

PIXELWORKS, INC  
Form 10-Q  
July 31, 2015  
Table of Contents

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

---

FORM 10-Q

---

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2015

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number: 000-30269

---

PIXELWORKS, INC.  
(Exact name of registrant as specified in its charter)

---

OREGON 91-1761992  
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

224 Airport Parkway, Suite 400 95110  
San Jose, California  
(Address of principal executive offices) (Zip Code)  
(408) 200-9200  
(Registrant's telephone number, including area code)

---

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

Number of shares of Common Stock, par value \$0.001 per share, outstanding as of July 30, 2015: 23,627,145.



Table of Contents

PIXELWORKS, INC.  
FORM 10-Q  
FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2015  
TABLE OF CONTENTS

	<u>PART I – FINANCIAL INFORMATION</u>	
Item 1.	<u>Financial Statements</u>	<u>3</u>
	<u>Condensed Consolidated Balance Sheets</u>	<u>3</u>
	<u>Condensed Consolidated Statements of Operations</u>	<u>4</u>
	<u>Condensed Consolidated Statements of Cash Flows</u>	<u>5</u>
	<u>Notes to Condensed Consolidated Financial Statements</u>	<u>6</u>
Item 2.	<u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>13</u>
Item 3.	<u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>18</u>
Item 4.	<u>Controls and Procedures</u>	<u>18</u>
	<u>PART II – OTHER INFORMATION</u>	
Item 1.	<u>Legal Proceedings</u>	<u>20</u>
Item 1A.	<u>Risk Factors</u>	<u>20</u>
Item 6.	<u>Exhibits</u>	<u>36</u>
	<u>SIGNATURE</u>	<u>37</u>

Table of Contents

## PART I – FINANCIAL INFORMATION

## Item 1. Financial Statements.

## PIXELWORKS, INC.

## CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands)

(Unaudited)

	June 30, 2015	December 31, 2014
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$14,432	\$17,926
Accounts receivable, net	4,733	4,648
Inventories	2,875	2,898
Prepaid expenses and other current assets	1,239	888
Total current assets	23,279	26,360
Property and equipment, net	7,030	6,402
Other assets, net	926	1,382
Total assets	\$31,235	\$34,144
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$4,004	\$3,154
Accrued liabilities and current portion of long-term liabilities	9,185	8,539
Current portion of income taxes payable	187	197
Short-term line of credit	3,000	3,000
Total current liabilities	16,376	14,890
Long-term liabilities, net of current portion	919	1,476
Income taxes payable, net of current portion	2,079	2,094
Total liabilities	19,374	18,460
Commitments and contingencies (Note 9)		
Shareholders' equity:		
Preferred stock	—	—
Common stock	371,590	369,253
Accumulated other comprehensive income	11	11
Accumulated deficit	(359,740)	(353,580)
Total shareholders' equity	11,861	15,684
Total liabilities and shareholders' equity	\$31,235	\$34,144
See accompanying notes to condensed consolidated financial statements.		

Table of Contents

## PIXELWORKS, INC.

## CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Revenue, net	\$15,078	\$15,166	\$29,470	\$28,707
Cost of revenue (1)	7,844	7,505	15,269	13,051
Gross profit	7,234	7,661	14,201	15,656
Operating expenses:				
Research and development (2)	6,105	5,887	12,423	12,272
Selling, general and administrative (3)	3,584	3,709	7,471	7,758
Total operating expenses	9,689	9,596	19,894	20,030
Loss from operations	(2,455)	(1,935)	(5,693)	(4,374)
Interest expense and other, net	(105)	(130)	(212)	(252)
Loss before income taxes	(2,560)	(2,065)	(5,905)	(4,626)
Provision for income taxes	236	317	255	263
Net loss	\$(2,796)	\$(2,382)	\$(6,160)	\$(4,889)
Net loss per share - basic and diluted	\$(0.12)	\$(0.11)	\$(0.26)	\$(0.22)
Weighted average shares outstanding - basic and diluted	23,539	22,667	23,434	22,437
(1) Includes:				
Stock-based compensation	\$42	\$41	\$95	\$130
Additional amortization of non-cancelable prepaid royalty	—	35	—	91
(2) Includes stock-based compensation	429	413	918	1,239
(3) Includes stock-based compensation	422	487	958	1,275

See accompanying notes to condensed consolidated financial statements.

Table of Contents

PIXELWORKS, INC.  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (In thousands)  
 (Unaudited)

	Six Months Ended June 30,	
	2015	2014
Cash flows from operating activities:		
Net loss	\$(6,160	) \$(4,889
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	2,139	2,285
Stock-based compensation	1,971	2,644
Reversal of uncertain tax positions	(209	) (270
Deferred income tax expense	—	160
Other	52	44
Changes in operating assets and liabilities:		
Accounts receivable, net	(85	) 637
Inventories	23	(1,356
Prepaid expenses and other current and long-term assets, net	(144	) 1,770
Accounts payable	(813	) 1,066
Accrued current and long-term liabilities	1,192	6
Income taxes payable	184	245
Net cash provided by (used in) operating activities	(1,850	) 2,342
Cash flows from investing activities:		
Purchases of property and equipment	(533	) (2,196
Purchases of licensed technology	(55	) —
Net cash used in investing activities	(588	) (2,196
Cash flows from financing activities:		
Payments on asset financings	(1,422	) (1,037
Proceeds from issuances of common stock	366	991
Net cash used in financing activities	(1,056	) (46
Net increase (decrease) in cash and cash equivalents	(3,494	) 100
Cash and cash equivalents, beginning of period	17,926	20,805
Cash and cash equivalents, end of period	\$14,432	\$20,905
See accompanying notes to condensed consolidated financial statements.		

Table of Contents

PIXELWORKS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(In thousands, except per share data)

(Unaudited)

NOTE 1: BASIS OF PRESENTATION

Nature of Business

Pixelworks designs, develops and markets video and pixel processing semiconductors, intellectual property cores, software and custom ASIC solutions for high-end digital video applications. Our products allow manufacturers and developers of digital display and projection devices to manufacture screens of all sizes that display the highest video quality with minimum power consumption. Our core video display processing technology intelligently processes video signals from a variety of sources and optimizes the image for the viewer. The continued advancement of display technology and rapid growth of video consumption on digital delivery systems and mobile applications has increased the demand for video display processing technology in recent years. Our products are used in a range of devices from large flat panel displays to small low power mobile applications. Our products are designed to reduce overall system power requirements and reduce costs for our customers by minimizing bandwidth. Our primary target markets include digital projection systems, digital televisions, Ultrabook™ devices, tablets, and smartphones.

As of June 30, 2015, we had an intellectual property portfolio of 132 patents related to the visual display of digital image data. Pixelworks was founded in 1997 and is incorporated under the laws of the state of Oregon.

Condensed Consolidated Financial Statements

The financial information included herein for the three and six month periods ended June 30, 2015 and 2014 is prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and is unaudited. Such information reflects all adjustments, consisting of normal recurring adjustments, that are, in the opinion of management, necessary for a fair presentation of the Company's condensed consolidated financial statements for these interim periods. The financial information as of December 31, 2014 is derived from our audited consolidated financial statements and notes thereto for the fiscal year ended December 31, 2014, included in Item 8 of our Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 4, 2015, and should be read in conjunction with such consolidated financial statements.

The results of operations for the three and six month periods ended June 30, 2015 are not necessarily indicative of the results expected for future periods or for the entire fiscal year ending December 31, 2015.

Comprehensive Income (Loss)

The Company reports comprehensive income (loss) and its components following guidance set forth by the Financial Accounting Standards Board (the "FASB"), Accounting Standards Codification section 220-10, Comprehensive Income, which establishes standards for the reporting and display of comprehensive income or loss and its components in the financial statements. During the three and six month periods ended June 30, 2015 and 2014, aside from our net loss, there were no other items of comprehensive income or loss and therefore the Company has not included a statement of comprehensive income (loss) in our interim condensed consolidated financial statements.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09"), which requires that an entity recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. ASU 2014-09 allows for either full retrospective or modified retrospective adoption and will become effective for the Company on January 1, 2018. The Company is evaluating the alternative transition methods and the potential effects of the adoption of this update on its financial position, results of operations and cash flows.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and judgments that affect amounts reported in the financial statements and accompanying notes. Our significant estimates and judgments include those related to revenue recognition, product returns, warranty

obligations, bad debts, inventories, property and equipment, impairment of long-lived assets, valuation of share-based payments, income taxes, litigation and other contingencies. The actual results experienced could differ materially from our estimates.



Table of Contents

## NOTE 2: BALANCE SHEET COMPONENTS

## Accounts Receivable, Net

Accounts receivable are recorded at invoiced amount and do not bear interest when recorded or accrue interest when past due. Accounts receivable are stated net of an allowance for doubtful accounts, which is maintained for estimated losses that may result from the inability of our customers to make required payments.

Accounts receivable consists of the following:

	June 30, 2015	December 31, 2014
Accounts receivable, gross	\$4,964	\$4,949
Less: allowance for doubtful accounts	(231	) (301
Accounts receivable, net	\$4,733	\$4,648

The following is the change in our allowance for doubtful accounts:

	Six Months Ended	
	June 30, 2015	2014
Balance at beginning of period	\$301	\$315
Reductions credited	(4	) (5
Accounts written-off, net of recoveries	(66	) —
Balance at end of period	\$231	\$310

## Inventories

Inventories consist of finished goods and work-in-process, and are stated at the lower of standard cost (which approximates actual cost on a first-in, first-out basis) or market (net realizable value).

