying balance sheets and the related statements of operations, of changes in redeemable convertible preferred stock, of changes in stockholders' deficit and of cash flows present fairly, in all material respects, the financial position of Impinj, Inc. at December 31, 2010 and 2009, and the results of its operations and cash flows for each of the three years in the period ended December 31, 2010 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of Impinj, Inc.'s management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP Seattle, Washington April 21, 2011 **Impinj, Inc.**

Balance Sheets

Balance Sheets

(In thousands, except per share amounts)

	December 31,		March 31,	Pro Forma March 31,
	2009	2010	2011	2011
			(Unaudited)	
Assets				
Cash and cash equivalents	$6,415	$5,543	$11,752	$
Short-term marketable securities	4,905	1,200	300	
Accounts receivable, net of allowances of $75, $506 and $618, respectively	1,694	8,102	9,501	
Inventory	1,917	7,912	14,392	
Prepaid expenses and other current assets	228	260	867	
Total current assets	15,159	23,017	36,812	
Property and equipment, net of accumulated depreciation of $5,229, $6,224 and $6,467, respectively	1,493	1,262	1,202	
Restricted cash	749	400	300	
Other non-current assets	—	—	112	

Goodwill	3,881	3,881	3,881	
Other intangible assets, net	1,216	894	814	
Total assets	22,498	29,454	43,121	
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit				
Current liabilities				
Accounts payable	762	5,235	4,607	4,607
Accrued compensation and employee related benefits	1,271	1,930	2,193	2,193
Accrued liabilities	654	1,450	1,443	1,443
Current portion of long-term debt	1,600	722	910	910
Subordinated convertible promissory notes – related parties	–	6,026	6,279	–
Current portion of capital lease obligations	193	177	172	172
Current portion of deferred rent	98	31	31	31
Current portion of deferred revenue	597	840	2,398	2,398
Total current liabilities	5,175	16,411	18,033	11,754
Long-term debt, net of current portion	133	5,278	18,438	18,438
Capital lease obligations, net of current portion	200	316	277	277
Long-term liabilities—other	138	228	252	252
Warrant liability	65	745	880	–
Deferred rent, net of current portion	194	702	776	776
Deferred revenue, net of current portion	157	119	78	78
Total liabilities	6,062	23,799	38,734	31,575
Commitments and contingencies (Note 12)				
Redeemable Convertible preferred stock, $0.001 par value				
Series A: authorized, issued and outstanding, actual 4,000,000 shares (aggregate liquidation value of $600 at December 31, 2010); issued and outstanding, pro forma zero shares	600	600	600	–
Series B: authorized, issued and outstanding, actual 18,134,992 shares (aggregate liquidation value of $15,113 at December 31, 2010); issued and outstanding, pro forma zero shares	15,113	15,113	15,113	–
Series C: authorized, issued and outstanding, actual 43,382,413 shares (aggregate liquidation value of $55,093 at December 31, 2010); issued and outstanding, pro forma zero shares	52,562	55,093	55,726	–
Series D: authorized, issued and outstanding, actual 13,596,575 shares (aggregate liquidation value of $35,930 at December 31, 2010); issued and outstanding, pro forma zero shares	34,075	35,930	36,393	–
Series E: authorized, 24,000,000 shares; issued and outstanding, actual 18,351,304 shares (aggregate liquidation value of $53,037 at December 31, 2010); issued and outstanding, pro forma zero shares	47,252	51,424	52,365	–
	149,602	158,160	160,197	–
Stockholders' deficit				
Common stock, $0.001 par value—authorized, 160,000,000 shares; issued and outstanding, actual 33,837,732, 34,882,656 and 35,311,010 shares as of December 31, 2009, 2010 and March 31, 2011, respectively; issued and outstanding pro forma, 132,776,294 shares	34	35	35	132
Additional paid-in capital	–	–	–	160,980
Accumulated deficit	(133,188)	(152,525)	(155,830)	(155,830)
Accumulated other comprehensive (loss)	(12)	(15)	(15)	(15)
Total stockholders' deficit	(133,166)	(152,505)	(155,810)	5,267
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$22,498	$29,454	$43,121	$36,842

The accompanying notes are an integral part of these financial statements.

Impinj, Inc.

Statements of Operations

Statements of Operations

(In thousands, except per share amounts)

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
Revenue					
Product revenue	$15,457	$10,305	$29,221	$4,640	$11,397
Development, service and licensing revenue	9,586	10,511	2,576	500	868
Total revenue	25,043	20,816	31,797	5,140	12,265
Cost of revenue					
Cost of product revenue	10,791	6,782	17,008	2,455	6,325
Cost of development, service and licensing revenue	2,006	2,219	603	111	472
Total cost of revenue	12,797	9,001	17,611	2,566	6,797
Gross profit	12,246	11,815	14,186	2,574	5,468
Operating expenses					
Research and development	12,257	9,492	10,662	2,389	2,781
Selling and marketing	7,375	7,320	8,256	1,957	2,375
General and administrative	6,711	5,271	5,585	1,241	1,594
Total operating expenses	26,343	22,083	24,503	5,587	6,750
Loss from operations	(14,097)	(10,268)	(10,317)	(3,013)	(1,282)
Interest income (expense) and other, net:					
Interest income	723	234	8	3	1
Interest expense	(514)	(524)	(793)	(55)	(382)
Other income (expense), net	107	357	(193)	(3)	(114)
Total interest income (expense) and other, net	316	67	(978)	(55)	(495)
Loss before income tax (expense) benefit	(13,781)	(10,201)	(11,295)	(3,068)	(1,777)
Income tax (expense) benefit	644	50	(90)	(19)	(24)
Loss from continuing operations	(13,137)	(10,151)	(11,385)	(3,087)	(1,801)
Income from discontinued operations, net of tax	1,275	291	—	—	—
Net loss	$(11,862)	$(9,860)	$(11,385)	$(3,087)	$(1,801)
Net loss attributable to common stockholders	$(19,481)	$(18,419)	$(19,943)	$(5,227)	$(3,838)
Basic and diluted loss per common share:					
Loss from continuing operations	$(0.70)	$(0.56)	$(0.58)	$(0.15)	$(0.11)
Income from discontinued operations	0.06	0.01	—	—	—
Net loss	$(0.64)	$(0.55)	$(0.58)	$(0.15)	$(0.11)
Weighted average number of shares used in computation of per share amounts	30,509	33,527	34,127	33,723	34,824
Pro forma net loss per common share, basic and diluted (unaudited)			$(0.09)		$(0.01)
Weighted average number of shares used in computation of pro forma per share amounts (unaudited)			131,592		132,289

The accompanying notes are an integral part of these financial statements.

Impinj, Inc.

Statements of Changes in Redeemable Convertible Preferred Stock

Statements of Changes in Redeemable Convertible Preferred Stock

(In thousands, except per share amounts)

	Redeemable Convertible Preferred Stock									
	Series A		Series B		Series C		Series D		Series E	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount
Balances at December 31, 2007	4,000,000	$600	18,134,992	$15,113	43,382,413	$47,501	13,596,575	$30,365	14,345,144	$33,9
Issuance of Series E preferred stock	–	–	–	–	–	–	–	–	4,006,160	5,861
Accretion of preferred stock	–	–	–	–	–	2,531	–	1,855	–	3,233
Balances at December 31, 2008	4,000,000	600	18,134,992	15,113	43,382,413	50,032	13,596,575	32,220	18,351,304	43,07
Accretion of preferred stock	–	–	–	–	–	2,530	–	1,855	–	4,174
Balances at December 31, 2009	4,000,000	600	18,134,992	15,113	43,382,413	52,562	13,596,575	34,075	18,351,304	47,25
Accretion of preferred stock	–	–	–	–	–	2,531	–	1,855	–	4,172
Balances at December 31, 2010	4,000,000	600	18,134,992	15,113	43,382,413	55,093	13,596,575	35,930	18,351,304	51,42
Accretion of preferred stock (Unaudited)	–	–	–	–	–	633	–	463	–	941
Balances at March 31, 2011 (Unaudited)	4,000,000	$600	18,134,992	$15,113	43,382,413	$55,726	13,596,575	$36,393	18,351,304	$52,3

The accompanying notes are an integral part of these financial statements.

Impinj, Inc.

Statements of Changes in Stockholders' Deficit

Statements of Changes in Stockholders' Deficit

(In thousands, except per share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Deficit	Total ComprehensiveIncome (Loss)	
	Shares	Amount						
Balances at December 31, 2007	28,059,793	$28	$–	$(96,815)	$12	$(96,775)		$
Common stock issued in connection with early exercises of stock options	171,690	–	–	–	–	–		
Common stock issued in connection with all other exercises of stock options	826,343	–	118	–	–	118		
Common stock issued in connection with business acquisition	4,734,553	5	657			662		
Vesting of early-exercised stock options	–	–	47	–	–	47		
Common stock repurchased	(178,698)	–	–	–	–	–		

Stock-based compensation	—	—	347	—	—	347	
Comprehensive income							
Net loss	—	—	—	(11,862)	—	(11,862)	(11,862)
Accretion of preferred stock	—	—	(1,169)	(6,450)	—	(7,619)	(7,619)
Change in unrealized investment gain	—	—	—	—	90	90	90
Cumulative foreign exchange translation adjustment	—	—	—	—	(3)	(3)	(3)
Balances at December 31, 2008	33,613,681	33	—	(115,127)	99	(114,995)	(19,394)
Common stock issued in connection with early exercises of stock options	83,127	—	—	—	—	—	
Common stock issued in connection with all other exercises of stock options	140,924	1	18	—	—	19	
Vesting of early-exercised stock options	—	—	27	—	—	27	
Stock-based compensation	—	—	313	—	—	313	
Comprehensive income							
Net loss	—	—	—	(9,860)	—	(9,860)	(9,860)
Accretion of preferred stock	—	—	(358)	(8,201)	—	(8,559)	(8,559)
Change in unrealized investment gain	—	—	—	—	(102)	(102)	(102)
Cumulative foreign exchange translation adjustment	—	—	—	—	(9)	(9)	(9)
Balances at December 31, 2009	33,837,732	34	—	(133,188)	(12)	(133,166)	(18,530)
Common stock issued in connection with early exercises of stock options	249,636	—	—	—	—	—	
Common stock issued in connection with all other exercises of stock options	810,365	1	88	—	—	89	
Vesting of early-exercised stock options	—	—	19	—	—	19	
Common stock repurchased	(15,077)	—	—	—	—	—	
Stock-based compensation	—	—	499	—	—	499	
Comprehensive income (loss):							
Net loss	—	—	—	(11,385)	—	(11,385)	(11,385)
Accretion of preferred stock	—	—	(606)	(7,952)	—	(8,558)	(8,558)
Change in unrealized investment gain	—	—	—	—	1	1	1
Cumulative foreign exchange translation adjustment	—	—	—	—	(4)	(4)	(4)
Balances at December 31, 2010	34,882,656	$35	—	$(152,525)	$(15)	(152,505)	(19,946)
Common stock issued in connection with early exercises of stock options (Unaudited)	201,688	—	—	—	—	—	
Common stock issued in connection with all other exercises of stock options (Unaudited)	226,666	—	22	—	—	22	
Common stock warrant issued in connection with credit facility (Unaudited)			270			270	
Vesting of early-exercised stock options (Unaudited)	—	—	10	—	—	10	
Stock-based compensation (Unaudited)	—	—	231	—	—	231	
Comprehensive income (loss)	—	—	—	—	—	—	
Net loss (Unaudited)	—	—	—	(1,801)	—	(1,801)	(1,801)
Accretion of preferred stock (Unaudited)	—	—	(533)	(1,504)	—	(2,037)	(2,037)
Balances at March 31, 2011 (Unaudited)	35,311,010	$35	$—	$(155,830)	$(15)	$(155,810)	$(3,838)

The accompanying notes are an integral part of these financial statements.