Inventories consist of the following:

	June 30, 2015	December 31, 2014
Finished goods	\$2,098	\$1,697
Work-in-process	777	1,201
Inventories	\$2,875	\$2,898

Table of Contents

## Property and Equipment, Net

Property and equipment consists of the following:

	June 30, 2015	December 31, 2014
Gross carrying amount	\$29,853	\$27,573
Less: accumulated depreciation and amortization	(22,823	) (21,171
Property and equipment, net	\$7,030	\$6,402

## Accrued Liabilities and Current Portion of Long-Term Liabilities

Accrued liabilities and current portion of long-term liabilities consist of the following:

	June 30, 2015	December 31, 2014
Accrued payroll and related liabilities	\$2,891	\$2,385
Accrued commissions and royalties	2,194	2,055
Accrued interest payable	1,537	1,383
Current portion of accrued liabilities for asset financings	967	1,744
Deferred revenue	153	30
Reserve for warranty returns	32	105
Other	1,411	837
Accrued liabilities and current portion of long-term liabilities	\$9,185	\$8,539

The following is the change in our reserve for warranty returns:

	Six Months Ended	
	June 30, 2015	2014
Reserve for warranty returns:		
Balance at beginning of period	\$105	\$329
Benefit	(65	) (53
Charge-offs	(8	) (22
Balance at end of period	\$32	\$254

## Short-Term Line of Credit

On December 21, 2010, we entered into a Loan and Security Agreement (the "Revolving Loan Agreement") with Silicon Valley Bank (the "Bank"). On December 14, 2012, we and the Bank entered into Amendment No. 1 to the Revolving Loan Agreement (the "Amendment No. 1"). The Revolving Loan Agreement, as amended, provides a secured working capital-based revolving line of credit (the "Revolving Line") in an aggregate amount of up to the lesser of (i) \$10,000, or (ii) \$1,000 plus 80% of eligible domestic accounts receivable and certain foreign accounts receivable. On December 4, 2013, we and the Bank entered into Amendment No. 2 (the "Amendment No. 2") to the Revolving Loan Agreement which changes the maturity date of the Revolving Line to January 1, 2016. The maturity date was previously December 14, 2014, as provided by Amendment No. 1. In addition, the Revolving Loan Agreement, as amended, provides for non-formula advances of up to \$10,000 which may be made solely during the last five business days of any fiscal month or quarter and which must be repaid by the Company on or before the fifth business day after the applicable fiscal month or quarter end. Due to their repayment terms, non-formula advances do not provide the Company with usable liquidity.

The Revolving Loan Agreement, as amended, contains customary affirmative and negative covenants as well as customary events of default. The occurrence of an event of default could result in the acceleration of the Company's obligations under the Revolving Loan Agreement, as amended, and an increase to the applicable interest rate, and would permit the Bank to exercise remedies with respect to its security interest. As of June 30, 2015, we were in compliance with all of the terms of the Revolving Loan Agreement, as amended.

Short-term borrowings outstanding under the Revolving Line consisted of non-formula advances of \$3,000 as of June 30, 2015 and as of December 31, 2014, both advances were repaid within required terms. The weighted-average interest rate on short-term borrowings outstanding as of June 30, 2015 and December 31, 2014 was 3.5%.

Table of Contents**NOTE 3: FAIR VALUE MEASUREMENTS**

Fair value is defined as 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. Three levels of inputs may be used to measure fair value:

Level 1: Valuations based on quoted prices in active markets for identical assets and liabilities.

Level 2: Valuations based on inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Valuations based on unobservable inputs in which there is little or no market data available, which require the reporting entity to develop its own assumptions.

The following table presents information about our assets measured at fair value on a recurring basis in the condensed consolidated balance sheets as of June 30, 2015 and December 31, 2014:

	Level 1	Level 2	Level 3	Total
As of June 30, 2015:				
Money market funds	\$12,989	\$—	\$—	\$12,989
As of December 31, 2014:				
Money market funds	\$17,480	\$—	\$—	\$17,480

We primarily use the market approach to determine the fair value of our financial assets. The fair value of our current assets and liabilities, including accounts receivable and accounts payable approximates the carrying value due to the short-term nature of these balances. We have currently chosen not to elect the fair value option for any items that are not already required to be measured at fair value in accordance with U.S. GAAP.

**NOTE 4: INCOME TAXES**

The provision for income taxes during the 2015 and 2014 periods is primarily comprised of current and deferred tax expense in profitable cost-plus foreign jurisdictions, accruals for tax contingencies in foreign jurisdictions and benefits for the reversal of previously recorded foreign tax contingencies due to the expiration of the applicable statutes of limitation. We recorded a benefit for the reversal of previously recorded foreign tax contingencies of \$209 and \$270 during the first half of 2015 and 2014, respectively.

As we do not believe that it is more likely than not that we will realize a benefit from our U.S. net deferred tax assets, including our U.S. net operating losses, we continue to provide a full valuation allowance against essentially all of those assets, therefore, we do not incur significant U.S. income tax expense or benefit. We have not recorded a valuation allowance against our other foreign net deferred tax assets as we believe that it is more likely than not that we will realize a benefit from those assets.

As of June 30, 2015 and December 31, 2014, the amount of our uncertain tax positions was a liability of \$1,630 and \$1,712, respectively. A number of years may elapse before an uncertain tax position is resolved by settlement or statute of limitation. Settlement of any particular position could require the use of cash. If the uncertain tax positions we have accrued for are sustained by the taxing authorities in our favor, the reduction of the liability will reduce our effective tax rate. We reasonably expect reductions in the liability for unrecognized tax benefits and interest and penalties of approximately \$293 within the next twelve months due to the expiration of statutes of limitation in foreign jurisdictions. We recognize interest and penalties related to uncertain tax positions in income tax expense in our consolidated statements of operations.

Table of Contents

## NOTE 5: EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted net loss per share:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
Net loss	\$(2,796	) \$(2,382	) \$(6,160	) \$(4,889
Weighted average shares outstanding - basic and diluted	23,539	22,667	23,434	22,437
Net loss per share - basic and diluted	\$(0.12	) \$(0.11	) \$(0.26	) \$(0.22

The following weighted average shares were excluded from the calculation of diluted net loss per share as their effect would have been anti-dilutive:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
Employee equity incentive plans	4,197	4,223	4,200	4,425

Potentially dilutive common shares from employee equity incentive plans are determined by applying the treasury stock method to the assumed exercise of outstanding stock options, the assumed vesting of outstanding restricted stock units, and the assumed issuance of common stock under the employee stock purchase plan.

## NOTE 6: SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION

Supplemental disclosure of cash flow information is as follows:

	Six Months Ended	
	June 30,	
	2015	2014
Cash paid during the period for:		
Income taxes	\$226	\$81
Interest	74	73
Non-cash investing and financing activities:		
Acquisitions of property and equipment and other assets under extended payment terms	\$143	\$2,825

Table of Contents

## NOTE 7: SEGMENT INFORMATION

We have identified a single operating segment: the design and development of integrated circuits for use in electronic display devices. The majority of our assets are located in the United States.

## Geographic Information

Revenue by geographic region, is as follows:

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2015	2014	2015	2014
Japan	\$12,725	\$8,647	\$24,540	\$14,073
Taiwan	1,601	3,239	3,080	4,953
Korea	265	775	586	2,371
Europe	156	507	339	1,021
China	139	1,413	419	2,379
United States	36	145	69	3,191
Other	156	440	437	719
	\$15,078	\$15,166	\$29,470	\$28,707

## Significant Customers

The percentage of revenue attributable to our distributors, top five end customers, and individual distributors or end customers that represented 10% or more of revenue in at least one of the periods presented, is as follows:

	Three Months Ended		Six Months Ended		
	June 30,		June 30,		
	2015	2014	2015	2014	
Distributors:					
All distributors	44	% 80	% 45	% 69	%
Distributor A	26	% 39	% 27	% 34	%
Distributor B	7	% 16	% 6	% 11	%
End customers: <sup>1</sup>					
Top five end customers	83	% 61	% 82	% 50	%
End customer A	51	% 10	% 49	% 6	%
End customer B	11	% 7	% 7	% 6	%
End customer C	8	% 10	% 9	% 11	%
End customer D	7	% 20	% 10	% 15	%
End customer E	5	% 14	% 3	% 10	%

<sup>1</sup> End customers include customers who purchase directly from us, as well as customers who purchase our products indirectly through distributors.

The following accounts represented 10% or more of total accounts receivable in at least one of the periods presented:

	June 30,	December 31,	
	2015	2014	
Account X	59	% 37	%
Account Y	11	% 15	%
Account Z	1	% 16	%

Table of Contents

NOTE 8: RISKS AND UNCERTAINTIES

Concentration of Suppliers

We do not own or operate a semiconductor fabrication facility and do not have the resources to manufacture our products internally. We rely on a limited number of foundries and assembly and test vendors to produce all of our wafers and for completion of finished products. We do not have any long-term agreements with any of these suppliers. In light of these dependencies, it is reasonably possible that failure to perform by one of these suppliers could have a severe impact on our results of operations. Additionally, the concentration of these vendors within Taiwan, the People's Republic of China and Singapore increases our risk of supply disruption due to natural disasters, economic instability, political unrest or other regional disturbances.

Risk of Technological Change

The markets in which we compete, or seek to compete, are subject to rapid technological change, frequent new product introductions, changing customer requirements for new products and features, and evolving industry standards. The introduction of new technologies and the emergence of new industry standards could render our products less desirable or obsolete, which could harm our business.

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist of cash equivalents and accounts receivable. We limit our exposure to credit risk associated with cash equivalent balances by holding our funds in high quality, highly liquid money market accounts. We limit our exposure to credit risk associated with accounts receivable by carefully evaluating creditworthiness before offering terms to customers.

NOTE 9: COMMITMENTS AND CONTINGENCIES

Indemnifications

Certain of our agreements include indemnification provisions for claims from third-parties relating to our intellectual property. It is not possible for us to predict the maximum potential amount of future payments or indemnification costs under these or similar agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. We have not made any payments under these agreements in the past, and as of June 30, 2015, we have not incurred any material liabilities arising from these indemnification obligations. In the future, however, such obligations could materially impact our results of operations.

Legal Proceedings

We are subject to legal matters that arise from time to time in the ordinary course of our business. Although we currently believe that resolving such matters, individually or in the aggregate, will not have a material adverse effect on our financial position, our results of operations, or our cash flows, these matters are subject to inherent uncertainties and our view of these matters may change in the future.

Table of Contents

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward-looking Statements

This Management's Discussion and Analysis of Financial Condition and Results of Operations contains "forward-looking statements" that are based on current expectations, estimates, beliefs, assumptions and projections about our business. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and the negative other variations of such words and similar expressions are intended to identify such forward-looking statements. These forward-looking statements include, but are not limited to, statements regarding: the anticipated features, benefits and market opportunities for our products; our technologies and intellectual property; our international operations; our strategy, including with respect to our intellectual property portfolio and research and development efforts and acquisition opportunities; our gross profit margin, including our expectations regarding gaining manufacturing efficiencies as products mature; our liquidity, capital resources and the sufficiency of our working capital and need for, or ability to secure, additional financing and the potential impact thereof; our contractual obligations, exchange rate and interest rate risks and off balance sheet arrangements; our income taxes, including our ability to realize the benefit of net deferred tax assets; accounting policies and use of estimates; our revenue, and the potential impact on our business of certain risks, including the concentration of our suppliers, risks of technological change, concentration of credit risk, our international operations, including in Asia, our indemnification obligations and litigation risks. These statements are not guarantees of future performance and involve certain risks and uncertainties that are difficult to predict and which may cause actual outcomes and results to differ materially from what is expressed or forecasted in such forward-looking statements. A detailed discussion of risks and uncertainties that could cause actual results and events to differ materially from such forward-looking statements is included in Part II, Item 1A of this Quarterly Report on Form 10-Q. These forward-looking statements speak only as of the date on which they are made, and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q. If we do update or correct one or more forward-looking statements, you should not conclude that we will make additional updates or corrections with respect thereto or with respect to other forward-looking statements. Except where the context otherwise requires, in this Quarterly Report on Form 10-Q, the "Company," "Pixelworks," "we," "us" and "our" refer to Pixelworks, Inc., an Oregon corporation, and its wholly-owned subsidiaries.

Overview

Pixelworks designs, develops and markets video and pixel processing semiconductors, intellectual property cores, software and custom ASIC solutions for high-end digital video applications. Our products allow manufacturers and developers of digital display and projection devices to manufacture screens of all sizes that display the highest video quality with minimum power consumption. Our core video display processing technology intelligently processes video signals from a variety of sources and optimizes the image for the viewer. The continued advancement of display technology and rapid growth of video consumption on digital delivery systems and mobile applications has increased the demand for video display processing technology in recent years. Our products can be used in a range of devices from large flat panel displays to small low power mobile applications. Our products are designed to reduce overall system power requirements and reduce costs for our customers by minimizing bandwidth, reducing panel costs and optimizing the video display pipeline efficiency. Our primary target markets include digital projection systems, digital televisions, Ultrabook™ devices, tablets, and smartphones.

As of June 30, 2015, we had an intellectual property portfolio of 132 patents related to the visual display of digital image data. We focus our research and development efforts on developing video enhancement solutions for our target markets that increase performance, video quality and device functionality while reducing power consumed. We seek to expand our technology portfolio through internal development and co-development with business partners, and we continually evaluate acquisition opportunities and other ways to leverage our technology into other high-value markets.





Table of Contents

## Results of Operations

## Revenue, net

Net revenue for the three and six month periods ended June 30, 2015 and 2014, was as follows (dollars in thousands):

	Three Months Ended			Six Months Ended		
	June 30,			June 30,		
	2015	2014	% Change	2015	2014	% Change
Revenue, net	\$15,078	\$15,166	(1)%	\$29,470	\$28,707	3%

Net revenue decreased \$0.1 million, or 1%, in the second quarter of 2015 compared to the second quarter of 2014 and increased \$0.8 million, or 3% in the first half of 2015 compared to the first half of 2014. Revenue related to integrated circuit ("IC") product sales was \$15.1 million for both the second quarter of 2015 and the second quarter of 2014 and was \$29.4 million and \$25.7 million for the first half of 2015 and 2014, respectively. Revenue related to licensing agreements was \$0.1 million and \$3.0 million for the second quarter and first half of 2014, respectively, and was negligible for the second quarter and first half of 2015.

IC product sales revenue in the second quarter of 2015 compared to the second quarter of 2014 reflected a 10% decrease in units sold offset by an 11% increase in average selling price ("ASP"). The increase in revenue related to IC product sales in the first half of 2015 compared to the first half of 2014, was due to a 7% increase in units sold and a 12% increase in ASP.

The decrease in units sold in the second quarter of 2015 compared to the second quarter of 2014 was due to a decrease in sales into the television and panel markets. The decrease in sales into the television and panel markets was also seen in the first half of 2015 compared to the first half of 2014, however, it was offset by an increase in sales into the digital projector market due to market share gains. The decrease in sales into the television and panel markets over both periods was due to a transition to sales into long-lived niche products. The increase in ASP in the 2015 periods compared to the 2014 periods was primarily due to decreased sales into the television and panel markets, which generally have lower ASP's than digital projector market products.

During the first half of 2014, we recorded approximately \$2.0 million of licensing revenue due to achieving milestones under a licensing agreement entered into during the third quarter of 2013 and we recorded approximately \$1.0 million of licensing revenue due to achieving the final milestone under a licensing agreement entered into during 2012.

Table of Contents

## Cost of revenue and gross profit

Cost of revenue and gross profit for the three and six month periods ended June 30, 2015 and 2014, was as follows (dollars in thousands):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2015	% of revenue	2014	% of revenue	2015	% of revenue	2014	% of revenue
Direct product costs and related overhead <sup>1</sup>	\$7,681	51 %	\$7,113	47 %	\$14,983	51 %	\$12,388	43 %
Inventory charges <sup>2</sup>	121	1	277	2	191	1	296	1
Licensing costs <sup>3</sup>	—	0	39	0	—	0	146	1
Other cost of revenue <sup>4</sup>	42	0	76	1	95	0	221	1
Total cost of revenue	\$7,844	52 %	\$7,505	49 %	\$15,269	52 %	\$13,051	45 %
Gross profit	\$7,234	48 %	\$7,661	51 %	\$14,201	48 %	\$15,656	55 %

<sup>1</sup> Includes purchased materials, assembly, test, labor, employee benefits and royalties, all of which are related to sales of IC products.

<sup>2</sup> Includes charges to reduce inventory to lower of cost or market.

<sup>3</sup> Includes direct labor costs and allocated overhead associated with licensing agreements.

<sup>4</sup> Includes stock-based compensation and additional amortization of a non-cancelable prepaid royalty.

Gross profit margin decreased to 48% of total revenue in the second quarter of 2015, down from 51% of total revenue in the second quarter of 2014. Gross profit margin decreased to 48% of total revenue in the first half of 2015, down from 55% of total revenue in the first half of 2014.

Excluding the impact of licensing revenue recorded in the second quarter of 2014, direct product costs and related overhead as a percentage of revenue increased approximately 3.7% in the second quarter of 2015 compared to the second quarter of 2014. Excluding the impact of licensing revenue recorded in the first half of 2014, direct product costs and related overhead as a percentage of revenue increased approximately 2.7% in the first half of 2015 compared to the first half of 2014.

The increase in direct product costs and related overhead as a percentage of revenue over both periods was primarily due to increased costs associated with manufacturing ramps in the digital projection market. We expect to gain manufacturing efficiencies as these products mature.

Pixelworks' gross profit margin is subject to variability based on changes in revenue levels, recognition of licensing revenue and licensing costs, product mix, average selling prices, startup costs, and the timing and execution of manufacturing ramps as well as other factors.

Table of Contents

## Research and development

Research and development expense includes compensation and related costs for personnel, development-related expenses, including non-recurring engineering and fees for outside services, depreciation and amortization, expensed equipment, facilities and information technology expense allocations and travel and related expenses.

Research and development expense for the three and six month periods ended June 30, 2015 and 2014, was as follows (dollars in thousands):

	Three Months Ended			Six Months Ended			
	June 30,			June 30,			
	2015	2014	% Change	2015	2014	% Change	
Research and development	\$6,105	\$5,887	4	% \$12,423	\$12,272	1	%

Research and development expense increased \$0.2 million, or 4%, in the second quarter of 2015 compared to the second quarter of 2014. The increase was primarily due to an increase in compensation expense due to annual merit salary increases which occurred in the third quarter of 2014 and an increase in non-recurring engineering expense due to the timing of development activities.

Research and development expense increased \$0.2 million, or 1% in the first half of 2015 compared to the first half of 2014. The increase was primarily due to an increase in non-recurring engineering expense due to the timing of development activities. The increase was also due to a benefit to research and development recognized in the first half of 2014 for a reduction in direct labor costs and allocated overhead associated with the utilization of research and development engineers on license revenue agreements; these costs were recorded in cost of revenue. There was no similar benefit to research and development in the first half of 2015. These increases were partially offset by a decrease in stock-based compensation expense primarily due to the timing of awards granted.

## Selling, general and administrative

Selling, general and administrative expense includes compensation and related costs for personnel, sales commissions, allocations for facilities and information technology expenses, travel, outside services and other general expenses incurred in our sales, marketing, customer support, management, legal and other professional and administrative support functions.