Impinj, Inc.

Statements of Cash Flows

Statements of Cash Flows

(In thousands)

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
Operating activities					
Net loss	$(11,862)	$(9,860)	$(11,385)	$(3,087)	$(1,801)
Adjustment to reconcile net loss to net cash used in operating activities:					
Gain from discontinued operations	(3,634)	(450)	—	—	—
Depreciation	1,105	1,179	995	257	243
Amortization of intangible assets	161	323	322	81	80
Write-off of acquired in-process technology	650	—	—	—	
Loss (gain) on disposal of assets	33	(2)	—	—	(2)
Amortization of discounts on short-term marketable securities	(243)	52	15	13	—
Amortization of debt issuance costs	189	141	326	—	151
Accrued interest on subordinated convertible promissory notes	—	—	276	—	135
Revaluation of warrant liability	(45)	(174)	193	3	116
Provision for doubtful accounts receivable	112	14	28	—	
Provision for inventory write-downs	894	—	592	14	109
Provision for sales returns	—	—	289	—	500
Stock-based compensation	347	313	499	97	231
Changes in operating assets and liabilities					
Accounts receivable	(436)	1,327	(6,725)	(1,670)	(1,899)
Inventory	(226)	101	(6,587)	(801)	(6,589)
Prepaid expenses and other current assets	254	103	(107)	(18)	(733)
Deferred revenue	(1,768)	(667)	205	695	1,517
Deferred rent	(179)	(224)	441	106	74
Accounts payable	653	(283)	5,640	219	(627)
Accrued liabilities	(1,579)	(746)	382	901	259
Discontinued operations	(1,116)	—	—	—	—
Net cash used in operating activities	(16,690)	(8,853)	(14,601)	(3,190)	(8,236)
Investing activities					
Cash used for business purchase	(254)	—	—	—	—
Purchases of property and equipment	(308)	(100)	(468)	(13)	(181)
Restricted cash	(141)	672	349	—	100
Purchases of marketable securities	(27,594)	(9,707)	(2,454)	(1,255)	—
Proceeds from sale of business unit	5,200	—	—	—	—
Proceeds from sale of property and equipment	19	2	—	—	—
Proceeds from maturities of marketable securities	37,589	20,985	6,145	3,645	900
Net cash provided by investing activities	14,511	11,852	3,572	2,377	819

Financing activities					
Payments on capital lease financing obligations	(242)	(186)	(196)	(49)	(44)
Payments on working capital facility	—	(267)	(19,733)	(400)	(11,717)
Proceeds from working capital facility	—	—	24,000	—	15,335
Proceeds from subordinated convertible promissory notes – related parties	—	—	5,986	—	—
Proceeds from mezzanine credit facility	—	—	—	—	10,000
Proceeds from issuance of common stock upon exercise of employee stock options	167	26	105	4	52
Payments to repurchase stock from employees upon termination	(42)	—	(1)	—	—
Net cash (used in) provided by financing activities	(117)	(427)	10,161	(445)	13,626
Effect of exchange rates on cash	(3)	(9)	(4)	(2)	—
Net (decrease) increase in cash and cash equivalents	(2,299)	2,563	(872)	(1,260)	6,209
Cash and cash equivalents					
Beginning of period	6,151	3,852	6,415	6,415	5,543
End of period	$3,852	$6,415	$5,543	$5,155	$11,752
Supplemental disclosure of cash flow information					
Cash paid for interest	$312	$305	$325	$55	$99
Supplemental disclosure of noncash financing and investing activities					
Accretion on preferred shares	7,619	8,559	8,558	2,140	2,037
Warrants issued in connection with convertible debt issuance	—	—	470	—	—
Warrants issued in connection with working capital facility	—	—	17	—	19
Warrants issued in connection with mezzanine credit facility	—	—	—	—	270
Vesting of early-exercised stock options	47	27	19	5	10
Additions to property and equipment through capital leases	288	—	296	—	—
Preferred stock issued in connection with business acquisition	5,861	—	—	—	—
Common stock issued in connection with business acquisition	662	—	—	—	—

The accompanying notes are an integral part of these financial statements.

Impinj, Inc.

Notes to Financial Statements

Notes to Financial Statements

1. Description of Business

Impinj, Inc., a Delaware corporation is headquartered in Seattle, Washington. We are a provider of ultra high frequency, or UHF, radio frequency identification, or RFID, solutions for identifying, locating and authenticating items. We derive revenue from the sale of our Monza tag integrated circuits, or ICs, Indy reader ICs and Speedway readers as well as from development engagements. RFID systems built on our GrandPrix platform deliver real-time information about tagged items, thereby enabling applications and analytics designed to improve business decisions and enhance consumer experience. We use third-party foundries and subcontractors to produce our ICs and contract manufacturers to assemble our readers. We seek to protect our proprietary technologies by seeking patents, retaining trade secrets and defending, enforcing and using our intellectual property rights where appropriate.

We have incurred losses and negative cash flows from operations since inception. We expect operating losses and negative cash flows to continue for the near future as additional costs and expenses are incurred for working capital, product development, sales and marketing and other promotional activities, increases to our sales force, and investments in our administrative infrastructure. Failure to generate sufficient revenue or raise additional capital could have a material adverse effect on our ability to meet our intended business objectives.

At December 31, 2010, we have approximately $144.5 million of Series C, Series D and Series E redeemable convertible preferred stock that becomes subject to redemption at the option of holders of a majority of each Series of preferred stock in February 2011. In addition, at December 31, 2010 we had approximately $6.0 million of subordinated convertible notes due to holders of our Series E preferred stock that have a scheduled maturity date of June 30, 2011.

In connection with the issuance of the subordinated convertible notes, holders of a majority of each of the Series C, Series D and Series E preferred stock agreed not to pursue the repayment of any indebtedness under the subordinated convertible notes or any other instrument or writing evidencing our indebtedness to them while there are outstanding borrowings under the Credit Facility or mezzanine credit facility. See also Note 8, Note 9 and Note 10.

Unaudited Pro Forma Information

The unaudited pro forma information has been prepared assuming that upon the completion of an initial public offering (1) all of our preferred stock outstanding will automatically convert into shares of common stock, (2) our preferred stock warrants will be converted to warrants to purchase common stock and (3) our subordinated convertible notes and related interest will be repaid at a premium.

The March 31, 2011 unaudited pro forma balance sheet reflects the conversion of all 97,465,284 outstanding shares of preferred stock into the same number of shares of common stock, the reclassification of the preferred stock warrant liability to additional paid-in capital and to repayment of the subordinated convertible notes.

The unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2010 and the three months ended March 31, 2011 has been prepared assuming the conversion of preferred stock (using the if-converted method).

2. Summary of Significant Accounting Policies

Accounting Principles

The financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates and judgments that we rely upon in preparing our financial statements include revenue recognition, collectability of accounts receivable, inventory obsolescence, depreciable lives for fixed assets, the determination of fair value of stock awards, estimated costs to complete development contracts, warranty obligations, accrued liabilities and deferred income. Actual results could differ from our estimates.

Unaudited Interim Financial Information

The financial statements as of March 31, 2011, and for the three months ended March 31, 2010 and March 31, 2011 are unaudited. All disclosures as of March 31, 2011 and for the three months ended March 31, 2010 and March 31, 2011, presented in the notes to the financial statements are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all normal recurring adjustments necessary for a fair statement of our financial position as of March 31, 2011 and results of operations and cash flows for the three months ended March 31, 2010 and March 31, 2011. The results of operations for the three months ended March 31, 2011 are not necessarily indicative of the results to be expected for the year ended December 31, 2011 or for other interim periods or for future years.

Concentrations of Risks

Financial instruments that subject us to concentrations of credit risk consist primarily of cash equivalents, short term marketable securities and accounts receivable. These instruments are generally unsecured and uninsured. We extend credit to customers based upon an evaluation of the customer's financial condition and generally collateral is not required. Total revenue and accounts receivable concentration is presented in the following tables:

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
Revenue					
Customer A	50%	40%	2%	3%	5%
Customer B	10	10	22	20	21
Customer C	10	6	14	11	10
Customer D	—	2	6	13	3
	70%	58%	44%	47%	39%

	Year Ended December 31,		Three Months Ended March 31,	
	2009	2010	2010	2011
Accounts Receivable				
Customer B	19%	22%	23%	23%
Customer C	15	19	10	9
	34%	41%	33%	32%

We outsource the manufacturing and production of our hardware products to a limited number of suppliers. Although there are a limited number of manufacturers for hardware products, we believe that other suppliers could provide similar products on comparable terms. A change in suppliers, however, could cause a delay in manufacturing and a possible loss of sales, which would adversely affect our operating results.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash deposits and investments in money market funds with maturities of 90 days or less when purchased. We invest our cash and cash equivalents in deposits with one major financial institution, and our balances consistently exceed federally insured limits. We have not experienced any losses on our cash and cash equivalents.

Investments

Investments consist of U.S. government agency debt securities and commercial paper with maturities ranging from one to five months. Investments with original maturities greater than 90 days when purchased are classified as short-term investments. We have classified these investments as available-for-sale. Available-for-sale securities are reported at fair value with related unrealized gains and losses, which are deemed to be temporary in nature, included as a separate component of accumulated other comprehensive income (loss).

Realized gains and losses and declines in value of securities determined to be other than temporary are included in interest income (expense) in the statement of operations. The cost of investments for purposes of computing realized and unrealized gains and losses are based on the specific identification method.

The fair value of debt securities is adjusted for amortization of premiums and accretion of discounts and interest and dividends, if any. These amounts are included in the statement of operations as interest income.

Fair Value of Financial Instruments

At December 31, 2010 and 2009, the carrying value of short-term financial instruments including cash equivalents, accounts receivable, accounts payable, accrued compensation and employee related benefits and accrued liabilities approximate fair value due to the short-term maturities of these instruments. We did not hold any financial instruments with a carrying value materially different from their fair value, based on quoted market prices or rates for the same or similar instruments or internal valuation models. We believe the fair value of our long-term capital lease obligations and our long-term debt approximates their carrying value based on the borrowing rates currently available to us for loans with similar terms.

Fair Value Measurement

We record short-term investments and preferred stock warrant liabilities at fair value. We establish fair value of our assets and liabilities using the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price) and a fair value hierarchy based on the inputs used to measure fair value. The three levels of the fair value hierarchy are as follows:

Level 1—Quoted prices in active markets for identical instruments.

Level 2—Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets.

Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

Whenever possible, we use observable market data and rely on unobservable inputs only when observable market data is not available, when determining fair value. The following tables summarize our assets and liabilities measured at fair value on a recurring basis:

	Level 1	Level 2	Level 3	Fair Value at December 31,2009
	(In thousands)			
Assets:				
Cash equivalents				
Money market funds	$5,492	$—	$—	$5,492
Short-term investments				
US Government and agency securities	—	4,905	—	4,905
Total assets measured at fair value	$5,492	$4,905	$—	$10,397
Liabilities:				
Convertible preferred stock warrants	$—	$—	$65	$65
Total liabilities measured at fair value	$—	$—	$ 65	$65
	Level 1	Level 2	Level 3	Fair Value at December 31,2010
	(In thousands)			
Assets:				
Cash equivalents				
Money market funds	$19	$—	$—	$19
Short-term investments				

US Government and agency securities	—	1,200	—	1,200
Total assets measured at fair value	$19	$1,200	$—	$1,219
Liabilities:				
Convertible preferred stock warrants	$—	$—	$745	$745
Total liabilities measured at fair value	$—	$—	$ 745	$745

	Level 1	Level 2	Level 3	Fair Value at March 31,2011
	(In thousands)			
	(Unaudited)			
Assets:				
Cash equivalents				
Money market funds	$2	$—	$—	$2
Short-term investments				
US Government and agency securities	—	300	—	300
Total assets measured at fair value	$2	$300	$—	$302
Liabilities:				
Convertible preferred stock warrants	$—	$—	$880	$880
Total liabilities measured at fair value	$—	$—	$880	$880

We did not realize any gains or losses on our short-term investments in 2008, 2009 or 2010. The following table provides a roll-forward of the fair value of the preferred stock warrants categorized as Level 3 for the years ended December 31, 2009 and 2010 (in thousands):

Balance at December 31, 2008	$ 239
Remeasurement of convertible preferred stock warrants	(174)
Balance at December 31, 2009	65
Issuance of convertible preferred stock warrants	487
Remeasurement of convertible preferred stock warrants	193
Balance at December 31, 2010	745
Issuance of convertible preferred stock warrants (Unaudited)	19
Remeasurement of convertible preferred stock warrants (Unaudited)	116
Balance at March 31, 2011 (Unaudited)	$880

Our preferred stock warrants are categorized as Level 3 because they were valued based on unobservable inputs and our judgment due to the absence of quoted market prices, inherent lack of liquidity and the long-term nature of such financial instruments. We perform a fair value assessment of the preferred stock warrant inputs on a quarterly basis using the Black-Scholes model and the following variable assumptions: remaining contractual lives ranging from 4 to 10 years, volatility of 50% and risk-free interest rates ranging from 0.97% to 3.47%. The assumptions used in the Black-Scholes model are inherently subjective and involve significant judgment. Any change in fair value is recognized as a component of other income (expense) on the statements of operations.

Accounts Receivable

Accounts receivable consists of amounts billed currently due from customers net of an allowance for doubtful accounts and an allowance for sales returns. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in existing accounts receivable and is determined based on historical write-off experience and on specific customer accounts believed to be a collection risk. Account balances are written off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. We record our sales returns allowance based on historical returns experience.

The following table summarizes our allowance for doubtful accounts:

	Balance at beginning ofyear	Charged to costs andexpenses	Write-offs	Balance at end of year
	(In thousands)			
Allowance for doubtful accounts:				
For year ended December 31, 2008	$125	$112	$(87)	$150
For year ended December 31, 2009	150	14	(89)	75
For year ended December 31, 2010	75	28	(3)	100

The following table summarizes our allowance for sales returns:

	Balance at beginning ofyear	Charged to costs andexpenses	Write-offs	Balance at end of year
	(In thousands)			
Allowance for sales returns:				
For year ended December 31, 2010	$—	$406	$—	$406

Inventory

Inventories consist of a combination of raw materials, work-in-progress and finished goods and are stated at the lower of cost or market. Cost is determined using the average costing method, which approximates the first in, first out, or FIFO, method. Reserves for excess and obsolete inventory are established based on our analysis of inventory levels and future sales forecasts.

Inventories consist of the following:

	December 31,		March 31,
	2009	2010	2011
			(Unaudited)
	(In thousands)		
Raw materials	$231	$4,603	$5,877
Work-in-process	958	1,164	5,757
Finished goods	728	2,145	2,758
Total inventory	$1,917	$7,912	$14,392

Inventory write-downs are included in cost of revenue and were $894,000, $0 and $592,000 for the years ended December 31, 2008, 2009 and 2010, respectively, and $14,000 and $109,000 for the three months ended March 31, 2010 and 2011, respectively.

Long-Lived Assets and Intangible Assets

Long-lived assets include property and equipment. We assess the carrying value of our long-lived assets and intangible assets with a definite life, when indicators of impairment exist and recognize an impairment loss when the carrying amount of an asset is not recoverable from the undiscounted cash flows expected to result from the use and eventual disposition of the asset. Impairment losses are measured by comparing the carrying amount of a long-lived asset to its fair value.

Identifiable intangible assets are comprised of purchased customer lists, patents and developed technologies. Identifiable intangible assets are amortized over their estimated useful lives, ranging from four to eight years, using the straight-line method.

Property and equipment are recorded at cost. Depreciation is determined using the straight-line method over the estimated useful life of the assets. Additions and improvements that increase the value or extend the life of an asset are capitalized. Ordinary repairs and maintenance are expensed as incurred. Assets under capital leases and leasehold improvements are amortized over the shorter of the term of the lease or the estimated useful life of the asset.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net identified assets acquired in a business combination. We evaluate our goodwill which is assigned to our Indy reader IC reporting unit for impairment on an annual basis on September 30 or when indicators for impairment exist. Indicators of impairment would include: the impacts of significant adverse changes in legal factors; market and economic conditions; the result of our operational performance and strategic plans; adverse actions by regulators; unanticipated changes in competition and market share; and the potential for sale or disposal of all or a significant portion of our business. A significant impairment could have a material adverse effect on our financial position and results of operations. No impairment charge for goodwill was recorded during the years ended December 31, 2008, 2009 and 2010.

Restricted Cash

At December 31, 2009 and 2010, restricted cash consists of letters of credit issued as security for leased facilities in Seattle, Washington and Newport Beach, California.

Revenue Recognition

We generate revenue from sales of our hardware products, software, development and service contracts and licensing agreements. We recognize product revenue when: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred and there are no significant post-delivery obligations remaining; (3) the price is fixed or determinable; and (4) collection is probable.

Product Revenue. Hardware products are typically considered delivered upon shipment. Certain arrangements contain provisions for customer acceptance. Where we are unable to demonstrate that the customer acceptance provisions are met on shipment, revenue is deferred until all acceptance criteria have been met or the acceptance clause or contingency lapses.

For the sale of products to a distributor, we evaluate our ability to estimate returns, considering a number of factors, the geography in which a sales transaction originates, payment terms and our relationship and past history with the distributor. If we are not able to estimate returns at the time of sale to a distributor, revenue recognition is deferred until there is persuasive evidence indicating the product has sold-through to an end user. Persuasive evidence of

sell-through may include reports from distributors documenting sell-through activity, data indicating an order has shipped to an end user or other similar information. At the time of revenue recognition, we record reserves for estimated sales returns and stock rotation arrangements. Sales returns and stock rotation reserves are estimated based on historical activity and expectations of future experience. We monitor and analyze actual experience and adjust these reserves on a quarterly basis.

Our Speedway reader products are sold in combination with services, which primarily consist of hardware and software support. Hardware support includes Internet access to technical content, repair or replacement of hardware in the event of breakage or failure and telephone and Internet access to technical support personnel during the term of the support period. Software is integrated with our Speedway reader products and is essential to the functionality of the integrated products.

In October 2009, the Financial Accounting Standards Board, or FASB, amended the accounting standards for revenue recognition to remove tangible products containing software components and non-software components that function together to deliver the product's essential functionality from the scope of industry-specific software revenue recognition guidance. In October 2009, the FASB also amended the accounting standards for multiple deliverable revenue arrangements to: (1) provide updated guidance on whether multiple deliverables exist, how the deliverables in an arrangement should be separated and how the consideration should be allocated; (2) require an entity to allocate revenue in an arrangement using best estimated selling prices, or ESP, of deliverables if a vendor does not have vendor-specific objective evidence of selling price, VSOE, or third-party evidence of selling price, or TPE; and (3) eliminate the use of the residual method and require an entity to allocate revenue using the relative selling price method. We elected to early adopt this accounting guidance at the beginning of 2010 on a prospective basis for applicable transactions originating or materially modified after January 1, 2010. This guidance does not generally change the units of accounting for our revenue transactions.

For multi-element arrangements that include hardware products containing software essential to the hardware product's functionality and undelivered software elements relating to the hardware product's essential software, we allocate revenue to all deliverables based on their relative selling prices. In such circumstances, the newly adopted accounting principles establish a hierarchy to determine the selling price to be used for allocating revenue to deliverables as follows: (1) VSOE; (2) TPE; and (3) ESP. VSOE generally exists only when we sell the deliverable separately and is the price actually charged by us for that deliverable. When VSOE cannot be established, we attempt to establish the selling price of each element based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. We are unable to reliably determine what similar competitor products' selling prices are on a stand-alone basis and are therefore typically not able to determine TPE. When we are unable to establish selling price using VSOE or TPE, we use ESP in the allocation of arrangement consideration. The objective of ESP is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis.

Our ESPs for the hardware and software products are calculated using a method consistent with the way management prices new products. We consider multiple factors in developing the ESPs for our products including our historical pricing and discounting practices, the costs incurred to manufacture the product, the nature of the customer relationship and market trends. In addition, we may consider other factors as appropriate, including the pricing of competitive alternatives if they exist and product-specific business objectives. We regularly review VSOE and ESP and maintain internal controls over the establishment and updates of these estimates.

We present revenue net of sales tax in our statement of operations. Shipping charges billed to customers are included in product revenue and the related shipping costs are included in cost of product revenue.

Development, Service and Licensing Revenue. We account for nonrecurring engineering development contracts and license contracts that involve significant production, modification or customization of our products by generally recognizing the revenue over the performance period under the percentage of completion, or POC, method measured on a cost incurred basis and when amounts are legally due under the terms of the agreement. Advance payments under these license and development contracts are deferred and recognized as revenue ratably over the contract period. Under the POC method of accounting, sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred and total estimated costs at the completion of the contract. Changes to the original estimates may be required during the life of the contract. Estimates are reviewed periodically and the effect of any change in the estimated gross margin percentage for a contract is reflected in cost of sales in the period the change becomes known. The use of the POC method of accounting involves considerable use of estimates in determining revenue, costs and profits and in assigning the amounts to accounting periods.

We recognize revenue in accordance with industry specific software accounting guidance for stand alone software licenses and related support services. Revenue from license agreements that do not require significant production, modification or customization of our software is generally recognized when: (1) delivery has occurred; (2) there is no customer acceptance clause in the contract; (3) there are no significant post-delivery obligations remaining; (3) the price is fixed; and (4) collection of the resulting receivable is reasonably assured. For transactions, where we have established VSOE for the fair value of support services as measured by the renewal prices paid by our customers when the services are sold separately on a stand alone basis, we use the residual method to determine the amount of software product revenue to be recognized. Under the residual method, the fair value of the undelivered elements is deferred and the remaining portion of the sales amount is recognized as license revenue. Support services revenue is deferred and recognized ratably over the period during which the services are to be performed, which is typically from one to three years. In those instances where we have not established VSOE of our support services, the license and service revenue is recognized on a straight-line basis over the support period.

Amounts allocated to the support services sold with our Speedway reader products are deferred and recognized on a straight-line basis over the support services term.

Guarantees and Product Warranties

In the normal course of business to facilitate sales of our products, we indemnify other parties, including customers, resellers and parties to other transactions with us, with respect to certain matters. We have agreed to hold the other party harmless against losses arising from a breach of representations or covenants, from intellectual property infringement and from other claims made against certain parties. These agreements may limit the time within

which an indemnification claim can be made and the amount of the claim. It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement.

We provide limited warranty coverage for most products generally ranging from a period of 90 days to one year from the date of shipment. A liability is recorded for the estimated cost of product warranties based on historical claims, product failure rates and other factors when the related revenue is recognized. We review these estimates on a regular basis and adjust the warranty reserves as actual experience differs from historical estimates or other information becomes available. This warranty liability primarily includes the anticipated cost of materials, labor and shipping necessary to repair or replace the product. Accrued warranty costs in 2008, 2009 and 2010 were not material.

Research and Development Costs

Research and development costs are expensed as incurred and consist of salaries and related benefits of product development personnel, contract developers, prototype materials and other expenses related to the development of new and improved products.

Income Taxes

We use the liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates expected to be in effect when such assets and liabilities are recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the year that includes the enactment date. We determine deferred tax assets including net operating losses and liabilities, based on temporary differences between the book and tax bases of assets and liabilities. We believe that it is currently more likely than not that our deferred tax assets will not be realized and as such, a full valuation allowance is required.