Selling, general and administrative expense for the three and six month periods ended June 30, 2015 and 2014, was as follows (dollars in thousands):

	Three Months Ended			Six Months Ended			
	June 30,			June 30,			
	2015	2014	% Change	2015	2014	% Change	
Selling, general and administrative	\$3,584	\$3,709	(3	)% \$7,471	\$7,758	(4	)%

Selling, general and administrative expense decreased \$0.1 million, or 3%, in the second quarter of 2015 compared to the second quarter of 2014. The decrease was primarily due to a decrease in compensation expense due to a decrease in headcount and a decreased management bonus accrual, partially offset by annual merit salary increases which occurred in the third quarter of 2014.

Selling, general and administrative expense decreased \$0.3 million, or 4%, in the first half of 2015 compared to the first half of 2014. The decrease was primarily due to a decrease in stock-based compensation expense primarily due to the timing of awards granted. This decrease was partially offset by an increase in outside services expense primarily due to increased resources focused on marketing our mobile products.

## Provision for income taxes

The provision for income taxes during the 2015 and 2014 periods is primarily comprised of current and deferred tax expense in profitable cost-plus foreign jurisdictions, accruals for tax contingencies in foreign jurisdictions and benefits for the reversal of previously recorded foreign tax contingencies due to the expiration of the applicable statutes of limitation. We recorded a benefit for the reversal of previously recorded foreign tax contingencies of \$0.2 million and \$0.3 million in the first half of 2015 and the first half of 2014, respectively.



Table of Contents

Liquidity and Capital Resources

Cash and cash equivalents

Total cash and cash equivalents decreased \$3.5 million from \$17.9 million at December 31, 2014 to \$14.4 million at June 30, 2015. The net decrease during the first half of 2015 resulted from \$1.9 million used in operating activities due primarily to the net loss we recorded for the first half of 2015 and \$2.0 million used for purchases of property and equipment, licensed technology and payments on other asset financings, partially offset by \$0.4 million in proceeds from the issuances of common stock under our employee equity incentive plans.

As of June 30, 2015, our cash and cash equivalents balance of \$14.4 million consisted of \$1.4 million in cash and \$13.0 million in cash equivalents held in U.S. dollar denominated money market funds. Although we did not hold short- or long-term investments as of June 30, 2015, our investment policy requires that our portfolio maintain a weighted average maturity of less than 12 months. Additionally, no maturities can extend beyond 24 months and concentrations with individual securities are limited. Investments must be rated at least A-1 / P-1 / F-1 by at least two Nationally Recognized Statistical Rating Organizations, and our investment policy is reviewed at least annually by our Audit Committee.

Although cash balances held at our foreign subsidiaries would be subject to U.S. taxes if repatriated, we have sufficient U.S. net operating losses to offset the liability associated with any such repatriation and foreign taxes due upon repatriation would not be significant.

Accounts receivable, net

Accounts receivable, net increased to \$4.7 million as of June 30, 2015 from \$4.6 million as of December 31, 2014.

The average number of days sales outstanding was 28 days as of June 30, 2015 and as of December 31, 2014.

Inventories

Inventories were \$2.9 million as of June 30, 2015 and as of December 31, 2014. Inventory turnover decreased to 10.1 as of June 30, 2015 from 11.3 as of December 31, 2014. Inventory turnover is calculated based on annualized operating results and average inventory balances for the respective quarters.

Capital resources

Short-term line of credit

On December 21, 2010, we entered into a Loan and Security Agreement (the "Revolving Loan Agreement") with Silicon Valley Bank (the "Bank"). On December 14, 2012, we and the Bank entered into Amendment No. 1 (the "Amendment No. 1") to the Revolving Loan Agreement. The Revolving Loan Agreement, as amended, provides a secured working capital-based revolving line of credit (the "Revolving Line") in an aggregate amount of up to the lesser of (i) \$10.0 million, or (ii) \$1.0 million plus 80% of eligible domestic accounts receivable and certain foreign accounts receivable. On December 4, 2013, we and the Bank entered into Amendment No. 2 (the "Amendment No. 2") to the Revolving Loan Agreement which changes the maturity date of the Revolving Line of credit to January 1, 2016. The maturity date was previously December 14, 2014, as provided by Amendment No. 1. In addition, the Revolving Loan Agreement, as amended, provides for non-formula advances of up to \$10.0 million which may be made solely during the last five business days of any fiscal month or quarter and which must be repaid by the Company on or before the fifth business day after the applicable fiscal month or quarter end. Due to their repayment terms, non-formula advances do not provide the Company with usable liquidity.

The Revolving Loan Agreement, as amended, contains customary affirmative and negative covenants as well as customary events of default. The occurrence of an event of default could result in the acceleration of the Company's obligations under the Revolving Loan Agreement, as amended, and an increase to the applicable interest rate, and would permit the Bank to exercise remedies with respect to its security interest. As of June 30, 2015, we were in compliance with all of the terms of the Revolving Loan Agreement, as amended.

Short-term borrowings outstanding under the Revolving Line consisted of non-formula advances of \$3.0 million as of June 30, 2015 and as of December 31, 2014, both advances were repaid within required terms.

## Table of Contents

### Liquidity

As of June 30, 2015, we had no long-term debt and our cash and cash equivalents balance of \$14.4 million was highly liquid. Additionally, our short-term debt of \$3.0 million as of June 30, 2015 was repaid within required terms. We anticipate that our existing working capital will be adequate to fund our operating, investing and financing needs for at least the next twelve months. We may pursue financing arrangements including the issuance of debt or equity securities or reduce expenditures, or both, to meet the Company's cash requirements, including in the longer term. There is no assurance that, if required, we will be able to raise additional capital or reduce discretionary spending to provide the required liquidity which, in turn, may have an adverse effect on our financial position, results of operations and cash flows.

From time to time, we may evaluate acquisitions of businesses, products or technologies that complement our business. Any transactions, if consummated, may consume a material portion of our working capital or require the issuance of equity securities that may result in dilution to existing shareholders. Our ability to generate cash from operations is also subject to substantial risks described in Part II, "Item 1A., Risk Factors." If any of these risks occur, we may be unable to generate or sustain positive cash flow from operating activities. We would then be required to use existing cash and cash equivalents to support our working capital and other cash requirements. If additional funds are required to support our working capital requirements, acquisitions or other purposes, we may seek to raise funds through debt financing, equity financing or from other sources. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our shareholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing shareholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operating flexibility, and would also require us to incur interest expense. We can provide no assurance that additional financing will be available at all or, if available, that we would be able to obtain additional financing on terms favorable to us.

### Contractual Payment Obligations

Our contractual obligations for 2015 and beyond are included in our Annual Report on Form 10-K for the year ended December 31, 2014, filed with the Securities and Exchange Commission on March 4, 2015. Our obligations for 2015 and beyond have not changed materially as of June 30, 2015.

### Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

## Item 3. Quantitative and Qualitative Disclosures about Market Risk.

### Interest Rate Risk

As of June 30, 2015, all of our cash equivalents were held in highly liquid money market accounts, accordingly, we do not have significant exposure to changes in interest rates.

### Exchange Rate Risk

We are exposed to risks resulting from the fluctuations of foreign currencies, primarily those of Japan, Taiwan, Korea and the People's Republic of China. We sell our products to Original Equipment Manufacturers ("OEMs") that incorporate our products into other products that they sell outside of the U.S. While sales of our products to OEMs are denominated in U.S. dollars, the products sold by OEMs are denominated in foreign currencies. Accordingly, any strengthening of the U.S. dollar against these foreign currencies will increase the foreign currency price equivalent of our products, which could lead to a change in the competitive nature of these products in the marketplace.

In addition, a portion of our operating expenses, such as employee salaries and foreign income taxes, are denominated in foreign currencies. Accordingly, our operating results are affected by changes in the exchange rate between the U.S. dollar and those currencies. Any future strengthening of those currencies against the U.S. dollar will negatively impact our operating results by increasing our operating expenses as measured in U.S. dollars. We analyze our exposure to foreign currency fluctuations and may engage in financial hedging techniques in the future to attempt to minimize the effect of these potential fluctuations; however, foreign currency exchange rate fluctuations may adversely affect our financial results in the future.





Table of Contents

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Based on management's evaluation (with the participation of our Chief Executive Officer (our Principal Executive Officer) and Chief Financial Officer (our Principal Financial Officer)), as of the end of the period covered by this report, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act")) are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and is accumulated and communicated to management, including our Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes to our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

Table of Contents

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

For a discussion of legal proceedings, see “Note 9: Commitments and Contingencies” in the Notes to Condensed Consolidated Financial Statements of this Quarterly Report on Form 10-Q, such information which is incorporated herein by reference.

Item 1A. Risk Factors.

Investors should carefully consider the risks described below. If any of the following risks occur, the market price of our shares of common stock could decline materially or our actual results may differ materially from those expected or those expressed in any forward-looking statements made by us or on our behalf. Additional risks that we currently believe are immaterial may also materially affect our business, results of operations or financial condition. In assessing these risks, investors should also refer to the other information contained in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2014, including our consolidated financial statements and related notes, and our other filings made from time to time with the Securities and Exchange Commission.

Company Specific Risks

Our product strategy, which is targeted at markets demanding superior video and image quality, may not address the demands of our target customers and may not lead to increased revenue in a timely manner or at all, which could materially adversely affect our results of operations and limit our ability to grow.