We utilize a two-step approach for evaluating uncertain tax positions. Step one, recognition, requires us to determine if the weight of available evidence indicates that a tax position is more likely than not to be sustained upon audit, including resolution of related appeals or litigation processes, if any. If a tax position is not considered “more likely than not” to be sustained, no benefits of the position are recognized. Step two, measurement, is based on the largest amount of benefit which is more likely than not to be realized on effective settlement.

Net Loss Per Share

Net loss attributable to common stockholders per share is computed by dividing the net loss allocable to common stockholders by the weighted average number of shares of common stock outstanding. We have outstanding stock options, unvested common stock subject to repurchase, warrants, preferred stock and convertible debt, which have not been included in the calculation of diluted net loss attributable to common stockholders per share because to do so would be anti-dilutive. As such, the numerator and the denominator used in computing both basic and diluted net loss attributable to common stockholders per share for each period are the same.

The following table provides a reconciliation of the numerator and denominator used in computing basic and diluted net loss per common share:

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
	(In thousands, except per share amounts)				
Numerator:					
Net loss	$(11,862)	$(9,860)	$(11,385)	$(3,087)	$(1,801)
Accretion of redeemable convertible preferred stock	(7,619)	(8,559)	(8,558)	(2,140)	(2,037)
Net loss attributable to common stockholders	$(19,481)	$(18,419)	$(19,943)	$(5,227)	$(3,838)
Denominator:					
Weighted average common shares outstanding	30,914	33,680	34,321	33,846	35,073
Weighted average unvested shares of common stock subject to repurchase	(405)	(153)	(194)	(123)	(249)
Weighted average common shares outstanding—basic and diluted	30,509	33,527	34,127	33,723	34,824

The following outstanding options, warrants and preferred stock were excluded from the computation of diluted net loss per common share applicable to common stockholders for the periods presented because their effect would have been antidilutive:

	Year Ended December 31,			March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
	(In thousands)				
Options to purchase common stock	14,024	17,301	17,851	17,252	21,914
Convertible preferred stock (as converted)	97,465	97,465	97,465	97,465	97,465
Subordinated convertible promissory notes (as converted)	—	—	2,739	—	2,797
Convertible preferred stock warrants (as converted)	219	219	243	219	260

Convertible preferred stock warrants (as converted)	–	–	891	–	891
Common stock warrant	–	–	–	–	300

Pro Forma Net Loss Per Share (Unaudited)

Pro Forma net loss per share is computed as follows:

	Year Ended December 31,	Three Months EndedMarch 31,
	2010	2011
	(In thousands)	
Numerator:		
Net loss	$(11,385)	$(1,801)
Revaluation of preferred stock warrants	193	116
Net loss attributable to common stockholders	$(11,192)	$(1,685)
Denominator:		
Weighted average common shares outstanding	34,321	35,073
Weighted average unvested shares of common stock subject to repurchase	(194)	(249)
Adjustment for conversion of preferred stock	97,465	97,465
Weighted average common shares outstanding—basic and diluted	131,592	132,289

Outstanding options and warrants were excluded from the computation of pro forma net loss per share because their effect would have been antidilutive.

Stock-Based Compensation

We have a stock-based employee compensation plan that is more fully described in Note 11.

We account for stock-based compensation at fair value. Stock-based compensation costs are recognized based on their grant date fair value estimated using the Black-Scholes model. Stock-based compensation expense recognized in the statement of operations is based on options ultimately expected to vest and has been reduced by an estimated forfeiture rate based on our historical and expected forfeiture patterns.

We use the straight-line method of allocating compensation cost over the requisite service period of the related award. The expected term of options granted is based on expectations of historical experience of similar awards and expectation of future employee behavior. The risk-free rate for the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant. We based our estimate of expected volatility on the estimated volatility of similar entities whose share prices are publicly available. We have not paid and do not anticipate paying cash dividends on common stock; therefore, the expected dividend yield is assumed to be zero.

The following table presents the detail of stock-based compensation expense amounts included in our statement of operations for the periods indicated below:

	Year Ended December 31,			Three months ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
	(In thousands)				
Cost of revenue	$16	$20	$25	$6	$7
Research and development	123	114	203	31	109
Selling and marketing	96	82	138	21	47
General and administrative	112	97	133	39	68
Total stock-based compensation expense	$347	$313	$499	$97	$231

We account for equity instruments issued to nonemployees at fair value. All transactions in which services are received for the issuance of equity instruments are accounted for based on the fair value of the equity instrument issued. The measurement date of the fair value of the equity instrument issued is the earlier of the date on which the counterparty's performance is complete or the date on which it is probable that performance will occur. Stock-based compensation expense on options granted to nonemployees was not material in 2008, 2009, 2010 and the three months ended March 31, 2010 and 2011.

Advertising

Advertising costs are expensed as incurred. Advertising costs were $247,000, $81,000, $142,000, $45,000 and $29,000 for the years ended December 31, 2008, 2009 and 2010 and the three months ended March 31, 2010 and 2011, respectively.

Risks and Uncertainties

Inherent in our business are various risks and uncertainties, including our limited operating history and development of advanced technologies in a rapidly changing industry. These risks include the failure to develop and extend our products and the rejection of our products by consumers, as well as other risks and uncertainties. If we do not successfully implement our business plan, certain assets may not be recoverable, certain liabilities may not be paid and investments in our capital stock may not be recoverable. Our success depends upon the acceptance of our technology, development of sales and distribution channels and our ability to generate significant revenue from the use of its technology.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes unrealized gains and losses on investments and foreign currency translation adjustments. For the three months ended March 31, 2010, there are no components of other comprehensive loss which are not included in net loss; therefore a separate statement of accumulated other comprehensive loss is not included.

3. Property and Equipment

Property and equipment at December 31 consist of the following:

		December 31,	
	Useful Lives	2009	2010
	(years)	(In thousands)	
Laboratory equipment	3	$3,153	$3,689
Computer equipment and software	3	1,789	2,017
Furniture and fixtures	3-7	561	561
Leasehold improvements	shorter of lease term oreconomic life	1,219	1,219
		6,722	7,486
Less: Accumulated depreciation		(5,229)	(6,224)
		$1,493	$1,262

Depreciation expense was $1.1 million, $1.2 million and $995,000 for the years ended December 31, 2008, 2009 and 2010, respectively. The net book value of property and equipment acquired under capital leases was $300,000 and $322,000 at December 31, 2009 and 2010, respectively.

For the year ended December 31, 2010, we capitalized $51,000 of internally developed software in connection with costs incurred for the upgrade of our ERP system which was placed in service in February 2011.

4. Business Combinations

On July 3, 2008, we acquired Intel Corporation's UHF Gen2 reader IC operation to add an additional product line to the RFID solutions we provide. The purchase consideration for Intel's net assets related to the UHF Gen2 reader IC business was common and preferred stock valued at $6.5 million. The acquisition was accounted for under the purchase method. In addition to the equity consideration provided to Intel, we incurred an additional $254,000 of direct acquisition costs.

We determined that the UHF Gen2 reader IC operations constituted a business combination. Accordingly, the allocation of the purchase price to tangible and identifiable intangible assets acquired and liabilities assumed was based on their estimated fair values as of the date of acquisition. The excess of the purchase price over the tangible and identifiable intangible assets acquired and liabilities assumed was allocated to goodwill.

The purchase consideration was as follows (in thousands):

Issuance of shares of redeemable convertible Series E preferred stock	$5,861
Issuance of shares of common stock	662
Acquisition costs	254
Total consideration paid	$6,777

The allocation of the purchase price was as follows (in thousands):

Inventory	$ 264
Property and equipment	1,150
Net liabilities assumed	(868)
Intangible assets	1,700
Goodwill	3,881
In-process research and development	650
Total consideration paid	$6,777

The amounts allocated to the identifiable intangible assets were determined through established valuation techniques accepted in the technology industry, primarily using the income approach. We determined the valuation of the identifiable intangible assets using future cash flow assumptions and discount rates ranging from 19% to 22%. The acquired intangible assets included developed technology, patents and customer lists. These intangible assets are amortized over the following estimated useful lives: four years for the technology, seven years for the patents and seven to eight years for the customer lists. The weighted average amortization period for the intangible assets is 5.9 years.

The $3.9 million of goodwill we recorded in connection with the acquisition is deductible for income tax purposes.

In connection with this acquisition, we recorded an expense of $650,000 in 2008 for the write-off of acquired in-process research and development, or IPR&D. The purchase price allocated to acquired IPR&D was determined through established valuation techniques. The acquired IPR&D was immediately expensed because technological feasibility had not been established, and no future alternative use of the technology existed. The write-off of acquired IPR&D is a component of research and development expense in the statements of operations.

The results of operations and the estimated fair values of the assets acquired and liabilities assumed is included in our financial statements from the date of acquisition.

The acquired business contributed revenue of approximately $586,000 for the period from July 1, 2008 to December 31, 2008. The following unaudited pro forma summary presents consolidated information as if we had acquired the business as of January 1, 2008. Adjustments have been made for the estimated amortization of intangible assets and other appropriate pro forma adjustments. The charges for purchased in-process research and development are included in the pro forma results. The information presented does not purport to be indicative of the results that would have been achieved had the acquisition been made as of January 1, 2008 nor of the results which may occur in the future.

	Year Ended December 31,
	2008
	(In thousands except per share data)
	(Unaudited)
Total revenue	$15,973
Net loss from continuing operations	(18,522)
Gain on discontinued operations	1,275
Net loss	$(17,247)
Net loss attributable to common stockholders	$(24,866)
Basic and diluted loss per common share:	
Loss from continuing operations	$(0.86)
Gain on discontinued operations	0.04
Net loss	$(0.82)
Weighted average number of shares used in computation of per share amounts	30,509

These amounts have been calculated applying our accounting policies and adjusting the results of the acquired business to reflect the additional amortization that would have been charged assuming the fair value adjustment to intangible assets had been applied from January 1, 2008 together with consequential tax effects.

5. Intangible Assets

Intangible assets at December 31, 2009 and 2010 consist of the following:

		December 31, 2009			December 31, 2010		
	Useful Lives (Years)	Gross	Accumulated Amortization	Net	Gross	Accumulated amortization	Net
	(In thousands)						
Patents	7	$150	$(32)	$118	$150	$(54)	$96
Customer list	7-8	700	(133)	567	700	(221)	479
Technology	4	850	(319)	531	850	(531)	319
		$1,700	$(484)	$1,216	$1,700	$(806)	$894

The weighted average remaining amortization period for the intangible assets is 3.9 years. Amortization expense related to these intangibles was $161,000, $323,000 and $322,000 for the years ended December 31, 2008, 2009 and 2010, respectively.

Estimated amortization expense of intangible assets for the next five years and thereafter are as follows (in thousands):

Year Ended December 31,	
2011	$322
2012	216

2013	110
2014	110
2015	96
Thereafter	40
	$894

6. Discontinued Operations

In June 2008, we sold our nonvolatile memory, or NVM, business to Synopsys, Inc. for total consideration of $5.2 million of which $450,000 was placed in escrow until certain contingencies lapsed. This $450,000 was recorded as restricted cash and a deferred gain in 2008. In 2009, the contingencies lapsed and we reclassified the $450,000 from restricted cash to cash and recognized the deferred gain. The sale included intellectual property, NVM technology and certain property and equipment.

Our historical financial results have been reclassified as discontinued operations in the statement of operations for all periods presented. The resulting gains of $3.6 million and $450,000 from the sale are included in the gain on discontinued operations in the statement of operations for the years ended December 31, 2008 and 2009. Summarized operating results for the intellectual property products business for the years ended December 31, 2008 and 2009 are as follows:

	Year Ended December 31,	
	2008	2009
	(In thousands)	
Total revenue	$1,262	$—
Operating expenses	(2,923)	—
Gain on discontinued operations	3,634	450
Pretax gain from discontinued operations	1,973	450
Income taxes	(698)	(159)
Gain on discontinued operations	$1,275	$291

7. Income Taxes

At December 31, 2010, we had federal net operating loss carryforwards, or NOLs, of approximately $105.9 million and federal research and experimentation credit carryforwards of approximately $5.1 million which may be used to reduce future taxable income or offset income taxes due. These NOLs and credit carryforwards expire beginning in 2020 through 2029.

Our net deferred tax assets consisted of the following for the periods indicated:

	Year Ended December 31,	
	2009	2010
	(In thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$33,071	$36,719
Credit carryforwards	3,678	4,140
Depreciation and amortization	830	653
Capitalized research and development	993	646
Deferred rent	69	248
Allowances	285	503
Other	283	448
Deferred tax assets	39,209	43,357
Less: Valuation allowance	(39,209)	(43,357)
Net deferred tax assets	$—	$—
Deferred tax liability:		
Goodwill	(138)	(228)
Net deferred tax liability	$(138)	$(228)

We did not record a tax benefit related to our stock options during the years ended December 31, 2008, 2009 and 2010, since we currently maintain a full valuation allowance for our deferred tax assets. Our realization of the benefits of the NOLs and credit carryforwards is dependent on sufficient taxable income in future fiscal years. We have established a valuation allowance against the carrying value of our deferred tax assets, as it is not currently more likely than not that we will be able to realize these deferred tax assets. In addition, utilization of NOLs and credits to offset future income subject to taxes may be subject to substantial annual limitations due to the “change in ownership” provisions of the Internal Revenue Code of 1986, or the Code, and similar state

provisions. Events that cause limitations in the amount of NOLs that we may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50%, as defined by Code Section 382, over a three-year period. Utilization of our NOLs and tax credit carryforwards could be significantly reduced if a cumulative ownership change of more than 50% has occurred in our past or occurs in our future.

Our income tax (expense) benefit consists of the following:

	2008	2009	2010
	(In thousands)		
Current:			
US	$—	$—	$—
Foreign	—	—	—
	—	—	—
Deferred:			
US	$644	$50	$(90)
Foreign	—	—	—
	$644	$50	$(90)

We file a U.S. federal income tax return. A reconciliation of the effect of applying federal statutory rates and the effective income tax rates used to calculate our income tax expense (benefit) on our loss from continuing operations is as follows:

	2008	2009	2010
U.S. statutory rate	34.0%	34.0%	34.0%
Change in valuation allowance	(33.8)	(42.2)	(38.1)
State taxes (net of federal benefit)	1.2	1.3	1.3
Federal research and development credit	6.0	5.4	5.7
Nondeductible expenses and other	(2.8)	2.0	(3.1)
Effective income tax rate	4.6%	0.5%	(0.8)%

Income from discontinued operations before income tax expense was approximately $2.0 million and $450,000 for the years ended December 31, 2008 and 2009, respectively, and was all derived in the United States. The following table is a reconciliation from the U.S. statutory rate to the effective tax rate for discontinued operations:

	2008	2009
U.S. statutory rate	34.0%	34.0%
State taxes (net of federal benefit)	1.4	1.4
Effective income tax rate	35.4%	35.4%

The table below summarizes changes in the deferred tax asset valuation allowance:

	Balance at beginning ofyear	Charged to costs andexpenses	Write-offs	Balance at end of year
	(In thousands)			
Deferred tax valuation allowance:				
For year ended December 31, 2008	$31,390	$4,759	$—	$36,149
For year ended December 31, 2009	36,149	3,060	—	39,209
For year ended December 31, 2010	39,209	4,148	—	43,357

We classify applicable interest and penalties as a component of the provision for income taxes. The amount of accrued interest and penalties is not material. The total balance of unrecognized tax benefits was as follows:

	Year Ended December 31,	
	2009	2010
	(In thousands)	
Unrecognized tax benefits at beginning of year	$1,100	$1,226
Additions based on current year tax positions	126	154
Unrecognized tax benefits at end of year	$1,226	$1,380

We do not anticipate that the amount of our existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. Due to the presence of net operating loss carryforwards in most jurisdictions, our tax years remain open for examination by taxing authorities back to 2000.

8. Debt Facilities

In May 2010, we entered into a loan and security agreement, or Credit Facility with a bank (the "Bank"), pursuant to which we (1) incurred $1.5 million in term loan borrowings and were allowed to incur an additional $500,000 of term loan borrowings prior to January 31, 2011 and (2) could incur revolver borrowings of up to the lesser of $4.0 million and a borrowing base tied to the amount of eligible accounts receivable. The Credit Facility also provides for the issuance of letters of credit, foreign exchange forward contracts and cash management services; however, the amount of revolver borrowings available to us is reduced by any such indebtedness that we incur. Interest on term loan borrowings accrues at a floating rate equal to the greater of 5.0% and the lender's prime rate plus 0.5% (5.0% at December 31, 2010). We are required to repay the initial term loan borrowings in 24 equal monthly installments beginning on May 1, 2011 and any subsequent term loan borrowings in 27 equal monthly installments beginning on the first day of the month following the day on which such indebtedness was incurred. We may at our option prepay all of the term loan borrowings by paying the lender all principal and accrued interest plus a make-whole premium. Interest on revolver borrowings accrues at a floating rate equal to the greater of the lender's prime rate and 4.0% (4.0 % at December 31, 2010) and is payable monthly. At December 31, 2010, $4.0 million was outstanding on the revolving line of credit and $2.0 million was outstanding on the term loan. The weighted average interest rate on this facility was 4.3% at December 31, 2010.

In February 2011, the Credit Facility was amended to provide for an additional $2.0 million of "Facility B" term loan borrowings. Interest on Facility B term loan borrowings accrues at a floating rate equal to the greater of 4.5% and the lender's prime rate plus 1.25% and is payable monthly. We are required to repay the Facility B term loan in 27 equal monthly installments beginning on October 1, 2011. In addition, the Credit Facility was amended to increase the amount of available revolver borrowings to $10.0 million, to provide for interest on revolver borrowings at a floating rate equal to the lender's prime rate plus 0.75% and to extend the maturity date to February 1, 2013. The U.S. Export-Import Bank has agreed to guarantee up to $6.8 million of revolver borrowings incurred under the Credit Facility to finance the cost of manufacturing, purchasing or selling items intended for export.

The Credit Facility contains customary conditions to borrowing, events of default and covenants, including covenants that restrict our ability to dispose of assets, merge with or acquire other entities, incur indebtedness, incur encumbrances, make distributions to holders of our capital stock, make investments or engage in transactions with our affiliates. The Credit Facility also requires us to maintain a minimum tangible net worth and liquidity ratio. We were in compliance with such covenants as of December 31, 2010. Our obligations under the Credit Facility are secured by substantially all of our assets other than intellectual property.

Scheduled principal maturities are as follows (in thousands):

Year ended December 31,	
2011	$722
2012	972
2013	4,306
	$6,000

In connection with the establishment of the Credit Facility and its subsequent amendment, we issued warrants to purchase 24,059 and 17,498, shares of Series E preferred stock, respectively, at an exercise price of $2.286 per share. We valued these warrants on the date of grant, June 2, 2010 and February 2, 2011 at $17,000 and $19,000, respectively, using the Black-Scholes model with the following variables: Series E preferred stock price of $1.33 at June 2, 2010 and $1.80 at February 2, 2011, the contractual life of 10 years, volatility of 50% and a risk free interest rate ranging from 3.35% to 3.52%. The warrant discount is being amortized to interest expense over the commitment term of the Credit Facility. The warrants are exercisable through June 2, 2020 and February 1, 2021, respectively.

In connection with a prior loan obtained in 2007 and which was paid off in May 2010, we issued warrants to purchase 218,723 shares of Series E preferred stock at an exercise price of $2.286 per share. We valued the warrants at the date of grant, October 3, 2007, at $284,000, using the Black-Scholes model with the following variables: Series E preferred stock price of $2.29, the contractual life of seven years, volatility of 50% and a risk free interest rate of 4.4%. The warrant discount was amortized to interest expense over the loan commitment term. The warrants are exercisable through October 3, 2014, or upon sale, consolidation or merger of our company or sale of all or substantially all of our assets.

In March 2011, we entered into a loan and security agreement with the Bank, which we refer to as the mezzanine credit facility, pursuant to which we incurred $10.0 million in term loan borrowings. Interest on term loan borrowings incurred under the mezzanine credit facility accrues at a fixed rate equal to 11.0% per year and is payable monthly. The principal amount of all outstanding borrowings is payable on March 25, 2013. We may, at our option, prepay all borrowings without penalty by paying the lender all principal and accrued interest with respect to such term loan borrowing. The mezzanine credit facility contains customary events of default and covenants that are substantially similar to those contained in the Credit Facility, except for certain covenants relating to reporting, tangible net worth and liquidity ratio, requirements which are omitted from the mezzanine credit facility. Our obligations under the loan and security agreement are secured by substantially all of our assets other than intellectual property. In addition, we entered into a success fee agreement in connection with the mezzanine loan facility, which requires us to pay a success fee if we are acquired or we sell all or substantially all of our assets. The success fee agreement will automatically terminate upon the completion of a public offering for our common stock.

In connection with the mezzanine credit facility, we issued the lender a warrant to purchase 300,000 shares of our common stock. The warrant has a ten year term and an exercise price of $0.21 per share. We valued the warrant at the date of grant, March 25, 2011, at $270,000, using the Black-Scholes model with the following variables: common stock fair value of $1.02, the contractual life of 10 years, volatility of 51.5% and a risk free interest rate of 3.5%. The warrant discount will be amortized to expense over the loan commitment term.

As of March 31, 2011, we had approximately $1.5 million of term loan borrowings, $400,000 of Facility B term loan borrowings, $10.0 million of mezzanine borrowings and $7.7 million of revolver borrowings outstanding.

9. Subordinated Convertible Promissory Notes—Related Parties

In June and July 2010, we issued approximately $6.0 million aggregate principal amount of our subordinated secured convertible promissory notes, or the Notes, to existing investors. Interest on the Notes accrues at 9.0% and all unpaid principal and interest is payable on the scheduled maturity date of June 30, 2011; provided that, if a liquidity event has not occurred prior to the scheduled maturity date, the maturity date may be extended by the vote of holders of more than 60% of the aggregate principal amount of the Notes. We are required to repay all principal and accrued interest on the Notes together with a premium equal to the sum of all principal and accrued interest on the Notes in connection with the consummation of an initial public offering; however, holders of over $100,000 aggregate principal amount of Notes may, at their option, convert their notes plus accrued interest into (1) shares of our Series E preferred stock at a conversion price of $2.286 per share (which conversion price is subject to adjustments for stock splits, reverse stock splits, stock dividends and the like) or (2) if all of the shares of our Series E preferred stock are converted into shares of our common stock, a number of shares of common stock that holders would have received had they converted their notes into Series E preferred stock immediately prior to the conversion. The Notes contain customary events of default and covenants. We were in compliance with such covenants as of December 31, 2010. Our obligations under the Notes are secured by substantially all of our assets other than intellectual property. The Notes are subordinate in right of payment to the Credit Facility described above. As of December 31, 2010, total outstanding aggregate principal and accrued interest for the Notes was approximately $6.0 million.