We have adopted a product strategy that focuses on our core competencies in video display processing and delivering high levels of video and image quality. With this strategy, we continue to make further investments in the development of our image processor architecture for the digital projector market, with particular focus on adding increased performance and functionality. For the television and panel markets, which includes Ultra High Definition televisions, and the mobile market, our strategy focuses on implementing our intellectual property ("IP") to improve the video performance of our customers' image processors through the use of our MotionEngine® advanced video co-processor integrated circuits. This strategy is designed to address the needs of the high-resolution and high-quality segment of these markets. Such markets may not develop or may take longer to develop than we expect. We cannot assure you that the products we are developing will adequately address the demands of our target customers, or that we will be able to produce our new products at costs that enable us to price these products competitively.

Achieving design wins involves lengthy competitive selection processes that require us to incur significant expenditures prior to generating any revenue or without any guarantee of any revenue related to this business. If we fail to generate revenue after incurring substantial expenses to develop our products, our business and operating results would suffer.

We must achieve “design wins,” that enable us to sell our semiconductor solutions for use in our customers' products. These competitive selection processes typically are lengthy and can require us to incur significant design and development expenditures and dedicate scarce engineering resources in pursuit of a single customer opportunity. We may not achieve a design win and may never generate any revenue despite incurring significant design and development expenditures. This could cause us to lose revenue and require us to write off obsolete inventory, and could weaken our position in future competitive selection processes.

Even if our product strategy is properly targeted, we cannot assure you that the products we are developing will lead to an increase in revenue from new design wins. To achieve design wins, we must design and deliver cost-effective, innovative and integrated semiconductors that overcome the significant costs associated with qualifying a new supplier and which make developers reluctant to change component sources. Additionally, potential developers may be unwilling to select our products due to concerns over our financial strength. Further, design wins do not necessarily result in developers ordering large volumes of our products. Developers can choose at any time to discontinue using our products in their designs or product development efforts. A design win is not a binding commitment by a developer to purchase our products, but rather a decision by a developer to use our products in its design process. Even if our products are chosen to be incorporated into a developer's products, we may still not realize significant

revenue from the developer if its products are not commercially successful or it chooses to qualify, or incorporate the products, of a second source. Additionally, even if our product strategy is successful at achieving design wins and increasing our revenue, we may continue to incur operating losses due to the significant research and development costs that are required to develop competitive products for the television and panel market, digital projection market and mobile market.

20

---

Table of Contents

If we fail to retain or attract the specialized technical and management personnel required to successfully operate our business, it could harm our business and may result in lost sales and diversion of management resources.

Our success depends on the continued services of our executive officers and other key management, engineering, and sales and marketing personnel and on our ability to continue to attract, retain and motivate qualified personnel.

Competition for skilled engineers and management personnel is intense within our industry, and we may not be successful in hiring and retaining qualified individuals. For example, we have experienced, and may continue to experience, difficulty and increased compensation expense in order to hire and retain qualified engineering personnel in our Shanghai design center. The loss of, or inability to hire, key personnel could limit our ability to develop new products and adapt existing products to our customers' requirements, and may result in lost sales and a diversion of management resources.

We have significantly fewer financial resources than most of our competitors which limits our ability to implement new products or enhancements to our current products and may require us to implement future restructuring plans, which in turn could adversely affect our future sales and financial condition.

Financial resource constraints could limit our ability to execute our product strategy or require us to implement restructuring plans, particularly if we are unable to generate sufficient cash from operations or obtain additional sources of financing. Any future restructuring actions may slow our development of new or enhanced products by limiting our research and development and engineering activities. Our cash balances are also lower than those of our competitors, which may limit our ability to develop competitive new products on a timely basis or at all. If we are unable to successfully introduce new or enhanced products, our sales, operating results and financial condition will be adversely affected.

If we are not profitable in the future, we may be unable to continue our operations.

Although we recorded net income for the year ended December 31, 2010, we have otherwise incurred operating losses each year since 2004. If and when we achieve profitability depends upon a number of factors, including our ability to develop and market innovative products, accurately estimate inventory needs, contract effectively for manufacturing capacity and maintain sufficient funds to finance our activities. We cannot assure our investors that we will ever achieve profitability. If we are not profitable in the future, we may be unable to continue our operations.

A significant amount of our revenue comes from a limited number of customers and distributors and from time to time we may enter into exclusive deals with customers, exposing us to increased credit risk and subjecting our cash flow to the risk that any of our customers or distributors could decrease or cancel its orders.

The display manufacturing market is highly concentrated and we are, and will continue to be, dependent on a limited number of customers and distributors for a substantial portion of our revenue. Sales to our top distributor represented 27%, 29% and 31% of revenue for the six month period ended June 30, 2015 and the years ended December 31, 2014, and 2013, respectively. If any of these distributors ceases to do business with us, it may be difficult for us to find adequate replacements, and even if we do, it may take some time. The loss of any of our top distributors would negatively affect our results of operations. Additionally, revenue attributable to our top five end customers represented 82%, 60% and 57% of revenue for the six month period ended June 30, 2015 and the years ended December 31, 2014, and 2013, respectively. As of June 30, 2015, we had two accounts that each represented 10% or more of accounts receivable. As of December 31, 2014, we had three accounts that each represented 10% or more of accounts receivable. All of the orders included in our backlog are cancelable. A reduction, delay or cancellation of orders from one or more of our significant customers, or a decision by one or more of our significant customers to select products manufactured by a competitor or to use its own internally-developed semiconductors, would significantly and negatively impact our revenue. Further, the concentration of our accounts receivable with a limited number of customers increases our credit risk. The failure of these customers to pay their balances, or any customer to pay future outstanding balances, would result in an operating expense and reduce our cash flows.

We do not have long-term purchase commitments from our customers and if our customers cancel or change their purchase commitments, our revenue and operating results could suffer.

Substantially all of our sales to date have been made on a purchase order basis. We do not have any long-term commitments with any of our customers. As a result, our customers may cancel, change or delay product purchase commitments with little or no notice to us and without penalty. This, in turn, could cause our revenue to decline and

materially and adversely affect our results of operations.

21

---

Table of Contents

We may not be able to borrow funds under our credit facility or secure future financing which could affect our ability to fund fluctuations in our working capital requirements.

In December 2010, we entered into a Loan and Security Agreement with Silicon Valley Bank (the "Loan and Security Agreement") to provide a secured, working capital-based, revolving line of credit. In December 2012, we entered into Amendment No. 1 to the Loan and Security Agreement (the "Amendment No. 1"). Among other things, Amendment No. 1 revises the calculation of the borrowing base under the Loan and Security Agreement to \$1.0 million plus 80% of eligible domestic accounts receivable. Amendment No. 1 also provides an option for LIBOR advances that bear interest based on the LIBOR rate. On December 4, 2013, we entered into Amendment No. 2 (the "Amendment No. 2") to the Loan and Security Agreement. Amendment No. 2 changes the maturity date of the revolving line of credit provided pursuant to the Loan and Security Agreement to January 1, 2016. The maturity date was previously December 14, 2014, as provided by Amendment No. 1 to the Loan and Security Agreement. We view this line of credit as a source of available liquidity to fund fluctuations in our working capital requirements. For example, if we experience an increase in order activity from our customers, our cash balance may decrease due to the need to purchase inventories to fulfill those orders. If this occurs, we may need to draw on this facility in order to maintain our liquidity.

This facility contains various conditions, covenants and representations with which we must be in compliance in order to borrow funds. We cannot assure you that we will be in compliance with these conditions, covenants and representations in the future when we may need to borrow funds under this facility, in which case we may need to seek alternative sources of funding, which may not be available quickly or which may be available only on less favorable terms. Our inability to raise the necessary funding in the event we need it could negatively affect our business. In addition, the amount available to us under this facility depends in part on our accounts receivable balance which could decrease due to a decrease in revenue.

This facility expires on January 1, 2016, after which time we may need to secure new financing to continue funding fluctuations in our working capital requirements. We cannot assure you that we will be able to secure new financing in a timely manner or at all, or secure financing on terms that are acceptable to us.

If we are unable to generate sufficient cash from operations and are forced to seek additional financing alternatives, our shareholders may experience dilution or our operations may be impaired.

If we are unable to generate sufficient cash from operations, we may be unable to generate or sustain positive cash flow from operating activities. We would then be required to use existing cash and cash equivalents to support our working capital and other cash requirements. Additionally, from time to time, we may evaluate acquisitions of businesses, products or technologies that complement our business. Any further transactions, if consummated, may consume a material portion of our working capital or require the issuance of equity securities that may result in dilution to existing shareholders. If additional funds are required to support our working capital requirements, acquisitions or other purposes, we may seek to raise funds through debt and equity financing or from other sources. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our shareholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing shareholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operating flexibility, and would also require us to incur interest expense. We can provide no assurance that additional financing will be available at all or, if available, that we would be able to obtain additional financing on terms favorable to us.

We license our intellectual property, which exposes us to risks of infringement or misappropriation, and may cause fluctuations in our operating results.

We have licensed certain of our intellectual properties to third parties and may seek to enter into additional license arrangements in the future. We cannot assure you, however, that others will be interested in licensing our intellectual property on commercially favorable terms or at all. We also cannot ensure that licensees will honor agreed-upon market restrictions, not infringe upon or misappropriate our intellectual property or maintain the confidentiality of our proprietary information.



Table of Contents

IP license agreements are complex and earning and recognizing revenue under these agreements depends upon many factors, including completion of milestones, allocation of values to delivered items and customer acceptances. Many of these factors require significant judgments. Also, generating revenue from these arrangements is a lengthy and complex process that may last beyond the period in which efforts begin and, once an agreement is in place, the timing of revenue recognition may depend on events such as customer acceptance of deliverables, achievement of milestones, our ability to track and report progress on contracts, customer commercialization of the licensed technology and other factors, any or all of which may or may not be achieved. The accounting rules associated with recognizing revenue from these transactions are complex and subject to interpretation. Due to these factors, the amount of licensing revenue recognized in any period, if any, and our results of operations, may differ significantly from our expectations. Finally, because licensing revenue typically has a higher margin compared to product sales, licensing revenue can have a disproportionate impact on our gross profit and results of operations. There is no assurance that we will be able to maintain a consistent level of licensing revenue or mix of licensing revenue and revenue from product sales, which could result in wide fluctuations in our results of operations from period to period, making it difficult to accurately measure the performance of our business.