In connection with the issuance of the Notes, we issued warrants to purchase an aggregate of 890,721 shares of our capital stock of the same type and at the same price as the Notes are convertible into. The warrants will be exercised automatically on a net exercise basis if the initial per share price to the public in a public offering exceeds the exercise price of the warrants. We valued the warrants issued in connection with the Notes on the date of grant at $470,000 using the Black-Scholes model with the following variables: Series E preferred stock price of $1.33, the contractual life of seven years, volatility of 50% and a risk free interest rate of 2.42%. The value of the warrants was based on the assumption that they would be exercised for Series E preferred stock. The warrant discount is being amortized to expense over the term of the Notes. In 2010 we recognized $235,000 of expense for these warrants. The warrants are exercisable until conversion or repayment of the related Notes.

In connection with the promissory note agreements, the Note holders agreed to not pursue the repayment of any indebtedness under the Notes or under any other instrument or writing evidencing new indebtedness to them while there was outstanding borrowings under the credit facility or mezzanine credit facility.

10. Redeemable Convertible Preferred Stock and Stockholders' Deficit

Common Stock

We have authorized 160,000,000 shares of voting $0.001 par value common stock. Each holder of the common stock is entitled to one vote per common share. At its discretion, the Board of Directors may declare dividends on shares of common stock, subject to the prior rights of our preferred stockholders. Upon liquidation or dissolution, holders of common stock will receive distributions only after preferred stock preferences have been satisfied.

We have reserved 124,632,857 shares of common stock for the conversions of preferred stock and the exercise of options and warrants.

Redeemable Convertible Preferred Stock

As of December 31, 2010, we have authorized 206,227,960 shares of preferred stock, of which 4,000,000 have been designated Series A convertible preferred stock, 4,000,000 have been designated Series A-1 convertible preferred stock, 18,134,992 have been designated Series B convertible preferred stock, 18,134,992 have been designated Series B-1 convertible preferred stock, 43,382,413 have been designated Series C redeemable convertible preferred stock and 43,382,413 have been designated Series C-1 redeemable convertible preferred stock, 13,596,575 have been designated Series D redeemable convertible preferred stock and 13,596,575 have been designated Series D-1 redeemable convertible preferred stock, 24,000,000 have been designated Series redeemable convertible E preferred stock and 24,000,000 have been designated Series E-1 redeemable convertible preferred stock. None of the shares of Series A-1 preferred stock, Series B-1 preferred stock, Series C-1 preferred stock, Series D-1 preferred stock or Series E-1 preferred stock has been issued as of December 31, 2010.

Redemption

The holders of a majority of the outstanding shares of Series C preferred stock, Series D preferred stock or Series E preferred stock, may, at any time after February 23, 2011, require us to redeem the Series C preferred stock, Series D preferred stock or Series E preferred stock, respectively, at the original issuance price plus any declared or accumulated but unpaid dividends, plus an amount equal to 7% annual interest on the face value of the preferred stock accrued from the date of issuance of such shares.

One third of the shares are redeemable in the year the redemption election is made. The remaining shares are to be redeemed ratably over the next two anniversaries of the initial redemption date. If we do not have sufficient funds legally available to redeem all shares of Series C preferred stock, Series D preferred stock or Series E preferred stock, then we will (1) redeem the maximum possible number of shares ratably among holders of Series E preferred stock and (2) any remaining funds will be used to redeem the maximum possible number of shares ratably among holders of Series C preferred stock and Series D preferred stock. Thereafter, when additional funds are available for redemption of shares, the redemption will be subject to the priority noted above.

In addition, the Series A preferred stock, Series B preferred stock, Series C preferred stock, Series D preferred stock and Series E preferred stock all contain provisions that, in the event of a change in the control of our company, would give the holders of the preferred stock the right to receive a cash distribution equal to the liquidation preference on the preferred stock.

Due to the redemption characteristics described above, the preferred stock has not been included in the stockholders' deficit and is presented as redeemable convertible preferred stock as of December 31, 2010 and 2009.

As of December 31, 2009 and 2010, we have recorded accretion of $32.8 million and $41.4 million, respectively, of interest related to the Series C preferred stock, Series D preferred stock and Series E preferred stock, of which $7.6 million, $8.6 million and $8.6 million was recorded in 2008, 2009 and 2010, respectively.

In connection with the issuance of the subordinated convertible notes, holders of a majority of each of the Series C, Series D and Series E preferred stock agreed not to pursue the repayment of any indebtedness under the subordinated convertible notes or any other instrument or writing evidencing our indebtedness to them while there are outstanding borrowings under the Credit Facility or mezzanine credit facility described in Note 8.

Dividends

The holders of preferred stock are entitled to receive noncumulative dividends prior to and in preference to any dividends to common stockholders, at a rate of $0.015 per share per annum on each outstanding share of Series A preferred stock, approximately $0.083 per share per annum on each outstanding share of Series B and Series C preferred stock, approximately $0.195 per share per annum on each outstanding share of Series D preferred stock and approximately $0.229 per share per annum on each outstanding share of Series E preferred stock as and when declared by the Board of Directors. The dividend per share is subject to adjustment for stock splits, stock dividends and reclassification.

Liquidation

In the event of any liquidation, dissolution or winding up of the corporation, including a merger, acquisition or sale of assets where the beneficial owners of our common and preferred stock own less than 50% of the resulting voting power of the surviving entity, the holders of Series E preferred stock shall be entitled to receive, prior and in preference to any distribution of assets to the holders of Series A preferred stock, Series B preferred stock, Series C preferred stock, Series D preferred stock or common stock, an amount equal to $2.286 (subject to adjustment) for each share of Series E preferred stock held by them plus declared but unpaid dividends. If our assets are insufficient to permit this payment, then the assets shall be distributed ratably among the holders of Series E preferred stock.

If assets remain after this distribution, the holders of Series D preferred stock shall be entitled to receive, prior and in preference to any distribution of assets to the holders of Series A preferred stock, Series B preferred stock, Series C preferred stock or common stock, an amount equal to approximately $1.949 (subject to adjustment) for each share of Series D preferred stock held by them plus declared but unpaid dividends. If our assets are insufficient to permit this payment, then the assets shall be distributed ratably among the holders of Series D preferred stock.

If assets remain after this distribution, the holders of Series C preferred stock shall be entitled to receive, prior and in preference to any further distribution of assets to the holders of Series A preferred stock, Series B preferred stock or common stock, an amount equal to approximately $0.833 (subject to adjustment) for each share of Series C preferred stock held by them plus declared but unpaid dividends. If our assets are insufficient to permit this payment, then the assets shall be distributed ratably among the holder of Series C preferred stock.

If assets remain after this distribution, the holders of Series A preferred stock, Series B preferred stock, Series C preferred stock, Series D preferred stock and Series E preferred stock shall be entitled to receive, prior and in preference to any distribution of assets to the holders of common stock, an amount equal to (1) $0.15 (subject to adjustment) for each share of Series A preferred stock held by them plus declared but unpaid dividends, (2) approximately $0.833 (subject to adjustment) for each share of Series B preferred stock held by them plus declared but unpaid dividends, (3) approximately $0.833 (subject to adjustment) for each share of Series C preferred stock held by them plus declared but unpaid dividends, (4) approximately $1.949 (subject to adjustment) for each share of Series D preferred stock held by them plus declared but unpaid dividends and (5) $2.286 (subject to adjustment) for each share of Series E preferred stock held by them plus declared but unpaid dividends. If our assets are insufficient to permit these payments, then our assets shall be distributed ratably among all preferred stockholders.

If assets remain after this distribution, the assets shall be distributed ratably to the holders of Series B, C, D and E preferred stock (assuming conversion to common stock) and the common stockholders until the holders of Series B preferred stock have received an aggregate of approximately $2.083 per share, the Series C holders have received an aggregate of approximately $2.083 per share, the holders of Series D preferred stock have received an aggregate of $4.873 per share and the holders of Series E preferred stock have received an aggregate of $5.715 per share. After this distribution, all assets shall be ratably distributed to the common stockholders.

Voting

Each holder of preferred stock is entitled to vote on all matters and is entitled to that number of votes equal to the number of votes that would be accorded to the number of shares of common stock into which such holder's preferred stock would be converted.

Conversion

Each share of preferred stock is convertible at the option of the holder into such number of shares of common stock as is determined by dividing its stated value by the conversion price at the time of conversion. The conversion price is equal to the original issue price as adjusted for stock splits, stock dividends and recapitalizations. All shares of preferred stock will be automatically converted into shares of common stock upon the closing of a public offering if the public offering price is not less than $5.00 per share and results in aggregate proceeds of at least $25 million.

11. Stock Based Compensation

We have adopted various option plans under which stock options and common stock can be granted to employees and non-employees. The plans provide for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and any affiliates' employees and for the grant of nonstatutory stock options and awards of restricted or unrestricted shares of common stock to our employees, consultants and advisors and our affiliates' employees, consultants and advisors.

Employees are provided with the opportunity to early exercise stock options subject to the original vesting schedule of the option. In the event of voluntary or involuntary termination of employment with us, we have an irrevocable and exclusive option to repurchase the unvested portion of the shares, at the original exercise price after the termination of employment. We account for cash received in consideration for the purchase of unvested shares of common stock or the early exercise of unvested stock options as a current liability, included in accrued compensation and employee related benefits on the balance sheet. We repurchased 179,000, 0 and 15,000 unvested shares from terminated employees during 2008, 2009 and 2010, respectively.

Detail related to activity of unvested shares of our common stock is as follows:

	Number of UnvestedSharesOutstanding	Weighted-AverageFair Value
	(In thousands, except per share amounts)	
Balance as of December 31, 2009	155	$0.12
Issued	249	0.11
Vested	(116)	0.12
Repurchased	(15)	0.03
Balance as of December 31, 2010	273	0.12
Issued (Unaudited)	202	0.49
Vested (Unaudited)	(119)	0.13
Balance as of March 31, 2011 (Unaudited)	356	0.33

A summary of the option activity under our stock option plan is presented below:

		Options Outstanding	
	Shares Available forGrant	Number of Shares	Weighted-AverageExercise Price
	(In thousands, except per share amounts)		
Balances at December 31, 2009	356	17,301	$0.09
Additional shares reserved	2,000	–	
Options granted	(1,941)	1,941	0.09
Options exercised	–	(1,060)	0.10
Options canceled	331	(331)	0.09
Repurchased	15	–	0.05
Balances at December 31, 2010	761	17,851	0.09
Additional shares reserved (Unaudited)	4,735	–	
Options granted (Unaudited)	(4,522)	4,522	0.18
Options exercised (Unaudited)		(428)	0.13
Options cancelled (Unaudited)	30	(31)	0.09
Balance at March 31, 2011 (Unaudited)	1,004	21,914	0.11

The total intrinsic value for options exercised during the years ended December 31, 2008, 2009 and 2010 was $133,000, $0 and $125,000, respectively, representing the difference between the estimated fair values of our common stock underlying these options at the dates of exercise and the exercise prices paid. The total intrinsic value of options exercised during the three months ended March 31, 2010 and 2011 was $0 and $219,000, respectively.

The following table summarizes information about stock options outstanding at December 31, 2010:

	December 31, 2010			
Exercise Prices	Shares Subject toOptionsOutstanding	Weighted-AverageRemainingContractualLife (years)	Weighted-AverageExercise Price	Total IntrinsicValue

	(In thousands, except per share amounts)			
$0.05	12,157	8.64	$0.05	$8,510
$0.07 – $0.18	3,364	6.62	0.09	2,205
$0.20 – $0.22	540	5.49	0.21	293
$0.30	1,790	7.19	0.30	805
$0.05 – $0.30	17,851	8.02	0.09	$11,813
Exercisable	17,821	8.02	0.09	$11,793
Vested and expected to vest	16,184	8.02	0.09	$10,681

All options granted during the years ended December 31, 2008 and 2009 were granted at exercise prices that equaled the estimated per share value of our common stock at the date of grant. The estimated weighted-average grant date fair value of options granted during the years ended December 31, 2008 and 2009 was $0.30 and $0.05, respectively. The estimated weighted-average grant date fair value of the 1.9 million options granted during the year ended December 31, 2010, all with exercise prices less than the estimated per share value of our common stock at the date of grant, was $0.24. The estimated weighted average grant date fair value of the options granted during the three months ended March 31, 2010 and 2011, all with exercise prices less than the estimated per share value of our common stock at the date of grant, was $0.02 and $0.61, respectively. The fair value of each employee option grant for the years ended December 31, 2008, 2009, 2010 and three months ended March 31, 2010 and 2011 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
				(Unaudited)	
Risk-free interest rates	2.7% - 3.5%	2.2% - 3.0%	1.5% - 2.8%	2.2% - 2.8%	1.5% - 5.0%
Expected term	6.0 years	5.3 - 6.3 years	5.0 - 6.3 years	5.0 – 6.3 years	5.0 – 6.3 years
Expected dividends yield	None	None	None	None	None
Volatility	70.0%	57.4% - 58.8%	45.6% - 46.6%	46.6%	45.3% - 45.7%

We determined that it was not practicable to calculate the volatility of our share price since our securities are not publicly traded and therefore there is no readily determinable market value for our stock. Therefore, we estimated our volatility based on reported market value data for a group of publicly-traded entities that we believe was relatively comparable after consideration of their size, stage of lifecycle, profitability, growth and risk and return on investment. We used the average volatility rates reported by the comparable group for the expected term estimated by us.

The total fair value of options vested during the year was $389,000, $217,000 and $306,000 for 2008, 2009 and 2010, respectively. The total fair value of options vested during the three months ended March 31, 2010 and 2011 was $76,000 and $102,000.

As of December 31, 2010, our total unrecognized compensation cost related to stock based awards granted is $485,000 which will be recognized over the weighted-average remaining requisite service period of 2.6 years. As of March 31, 2011, our total unrecognized compensation cost related to stock based awards granted is $2.6 million which will be recognized over the weighted-average remaining requisite service period of 3.8 years.

In September 2009, we completed an offer to exchange certain employee stock options for new options with an exercise price of $0.05 granted on a one-for-one basis. The vesting period for the new options was lengthened by 12 to 24 months compared to the vesting period of the original option grants. Options for 6.6 million shares were exchanged resulting in a modification charge of $155,000 which is being recognized over the vesting period of the new options.

12. Commitments and Contingencies

We lease 37,716 square feet of office space in Seattle, Washington for our corporate headquarters under a noncancelable operating lease that expires in August 2016 with an option to renew for an additional three or five year term. The terms of the lease provide for rental payments on a graduated scale and include an option to lease additional office space in the future. Under the terms of the lease, we received landlord incentives totaling $754,000. We recorded these landlord incentives as deferred rent obligations and are amortizing them as a reduction in rental expense over the term of the lease. In addition, we lease additional office space in various locations and each of these leases expires or converts to a month-to-month lease during 2011 except one lease which expires in February 2012.

We recognize rent expense on a straight line basis over the lease period. Total rent expense under noncancelable operating leases was $1.2 million, $1.2 million and $867,000 for the years ended December 31, 2008, 2009 and 2010.

We lease a portion of our property and equipment under capital leases, which include options allowing us to purchase the equipment at the end of the lease term.

Future minimum lease payments under noncancelable operating and capital leases as of December 31, 2010 are as follows:

	Operating	Capital
	(In thousands)	
2011	$580	$227
2012	538	190
2013	514	112

2014	514	45
2015	514	19
Thereafter	343	—
Total minimum lease payments	$3,003	593
Less: Portion representing interest		(100)
Present value of capital lease obligations		493
Less: Current portion		(177)
Capital lease obligations, net of current portion		$316

Obligations with Third-Party Manufacturers

We manufacture products with a third-party manufacturer under recurring one year agreements. As of December 31, 2010, we were committed to purchase $11.2 million of inventory. Pursuant to an agreement with one of our suppliers, we have committed to purchase a minimum of $120,000 of inventory production services per month through September 2011.

13. Segment Reporting

Operating segments are defined as components of an enterprise for which separate financial information is available and evaluated regularly by the chief operating decision-maker, or decision-making group, in deciding how to allocate resources and in assessing performance. We are organized as, and operate in, one reportable segment: the development and sale of UHF Gen2 products. Our chief operating decision-maker is the executive team, led by our chief executive officer. Our executive team regularly reviews financial information presented on a total company basis, accompanied by information about revenue and direct material gross margin by product family for purposes of monitoring our product mix impact on total gross margin. Our executive team evaluates performance based primarily on total revenue. Our assets are primarily located in the United States and not allocated to any specific geographic region. Therefore, geographic information is presented only for total revenue. All of our long-lived assets are located in the United States.

The following table is based on the geographic location of our VARs, inlay manufacturers, reader OEMs, distributors or end users who purchased products and services directly from us. For sales to our resellers and distributors, their geographic location may be different from the geographic locations of the ultimate end users. Sales by geography were as follows:

	Year Ended December 31,			Three Months Ended March 31,	
	2008	2009	2010	2010	2011
	(In thousands)			(Unaudited)	
Americas	$20,517	$15,685	$19,151	$2,790	$5,661
Asia Pacific	2,030	3,161	8,729	1,512	3,843
Europe, Middle East and Africa	2,496	1,970	3,917	838	2,761
Total revenue	$25,043	$20,816	$31,797	$5,140	$12,265

Total revenue in the United States was $20.5 million, $15.1 million, $18.6 million, $2.7 million and $5.3 million for 2008, 2009, 2010 and the three months ended March 31,2010 and 2011, respectively.

14. Retirement Plans

In 2001, we adopted a salary deferral 401(k) plan for our employees. The plan allows employees to contribute a percentage of their pretax earnings annually, subject to limitations imposed by the Internal Revenue Service. The plan also allows us to make a matching contribution, subject to certain limitations. To date, we have not made any contributions to the plan.

15. Subsequent Events

We evaluated events that occurred between the end of the most recent fiscal year and April 21, 2011, the date the financial statements were issued.

Part Ii

Information Not Required in the Prospectus

Item 13. Other Expenses of Issuance and Distribution.

Estimated expenses, other than underwriting discounts and commissions, payable by the registrant in connection with the sale of the common stock being registered under this registration statement are as follows:

	Amount to be Paid
SEC registration fee	$11,610

FINRA filing fee	10,500
Exchange listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue Sky fees and expenses (including legal fees)	*
Transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	$*

* To be completed by amendment

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in our best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The Delaware General Corporation Law further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise. The certificate of incorporation of the registrant to be in effect upon the completion of this offering provides that the indemnification of the registrant's directors and officers to the fullest extent permitted under the Delaware General Corporation Law. In addition, the bylaws of the registrant to be in effect upon the completion of this offering require the registrant to fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was a director, or officer of the registrant, or is or was a director or officer of the registrant serving at the registrant's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, to the fullest extent permitted by applicable law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except (1) for any breach of the director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for payments of unlawful dividends or unlawful stock repurchases or redemptions or (4) for any transaction from which the director derived an improper personal benefit. The registrant's certificate of incorporation to be in effect upon the completion of this offering provides that the registrant's directors shall not be personally liable to it or its stockholders for monetary damages for breach of fiduciary duty as a director and that if the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the registrant's directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts As permitted by Delaware General Corporation Law, the registrant has entered into separate indemnification agreements with each of the registrant's directors and certain of the registrant's officers which require the registrant, among other things, to indemnify them against certain liabilities which may arise by reason of their status as directors, officers or certain other employees.

The registrant expects to obtain and maintain insurance policies under which its directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities which might be imposed as a result of, actions, suits or proceedings to which they are parties by reason of being or having been directors or officers. The coverage provided by these policies may apply whether or not the registrant would have the power to indemnify such person against such liability under the provisions of the Delaware General Corporation Law.

These indemnification provisions and the indemnification agreements entered into between the registrant and the registrant's officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act of 1933.

The underwriting agreement between the registrant and the underwriters filed as Exhibit 1.1 to this registration statement provides for the indemnification by the underwriters of the registrant's directors and officers and certain controlling persons against specified liabilities, including liabilities under the Securities Act with respect to information provided by the underwriters specifically for inclusion in the registration statement.

Item 15. Recent Sales of Unregistered Securities.

The following list sets forth information regarding all unregistered securities sold by us in the past three years. No underwriters were involved in the sales and the certificates representing the securities sold and issued contain legends restricting transfer of the securities without registration under the Securities Act or an applicable exemption from registration.

(1)	From April 9, 2008 through March 31, 2011, we granted options under our 2000 Stock Plan to purchase an aggregate of 15,259,201 shares of common stock to employees, consultants and directors, having exercise prices ranging from $0.05 to $0.30 per share. Of these, options to purchase 2,254,734 shares of common stock had been exercised for aggregate consideration of $294,593.54, at exercise prices ranging from $0.05 to $0.30 per share. As of March 31, 2011, we cancelled options to purchase 11,356,386 shares of common stock.
(2)	From the inception of the 2010 Equity Incentive Plan on March 31, 2010 through March 31, 2011, we granted options under our 2010 Equity Incentive Plan to purchase an aggregate of 6,408,500 shares of common stock to employees, consultants and directors, having exercise prices ranging from $0.07 to $0.18 per share. Of these, options to purchase 301,145 shares of common stock had been exercised for aggregate consideration of $40,168.05, at exercise prices ranging from $0.07 to $0.18 per share. As of March 31, 2011, we cancelled options to purchase 15,668 shares of common stock.
(3)	On July 3, 2008, we issued and sold an aggregate of 4,734,553 shares of common stock and 4,006,160 shares of Series E preferred stock to one corporation in connection with an asset purchase.
(4)	On September 23, 2009, as part of a stock option exchange program, we granted to 37 of our employees, directors and consultants under our 2000 Stock Plan, options to purchase an aggregate of 6,576,165 shares of our common stock at an exercise price of $0.05 per share in exchange for the cancellation by such parties of stock options to purchase an equal number of shares of our common stock that were previously outstanding under our 2000 Stock Option Plan.
(5)	On June 2, 2010, in connection with the entry into the primary loan and security agreements between us and Silicon Valley Bank, we issued a warrant to purchase 24,059 shares of our Series E preferred stock to Silicon Valley Bank at an exercise price of $2.286 per share.
(6)	On June 30, 2010, we issued and sold subordinated secured convertible promissory notes with an aggregate principal amount of $4,316,837 and warrants to purchase an aggregate of 584,240 shares of Series E preferred stock at an exercise price of $2.286 per share to a total of 30 accredited investors, all of whom were our existing investors and had a pre-existing relationship with us.
(7)	On July 1, 2010, we issued and sold subordinated secured convertible promissory notes with an aggregate principal amount of $1,302,824 and warrants to purchase an aggregate of 258,461 shares of Series E preferred stock at an exercise price of $2.286 per share to three accredited investors, all of whom were our existing investors and had a pre-existing relationship with us.
(8)	On July 6, 2010, we issued and sold subordinated secured convertible promissory notes with an aggregate principal amount of $157,072 and a warrant to purchase an aggregate of 20,613 shares of Series E preferred stock at an exercise price of $2.286 per share to one accredited investor who was one of our existing investors and had a pre-existing relationship with us.
(9)	On July 13, 2010, we issued and sold subordinated secured convertible promissory notes with an aggregate principal amount of $3,352 and a warrant to purchase an aggregate of 439 shares of Series E preferred stock at an exercise price of $2.286 per share to one accredited investor who was one of our existing investors and had a pre-existing relationship with us.
(10)	On July 16, 2010, we issued and sold subordinated secured convertible promissory notes with an aggregate principal amount of $205,496 and a warrant to purchase an aggregate of 26,968 shares of Series E preferred stock at an exercise price of $2.286 per share to one accredited investor who was one of our existing investors and had a pre-existing relationship with us.
(11)	On February 2, 2011, in connection with amendments of the loan and security agreements between us and Silicon Valley Bank, we issued a warrant to purchase 17,498 shares of our Series E preferred stock to Silicon Valley Bank at an exercise price of $2.286 per share.
(12)	On March 25, 2011, in connection with the entry into the mezzanine loan and security agreement between us and Silicon Valley Bank, we issued a warrant to purchase 300,000 shares of our common stock to Silicon Valley Bank at an exercise price of $0.21 per share.