Our revenue and operating results can fluctuate from period to period, which could cause our share price to decline. Our revenue and operating results have fluctuated in the past and may fluctuate from period to period in the future due to a variety of factors, many of which are beyond our control. Factors that may contribute to these fluctuations include those described in this "Risk Factors" section of this report, such as the timing, changes in or cancellation of orders by customers, market acceptance of our products and our customers' products and the timing and extent of product development costs. Additionally, our business is subject to seasonality related to the markets we serve and the location of our customers. For example, we have historically experienced higher revenue from the multimedia projector market in the third quarter of the year, and lower revenue in the first quarter of the year. Further, holiday demand for consumer electronics, including high-end televisions, has sometimes contributed to increased revenue in the second half of the year. As a result of these and other factors, the results of any prior quarterly or annual periods should not be relied upon as indications of our future revenue or operating performance. Fluctuations in our revenue and operating results could cause our share price to decline.

Our net operating loss carryforwards may be limited or they may expire before utilization.

As of December 31, 2014, we had federal and state net operating loss carryforwards of approximately \$203.4 million and \$17.7 million, respectively, which expire between 2015 and 2034. These net operating loss carryforwards may be used to offset future taxable income and thereby reduce our income taxes otherwise payable. However, we cannot assure you that we will have taxable income in the future before all or a portion of these net operating loss carryforwards expire. Additionally, our federal net operating losses may be limited by Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), which imposes an annual limit on the ability of a corporation that undergoes an "ownership change" to use its net operating loss carryforwards to reduce its tax liability. An ownership change is generally defined as a greater than 50% increase in equity ownership by 5% shareholders in any three-year period. In the event of certain changes in our shareholder base, we may at some time in the future experience an "ownership change" and the use of our federal net operating loss carryforwards may be limited.



Table of Contents

We face a number of risks as a result of the concentration of our operations and customers in Asia.

Many of our customers are located in Japan, the People's Republic of China ("PRC"), Korea, or Taiwan. Sales outside the U.S. accounted for approximately 100%, 94% and 83% of revenue for the six month period ended June 30, 2015 and the years ended December 31, 2014 and 2013, respectively. We anticipate that sales outside the U.S. will continue to account for a substantial portion of our revenue in future periods. In addition, customers who incorporate our products into their products sell a substantial portion of their products outside of the U.S. All of our products are also manufactured outside of the U.S. and most of our current manufacturers are located in the PRC, Taiwan, or Singapore. Furthermore, most of our employees are located in the PRC, Japan and Taiwan. Our Asian operations require significant management attention and resources, and we are subject to many risks associated with operations in Asia, including, but not limited to:

- difficulties in managing international distributors and manufacturers due to varying time zones, languages and business customs;
- compliance with U.S. laws affecting operations outside of the U.S., such as the Foreign Corrupt Practices Act;
- reduced or limited protection of our IP, particularly in software, which is more prone to design piracy;
- difficulties in collecting outstanding accounts receivable balances;
- changes in tax rates, tax laws and the interpretation of those laws;
- difficulties regarding timing and availability of export and import licenses;
- ensuring that we obtain complete and accurate information from our Asian operations to make proper disclosures in the United States;
- political and economic instability;
- difficulties in maintaining sales representatives outside of the U.S. that are knowledgeable about our industry and products;
- changes in the regulatory environment in the PRC, Japan, Taiwan and Korea that may significantly impact purchases of our products by our customers or our customers' sales of their own products;
- outbreaks of health epidemics in the PRC or other parts of Asia;
- imposition of new tariffs, quotas, trade barriers and similar trade restrictions on our sales;
- varying employment and labor laws; and
- greater vulnerability to infrastructure and labor disruptions than in established markets.

Any of these factors could require a disproportionate share of management's attention, result in increased costs or decreased revenues, and could materially affect our product sales, financial condition and results of operations.

Our operations in Asia expose us to heightened risks due to natural disasters.

The risk of natural disasters in the Pacific Rim region, is significant. Natural disasters in countries where our manufacturers or customers are located could result in disruption of our manufacturers' and customers' operations, resulting in significant delays in shipment of, or significant reductions in orders for, our products. There can be no assurance that we can locate additional manufacturing capacity or markets on favorable terms, or find new customers, in a timely manner, if at all. Natural disasters in this region could also result in:

- reduced end user demand due to the economic impact of any natural disaster;
- a disruption to the global supply chain for products manufactured in areas affected by natural disasters that are included in products purchased either by us or by our customers;
- an increase in the cost of products that we purchase due to reduced supply; and
- other unforeseen impacts as a result of the uncertainty resulting from a natural disaster.

Table of Contents

We face additional risks associated with our operations in the PRC and our results of operations and financial position may

be harmed by changes in the PRC's political, economic or social conditions.

We have, and expect to continue to have, significant operations in the PRC. The economy of the PRC differs from the economies of many countries in important respects such as structure, government involvement, level of development, growth rate, capital reinvestment, allocation of resources, self-sufficiency, rate of inflation, foreign currency flows and balance of payments position, among others. There can be no assurance that the PRC's economic policies will be consistent or effective and our results of operations and financial position may be harmed by changes in the PRC's political, economic or social conditions.

Additionally, our Chinese subsidiary is considered a foreign-invested enterprise and is subject to laws and regulations applicable to foreign investment in the PRC and, in particular, laws applicable to foreign-invested enterprises. For example, the PRC's government imposes control over the convertibility of RMB into foreign currencies, which can cause difficulties converting cash held in RMB to other currencies. While the overall effect of legislation over the past two decades has significantly enhanced the protections afforded to various foreign investments in the PRC, the PRC has not developed a fully integrated legal system, and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in the PRC. Because these laws and regulations are relatively new, and published court decisions are limited and nonbinding in nature, the interpretation and enforcement of these laws and regulations involve uncertainties. In addition, the PRC's legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all, which may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until after the violation occurs. Any administrative and court proceedings in the PRC may be protracted, resulting in substantial costs and diversion of resources and management attention. However, since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings. These uncertainties may also impede our ability to enforce the contracts entered into by our PRC subsidiary and could materially and adversely affect our business and results of operations.

Our international operations expose us to risks resulting from the fluctuations of foreign currencies.

We are exposed to risks resulting from the fluctuations of foreign currencies, primarily those of Japan, Taiwan, Korea and the PRC. We sell our products to OEMs that incorporate our products into other products that they sell outside of the U.S. While sales of our products to OEMs are denominated in U.S. dollars, the products sold by OEMs are denominated in foreign currencies. Accordingly, any strengthening of the U.S. dollar against these foreign currencies will increase the foreign currency price equivalent of our products, which could lead to a change in the competitive nature of these products in the marketplace. This, in turn, could lead to a reduction in revenue.

In addition, a portion of our operating expenses, such as employee salaries and foreign income taxes, are denominated in foreign currencies. Accordingly, our operating results are affected by changes in the exchange rate between the U.S. dollar and those currencies. Any future strengthening of those currencies against the U.S. dollar will negatively impact our operating results by increasing our operating expenses as measured in U.S. dollars.

We may engage in financial hedging techniques in the future as part of a strategy to address potential foreign currency exchange rate fluctuations. These hedging techniques, however, may not be successful at reducing our exposure to foreign currency exchange rate fluctuations and may increase costs and administrative complexity.

As we have limited insurance coverage, any incurred liability resulting from uncovered claims could adversely affect our financial condition and results of operations.

Our insurance policies may not be adequate to fully offset losses from covered incidents, and we do not have coverage for certain losses. For example, we do not have earthquake insurance related to our Asian operations because adequate coverage is not offered at economically justifiable rates. If our insurance coverage is inadequate to protect us against catastrophic losses, any uncovered losses could adversely affect our financial condition and results of operations.

Our dependence on selling to distributors and integrators increases the complexity of managing our supply chain and may result in excess inventory or inventory shortages.

Selling to distributors and OEMs that build display devices based on specifications provided by branded suppliers, also referred to as integrators, reduces our ability to forecast sales accurately and increases the complexity of our

business. Our sales are made on the basis of customer purchase orders rather than long-term purchase commitments. Our distributors, integrators and

25

---

Table of Contents

customers may cancel or defer purchase orders at any time but we must order wafer inventory from our contract manufacturers three to four months in advance.

The estimates we use for our advance orders from contract manufacturers are based, in part, on reports of inventory levels and production forecasts from our distributors and integrators, which act as intermediaries between us and the companies using our products. This process requires us to make numerous assumptions concerning demand and to rely on the accuracy of the reports and forecasts of our distributors and integrators, each of which may introduce error into our estimates of inventory requirements. Our failure to manage this challenge could result in excess inventory or inventory shortages that could materially impact our operating results or limit the ability of companies using our semiconductors to deliver their products. If we overestimate demand for our products, it could lead to significant charges for obsolete inventory. On the other hand, if we underestimate demand, we could forego revenue opportunities, lose market share and damage our customer relationships.

We may be unable to successfully manage any future growth, including the integration of any future acquisition or equity investment, which could disrupt our business and severely harm our financial condition.

If we fail to effectively manage any future internal growth, our operating expenses may increase more rapidly than our revenue, adversely affecting our financial condition and results of operations. To manage any future growth effectively in a rapidly evolving market, we must be able to maintain and improve our operational and financial systems, train and manage our employee base and attract and retain qualified personnel with relevant experience. We could spend substantial amounts of time and money in connection with expansion efforts for which we may not realize any profit. Our systems, procedures, controls or financial resources may not be adequate to support our operations and we may not be able to grow quickly enough to exploit potential market opportunities. In addition, we may not be able to successfully integrate the businesses, products, technologies or personnel of any entity that we might acquire in the future, and any failure to do so could disrupt our business and seriously harm our financial condition.

Continued compliance with regulatory and accounting requirements will be challenging and will require significant resources.

We spend a significant amount of management time and external resources to comply with changing laws, regulations and standards relating to corporate governance and public disclosure, including evolving SEC rules and regulations, NASDAQ Global Market rules, the Dodd-Frank Wall Street Reform and Consumer Protection Act and the Sarbanes-Oxley Act of 2002 which requires management's annual review and evaluation of internal control over financial reporting. Failure to comply with these laws and rules could lead to investigation by regulatory authorities, de-listing from the NASDAQ Global Market, or penalties imposed on us. If we are unable to maintain an effective system of internal controls, our results of operations could be harmed and our shareholders could lose confidence in the accuracy and completeness of our financial reports which in turn could cause our stock price to decline.

New regulations related to conflict minerals may adversely impact our business.

The SEC has adopted disclosure and reporting rules intended to improve transparency and accountability concerning the supply of certain minerals, known as conflict minerals, originating from the Democratic Republic of Congo ("DRC") and adjoining countries. These rules require us to determine the origin of certain materials used in our products and disclose whether we use any materials containing conflict minerals originating from the DRC and adjoining countries. There are costs associated with complying with these rules, including costs incurred to conduct inquiries to determine the sources of any materials containing conflict minerals used in our products, to fulfill our reporting requirements and to develop and implement potential changes to products, processes or sources of supply if it is determined that our products contain or use any conflict minerals from the DRC or adjoining countries. The implementation of these rules could also affect the sourcing, supply and pricing of materials used in our products. For example, there may only be a limited number of suppliers offering "conflict free" materials, we cannot be sure that we will be able to obtain necessary "conflict free" materials from such suppliers in sufficient quantities or at reasonable prices. In addition, we may face reputational challenges if we determine that any of our products contain minerals that are not conflict free or if we are unable to sufficiently verify the origins for all materials containing conflict minerals used in our products through the

procedures we may implement.

26

---

## Table of Contents

Our effective income tax rate is subject to unanticipated changes in, or different interpretations of tax rules and regulations and forecasting our effective income tax rate is complex and subject to uncertainty.

As a global company, we are subject to taxation by a number of taxing authorities and as such, our tax rates vary among the jurisdictions in which we operate. Unanticipated changes in our tax rates could affect our future results of operations. Our effective tax rates could be adversely affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in tax laws or the interpretation of tax laws either in the U.S. or abroad, or by changes in the valuation of our deferred tax assets and liabilities. The ultimate outcomes of any future tax audits are uncertain, and we can give no assurance as to whether an adverse result from one or more of them would have a material effect on our operating results and financial position.

The computation of income tax expense is complex as it is based on the laws of numerous tax jurisdictions and requires significant judgment on the application of complicated rules governing accounting for tax provisions under U.S. generally accepted accounting principles. Income tax expense for interim quarters is based on our forecasted tax rate for the year, which includes forward looking financial projections, including the expectations of profit and loss by jurisdiction, and contains numerous assumptions. For these reasons, our tax rate may be materially different than our forecast.

We rely upon certain critical information systems for the operation of our business, and the failure of any critical information system may result in serious harm to our business.

We maintain and rely upon certain critical information systems for the effective operation of our business. These information systems include telecommunications, the Internet, our corporate intranet, various computer hardware and software applications, network communications and e-mail. These information systems are subject to attacks, failures and access denials from a number of potential sources including viruses, destructive or inadequate code, power failures, and physical damage to computers, communication lines and networking equipment. To the extent that these information systems are under our control, we have implemented security procedures, such as virus protection software and emergency recovery processes, to address the outlined risks. Security procedures for information systems cannot be guaranteed to be failsafe and our inability to use or access these information systems at critical times could compromise the timely and efficient operation of our business. Additionally, any compromise of our information security could result in the unauthorized publication of our confidential business or proprietary information, cause an interruption in our operations, result in the unauthorized release of customer or employee data, result in a violation of privacy or other laws, or expose us to a risk of litigation or damage our reputation, any or all of which could harm our business and operating results.

Environmental laws and regulations have caused us to incur, and may again cause us to incur, significant expenditures to comply with applicable laws and regulations, and we may be assessed considerable penalties for noncompliance.

We are subject to numerous environmental laws and regulations. Compliance with current or future environmental laws and regulations could require us to incur substantial expenses which could harm our business, financial condition and results of operations. We have worked, and will continue to work, with our suppliers and customers to ensure that our products are compliant with enacted laws and regulations. Failure by us or our contract manufacturers to comply with such legislation could result in customers refusing to purchase our products and could subject us to significant monetary penalties in connection with a violation, either of which would have a material adverse effect on our business, financial condition and results of operations.

### Company Risks Related to the Semiconductor Industry and Our Markets

Our highly integrated products and high-speed mixed signal products are difficult to manufacture without defects and the existence of defects could result in increased costs, delays in the availability of our products, reduced sales of products or claims against us.

The manufacture of semiconductors is a complex process and it is often difficult for semiconductor foundries to produce semiconductors free of defects. Because many of our products are more highly integrated than other semiconductors and incorporate mixed signal analog and digital signal processing, multi-chip modules and embedded memory technology, they are even more difficult to produce without defects. Defective products can be caused by design or manufacturing difficulties. Identifying quality problems can be performed only by analyzing and testing our semiconductors in a system after they have been manufactured. The difficulty in identifying defects is compounded

because the process technology is unique to each of the multiple semiconductor foundries we contract with to manufacture our products. Despite testing by both our customers and us, errors or performance problems may be found in existing or new semiconductors. Failure to achieve defect-free products may result in increased costs and delays in the availability of our products.

27

---

Table of Contents

Additionally, customers could seek damages from us for their losses and shipments of defective products may harm our reputation with our customers. We have experienced field failures of our semiconductors in certain customer applications that required us to institute additional testing. As a result of these field failures, we have incurred warranty costs due to customers returning potentially affected products and have experienced reductions in revenues due to delays in production. Our customers have also experienced delays in receiving product shipments from us that resulted in the loss of revenue and profits. Additionally, shipments of defective products could cause us to lose customers or to incur significant replacement costs, either of which would harm our reputation and our business. Any defects, errors or bugs could also interrupt or delay sales of our new products to our customers, which would adversely affect our financial results.

The development of new products is extremely complex and we may be unable to develop our new products in a timely manner which could result in a failure to obtain new design wins and/or maintain our current revenue levels. In addition to the inherent difficulty of designing complex integrated circuits, product development delays may result from:

- difficulties in hiring and retaining necessary technical personnel;
- difficulties in reallocating engineering resources and overcoming resource limitations;
- difficulties with contract manufacturers;
- changes to product specifications and customer requirements;
- changes to market or competitive product requirements; and
- unanticipated engineering complexities.

If we are not successful in the timely development of new products, we may fail to obtain new design wins and our financial results will be adversely affected.

Intense competition in our markets may reduce sales of our products, reduce our market share, decrease our gross profit and result in large losses.

We compete with specialized and diversified electronics and semiconductor companies that offer display processors or scaling components. Some of these include Actions Microelectronics Co., Ltd., i-Chips Technologies Inc., Intersil Corporation, Lattice Semiconductor Corporation, MediaTek Inc., MStar Semiconductor, Novatech Co., Ltd. Inc., NVIDIA Corporation, QUALCOMM Incorporated, Realtek Semiconductor Corp., Renesas Electronics America, Sigma Designs, Inc., STMicroelectronics N.V., Sunplus Technology Co., Ltd., Texas Instruments Incorporated, and other companies. Potential and current competitors may include diversified semiconductor manufacturers and the semiconductor divisions or affiliates of some of our customers, including LG Electronics, Inc., Matsushita Electric Industrial Co., Ltd., Mitsubishi Digital Electronics America, Inc., NEC Corporation, Samsung Electronics Co., Ltd., ON Semiconductor Corporation, Seiko Epson Corporation, Sharp Electronics Corporation, Sony Corporation, and Toshiba America, Inc. In addition, start-up companies may seek to compete in our markets.

Many of our competitors have longer operating histories and greater resources to support development and marketing efforts than we do. Some of our competitors operate their own fabrication facilities. These competitors may be able to react more quickly and devote more resources to efforts that compete directly with our own. Additionally, any consolidation in the semiconductor industry may impact our competitive position. Our current or potential customers have developed, and may continue to develop, their own proprietary technologies and become our competitors. Increased competition from both competitors and our customers' internal development efforts could harm our business, financial condition and results of operations by, for example, increasing pressure on our profit margin or causing us to lose sales opportunities. For example, frame rate conversion technology similar to that used in our line of MotionEngine® advanced video co-processors continues to be integrated into the system-on-chip ("SoC") and display timing controller products of our competitors. We cannot assure you that we can compete successfully against current or potential competitors.



Table of Contents

If we are not able to respond to the rapid technological changes and evolving industry standards in the markets in which we compete, or seek to compete, our products may become less desirable or obsolete.

The markets in which we compete or seek to compete are subject to rapid technological change and miniaturization capabilities, frequent new product introductions, changing customer requirements for new products and features and evolving industry standards. The introduction of new technologies and emergence of new industry standards could render our products less desirable or obsolete, which could harm our business and significantly decrease our revenue.