The offers, sales and issuances of the securities described in Items 15(1) and 15(2) were exempt from registration under the Securities Act under either (1) Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or (2) Section 4(2) of the Securities Act as transactions by an issuer not involving any public offering. The recipients of such securities were the registrant's employees, consultants or directors and received the securities under the registrant's 2000 Stock Plan or 2010 Equity Incentive Plan. The recipients of securities in each of these transactions represented their intention to acquire the securities for investment only and not with view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions.

The offers, sales, and issuances of the securities described in Items 15(3) through (12) were exempt from registration under the Securities Act under Section 4(2) of the Securities Act or Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited person and had adequate access, through employment, business or other relationships, to information about the registrant.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

ExhibitNumber	Description
1.1*	Form of Underwriting Agreement
3.1*	Form of Amended and Restated Certificate of Incorporation, to be effective upon completion of the offering
3.2*	Form of Amended and Restated Bylaws, to be effective upon closing of the offering
4.1*	Specimen Common Stock Certificate of the registrant
4.2	Amended and Restated Investors' Rights Agreement, dated July 3, 2008, by and among the registrant and the investors named therein
4.3	Amendment No. 2 to Investors' Rights Agreement, dated February 8, 2011, by and among the registrant and the investors named therein
4.4	Amendment No. 3 to Investors' Rights Agreement, dated March 25, 2011, by and among the registrant and the investors named therein
4.5	Amendment No. 4 to Investors' Rights Agreement, dated April 20, 2011, by and among the registrant and the investors named therein

4.6	Form of Subordinated Secured Convertible Promissory Note dated June 30, 2010
4.7	Warrant to purchase Series E preferred stock, issued to Horizon Technology Funding Company V LLC on October 3, 2007
4.8	Warrant to purchase Series E preferred stock, issued to Silicon Valley Bank on June 2, 2010
4.9	Warrant to purchase Series E preferred stock, issued to Silicon Valley Bank on February 2, 2011
4.10	Warrant to purchase common stock, issued to Silicon Valley Bank on March 25, 2011
4.11	Form of Warrant to Purchase Shares of Preferred Stock dated June 30, 2010
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1	Form of Director and Executive Officer Indemnification Agreement
10.2	2000 Stock Plan, as amended
10.3	Form of Stock Option Agreement under the 2000 Stock Plan
10.4	2010 Equity Incentive Plan, as amended
10.5	Form of Stock Option Agreement under the 2010 Equity Incentive Plan
10.6	Form of Early Exercise Stock Option Agreement under the 2010 Equity Incentive Plan
10.7*	2011 Equity Incentive Plan
10.8*	Form of Agreement under the 2011 Equity Incentive Plan
10.9*	2011 Employee Stock Purchase Plan, to be in effect upon the closing of this offering
10.10+	Amended and Restated Colleran Employment Agreement, dated December 19, 2008, between the registrant and William T. Colleran, Ph.D.
10.11+	First Amendment to Colleran Employment Agreement, dated February 19, 2009, between the registrant and William T. Colleran, Ph.D.
10.12+	Fein Employment Agreement, dated December 23, 2009, between the registrant and Evan Fein
10.13+	Amended and Restated Diorio Employment Agreement, dated December 19, 2008, between the registrant and Chris Diorio, Ph.D.
10.14+	First Amendment to Diorio Employment Agreement, dated February 20, 2009, between the registrant and Chris Diorio, Ph.D.

ExhibitNumber	Description
10.15+	Amended and Restated Voit Employment Agreement, dated December 19, 2008, between the registrant and Steve Voit
10.16+	First Amendment to Voit Employment Agreement, dated February 19, 2009, between the registrant and Steve Voit
10.17+	Second Amendment to Voit Employment Agreement, dated January 5, 2010, between the registrant and Steve Voit
10.18+	Third Amendment to Voit Employment Agreement, dated April 16, 2011 between the registrant and Steve Voit
10.19+	Employment Agreement, dated March 10, 2006, between the registrant and John Quist
10.20+	Amendment to John Quist Employment Agreement, dated March 31, 2011, between the registrant and John Quist
10.21	Office Lease, dated November 17, 2004, by and between the registrant and Bedford Property Investors, Inc.
10.22	First Amendment to Lease, dated July 21, 2006, by and between the registrant and Fremont Lake Union Center LLC
10.23	Second Amendment to Lease, dated December 11, 2009, by and between the registrant and Fremont Lake Union Center LLC
10.24	Loan and Security Agreement, dated May 7, 2010, by and between the registrant and Silicon Valley Bank
10.25	Loan and Security Agreement (EX-IM Loan Facility), dated May 7, 2010, by and between the registrant and Silicon Valley Bank
10.26	First Amendment to Loan and Security Agreement, dated February 2, 2011, by and between the registrant and Silicon Valley Bank
10.27	First Amendment to Loan and Security Agreement (EX-IM Loan Facility), dated February 2, 2011, by and between the registrant and Silicon Valley Bank
10.28	Second Amendment to Loan and Security Agreement, dated March 25, 2011, by and between the registrant and Silicon Valley Bank
10.29	Loan and Security Agreement, dated March 25, 2011, by and between the registrant and Silicon Valley Bank
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)
24.1	Powers of Attorney (included in page II-7 to this registration statement)

* To be filed by amendment.

\+ Indicates a management contract or compensatory plan.

(b) Financial statement schedules.

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. If a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suite or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Signatures

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Seattle, State of Washington, on April 21, 2011.

IMPINJ, INC.	
By:	/s/ William T. Colleran
	William T. Colleran, Ph.D.
	President and Chief Executive Officer

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints William T. Colleran, Ph.D. and Evan Fein as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities (including his capacity as a director and/or officer of Impinj, Inc.) to sign any or all amendments (including post-effective amendments) to this registration statement and any and all additional registration statements pursuant to Rule 462(b) of the Securities Act of 1933, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as they, he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agents or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated below:

Signature	**Title**	**Date**
/s/ William T. Colleran William T. Colleran, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	April 21, 2011
/s/ Evan Fein Evan Fein	Chief Financial Officer (Principal Accounting and Financial Officer)	April 21, 2011
/s/ Chris Diorio Chris Diorio, Ph.D.	Chairman of the Board and Directors	April 21, 2011
/s/ Tom A. Alberg Tom A. Alberg	Director	April 21, 2011
/s/ Stephen D. Arnold Stephen D. Arnold, Ph.D.	Director	April 21, 2011
/s/ Clinton Bybee Clinton Bybee	Director	April 21, 2011

Signature	**Title**	**Date**
/s/ Gregory Sessler Gregory Sessler	Director	April 21, 2011
/s/ Albert Yu Albert Yu, Ph.D.	Director	April 21, 2011

Exhibit Index

ExhibitNumber	**Description**
1.1*	Form of Underwriting Agreement
3.1*	Form of Amended and Restated Certificate of Incorporation, to be effective upon completion of the offering
3.2*	Form of Amended and Restated Bylaws, to be effective upon closing of the offering
4.1*	Specimen Common Stock Certificate of the registrant

4.2	Amended and Restated Investors' Rights Agreement, dated July 3, 2008, by and among the registrant and the investors named therein
4.3	Amendment No. 2 to Investors' Rights Agreement, dated February 8, 2011, by and among the registrant and the investors named therein
4.4	Amendment No. 3 to Investors' Rights Agreement, dated March 25, 2011, by and among the registrant and the investors named therein
4.5	Amendment No. 4 to Investors' Rights Agreement, dated April 20, 2011, by and among the registrant and the investors named therein
4.6	Form of Subordinated Secured Convertible Promissory Note dated June 30, 2010
4.7	Warrant to purchase Series E preferred stock, issued to Horizon Technology Funding Company V LLC on October 3, 2007
4.8	Warrant to purchase Series E preferred stock, issued to Silicon Valley Bank on June 2, 2010
4.9	Warrant to purchase Series E preferred stock, issued to Silicon Valley Bank on February 2, 2011
4.10	Warrant to purchase common stock, issued to Silicon Valley Bank on March 25, 2011
4.11	Form of Warrant to Purchase Shares of Preferred Stock of the registrant dated June 30, 2010
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1	Form of Director and Executive Officer Indemnification Agreement
10.2	2000 Stock Plan, as amended
10.3	Form of Stock Option Agreement under the 2000 Stock Plan
10.4	2010 Equity Incentive Plan, as amended
10.5	Form of Stock Option Agreement under the 2010 Equity Incentive Plan
10.6	Form of Early Exercise Stock Option Agreement under the 2010 Equity Incentive Plan
10.7*	2011 Equity Incentive Plan
10.8*	Form of Agreement under the 2011 Equity Incentive Plan
10.9*	2011 Employee Stock Purchase Plan, to be in effect upon the closing of this offering
10.10+	Amended and Restated Colleran Employment Agreement, dated December 19, 2008, between the registrant and William T. Colleran, Ph.D.
10.11+	First Amendment to Colleran Employment Agreement, dated February 19, 2009, between the registrant and William T. Colleran, Ph.D.
10.12+	Fein Employment Agreement, dated December 23, 2009, between the registrant and Evan Fein
10.13+	Amended and Restated Diorio Employment Agreement, dated December 19, 2008, between the registrant and Chris Diorio, Ph.D.
10.14+	First Amendment to Diorio Employment Agreement, dated February 20, 2009, between the registrant and Chris Diorio, Ph.D.
10.15+	Amended and Restated Voit Employment Agreement, dated December 19, 2008, between the registrant and Steve Voit
10.16+	First Amendment to Voit Employment Agreement, dated February 19, 2009, between the registrant and Steve Voit
10.17+	Second Amendment to Voit Employment Agreement, dated January 5, 2010, between the registrant and Steve Voit
10.18+	Third Amendment to Voit Employment Agreement, dated April 16, 2011 between the registrant and Steve Voit
10.19+	Employment Agreement, dated March 10, 2006, between the registrant and John Quist

ExhibitNumber	Description
10.20+	Amendment to John Quist Employment Agreement, dated March 31, 2011, between the registrant and John Quist
10.21	Office Lease, dated November 17, 2004, by and between the registrant and Bedford Property Investors, Inc.
10.22	First Amendment to Lease, dated July 21, 2006, by and between the registrant and Fremont Lake Union Center LLC
10.23	Second Amendment to Lease, dated December 11, 2009, by and between the registrant and Fremont Lake Union Center LLC
10.24	Loan and Security Agreement, dated May 7, 2010, by and between the registrant and Silicon Valley Bank
10.25	Loan and Security Agreement (EX-IM Loan Facility), dated May 7, 2010, by and between the registrant and Silicon Valley Bank
10.26	First Amendment to Loan and Security Agreement, dated February 2, 2011, by and between the registrant and Silicon Valley Bank
10.27	First Amendment to Loan and Security Agreement (EX-IM Loan Facility), dated February 2, 2011, by and between the registrant and Silicon Valley Bank
10.28	Second Amendment to Loan and Security Agreement, dated March 25, 2011, by and between the registrant and Silicon Valley Bank
10.29	Loan and Security Agreement, dated March 25, 2011, by and between the registrant and Silicon Valley Bank
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)
24.1	Powers of Attorney (included in page II-7 to this registration statement)

* To be filed by amendment.

\+ Indicates a management contract or compensatory plan.