Examples of changing industry standards include the growing use of broadband to deliver video content, increased display resolution and size, faster screen refresh rates, video capability such as high definition, Ultra HD, and 3D, the proliferation of new display devices and the drive to network display devices together. Our failure to predict market needs accurately or to timely develop new competitively priced products or product enhancements that incorporate new industry standards and technologies, including integrated circuits with increasing levels of integration and new features, using smaller geometry process technologies, may harm market acceptance and sales of our products.

Our products are incorporated into our customers' products, which have different parts and specifications and utilize multiple protocols that allow them to be compatible with specific computers, video standards and other devices. If our customers' products are not compatible with these protocols and standards, consumers will return, or not purchase these products and the markets for our customers' products could be significantly reduced. Additionally, if the technology used by our customers becomes less competitive due to cost, customer preferences or other factors relative to alternative technologies, sales of our products could decline.

Dependence on a limited number of sole-source, third-party manufacturers for our products exposes us to possible shortages based on low manufacturing yield, errors in manufacturing, uncontrollable lead-times for manufacturing, capacity allocation, price increases with little notice, volatile inventory levels and delays in product delivery, any of which could result in delays in satisfying customer demand, increased costs and loss of revenue.

We do not own or operate a semiconductor fabrication facility and do not have the resources to manufacture our products internally. We rely on a limited number of foundries and assembly and test vendors to produce all of our wafers and for completion of finished products. Our wafers are not fabricated at more than one foundry at any given time and our wafers typically are designed to be fabricated in a specific process at only one foundry. Sole sourcing each product increases our dependence on our suppliers. We have limited control over delivery schedules, quality assurance, manufacturing yields, potential errors in manufacturing and production costs. We do not have long-term supply contracts with our third-party manufacturers, so they are not obligated to supply us with products for any specific period of time, quantity or price, except as may be provided in a particular purchase order. Our suppliers can increase the prices of the products we purchase from them with little notice, which may cause us to increase the prices to our customers and harm our competitiveness. Because our requirements represent only a small portion of the total production capacity of our contract manufacturers, they could reallocate capacity to other customers during periods of high demand for our products, as they have done in the past. We expect this may occur again in the future.

Establishing a relationship with a new contract manufacturer in the event of delays or increased prices would be costly and burdensome. The lead time to make such a change would be at least nine months, and the estimated time for us to adapt a product's design to a particular contract manufacturer's process is at least four months. Additionally, we have, and may continue to choose new foundries to manufacture our wafers which may require us to modify our design methodology flow for the process technology and intellectual property cores of the new foundry. If we have to qualify a new foundry or packaging, assembly and testing supplier for any of our products or if we are unable to obtain our products from our contract manufacturers on schedule, at costs that are acceptable to us, or at all, we could incur significant delays in shipping products, our ability to satisfy customer demand could be harmed, our revenue from the sale of products may be lost or delayed and our customer relationships and ability to obtain future design wins could be damaged.

We use a customer-owned tooling process for manufacturing most of our products, which exposes us to the possibility of poor yields and unacceptably high product costs.

We build most of our products on a customer-owned tooling basis ("COT"), whereby we directly contract the manufacture of our products, including wafer production, assembly and test. As a result, we are subject to increased risks arising from wafer manufacturing yields and risks associated with coordination of the manufacturing, assembly

and testing process. Poor product yields result in higher product costs, which could make our products less competitive if we increase our prices to compensate for our higher costs, or could result in lower gross profit margins if we do not increase our prices.

29

---

Table of Contents

We depend on manufacturers of our semiconductor products not only to respond to changes in technology and industry standards but also to continue the manufacturing processes on which we rely.

To respond effectively to changes in technology and industry standards, we depend on our foundries to implement advanced semiconductor technologies and our operations could be adversely affected if those technologies are unavailable, delayed or inefficiently implemented. In order to increase performance and functionality and reduce the size of our products, we are continuously developing new products using advanced technologies that further miniaturize semiconductors and we are dependent on our foundries to develop and provide access to the advanced processes that enable such miniaturization. We cannot be certain that future advanced manufacturing processes will be implemented without difficulties, delays or increased expenses. Our business, financial condition and results of operations could be materially adversely affected if advanced manufacturing processes are unavailable to us, substantially delayed or inefficiently implemented.

Creating the capacity for new technological changes may cause manufacturers to discontinue older manufacturing processes in favor of newer ones. We must then either retire the affected part or port (develop) a new version of the part that can be manufactured with a newer process technology. In the event that a manufacturing process is discontinued, our current suppliers may be unwilling or unable to manufacture our current products. We may not be able to place last time buy orders for the old technology or find alternate manufacturers of our products to allow us to continue to produce products with the older technology while we expend the significant costs for research and development and time to migrate to new, more advanced processes. For example, we utilize 0.18um and 0.15um standard logic processes, which may only be available for the next five to seven years. Additionally, a portion of our products use 0.11um technology for memory die, which is being phased out in favor of 65nm technology to increase yields and decrease cost. Because of this transition, our customers must re-qualify the affected parts.

Shortages of materials used in the manufacturing of our products and other key components of our customers' products may increase our costs, impair our ability to ship our products on time and delay our ability to sell our products.

From time to time, shortages of components and materials that are critical to the manufacture of our products and our customers' products may occur. Such critical components and materials include semiconductor wafers and packages, double data rate memory die, display components, analog-to-digital converters, digital receivers, video decoders and voltage regulators. If material shortages occur, we may incur additional costs or be unable to ship our products to our customers in a timely fashion, both of which could harm our business and adversely affect our results of operations. Because of our long product development process and sales cycles, we may incur substantial costs before we earn associated revenue and ultimately may not sell as many units of our products as we originally anticipated.

We develop products based on anticipated market and customer requirements and incur substantial product development expenditures, which can include the payment of large up-front, third-party license fees and royalties, prior to generating associated revenue. Our work under these projects is technically challenging and places considerable demands on our limited resources, particularly on our most senior engineering talent. Additionally, the transition to smaller geometry process technologies continues to significantly increase the cost and complexity of new product development, particularly with regards to tooling, software tools, third party IP and engineering resources. Because the development of our products incorporates not only our complex and evolving technology, but also our customers' specific requirements, a lengthy sales process is often required before potential customers begin the technical evaluation of our products. Our customers typically perform numerous tests and extensively evaluate our products before incorporating them into their systems. The time required for testing, evaluation and design of our products into a customer's system can take up to nine months or more. It can take an additional nine months or longer before a customer commences volume shipments of systems that incorporate our products, if at all. Because of the lengthy development and sales cycles, we will experience delays between the time we incur expenditures for research and development, sales and marketing and inventory and the time we generate revenue, if any, from these expenditures.

Furthermore, we have entered into and may in the future enter into, co-development agreements that do not guarantee future sales volumes and limit our ability to sell the developed products to other customers. The exclusive nature of these development agreements increases our dependence on individual customers, particularly since we are limited in the number of products we are able to develop at any one time.

If actual sales volumes for a particular product are substantially less than originally anticipated, we may experience large write-offs of capitalized license fees, software development tools, product masks, inventories or other capitalized or deferred product-related costs, any of which would negatively affect our operating results.

Table of Contents

Our developed software may be incompatible with industry standards and challenging and costly to implement, which could slow product development or cause us to lose customers and design wins.

We provide our customers with software development tools and with software that provides basic functionality for our integrated circuits and enables enhanced connectivity of our customers' products. Software development is a complex process and we are dependent on software development languages and operating systems from vendors that may limit our ability to design software in a timely manner. Also, as software tools and interfaces change rapidly, new software languages introduced to the market may be incompatible with our existing systems and tools, requiring significant engineering efforts to migrate our existing systems in order to be compatible with those new languages. Software development disruptions could slow our product development or cause us to lose customers and design wins. The integration of software with our products adds complexity, may extend our internal development programs and could impact our customers' development schedules. This complexity requires increased coordination between hardware and software development schedules and increases our operating expenses without a corresponding increase in product revenue. This additional level of complexity lengthens the sales cycle and may result in customers selecting competitive products requiring less software integration.

The competitiveness and viability of our products could be harmed if necessary licenses of third-party technology are not available to us on terms that are acceptable to us or at all.

We license technology from independent third parties that is incorporated into our products or product enhancements. Future products or product enhancements may require additional third-party licenses that may not be available to us on terms that are acceptable to us or at all. In addition, in the event of a change in control of one of our licensors, it may become difficult to maintain access to its licensed technology. If we are unable to obtain or maintain any third-party license required to develop new products and product enhancements, we may have to obtain substitute technology with lower quality or performance standards, or at greater cost, either of which could seriously harm the competitiveness of our products.

Our limited ability to protect our IP and proprietary rights could harm our competitive position by allowing our competitors to access our proprietary technology and to introduce similar products.

Our ability to compete effectively with other companies depends, in part, on our ability to maintain the proprietary nature of our technology, including our semiconductor designs and software code. We provide the computer programming code for our software to customers in connection with their product development efforts, thereby increasing the risk that customers will misappropriate our proprietary software. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as nondisclosure agreements and other methods, to help protect our proprietary technologies. As of June 30, 2015, we held 132 patents and had 34 patent applications pending for protection of our significant technologies. Competitors in both the U.S. and foreign countries, many of whom have substantially greater resources than we do, may apply for and obtain patents that will prevent, limit or interfere with our ability to make and sell our products, or they may develop similar technology independently or design around our patents. Effective patent, copyright, trademark and trade secret protection may be unavailable or limited in foreign countries.

We cannot assure you that the degree of protection offered by patent or trade secret laws will be sufficient.

Furthermore, we cannot assure you that any patents will be issued as a result of any pending applications or that any claims allowed under issued patents will be sufficiently broad to protect our technology. We may incur significant costs to stop others from infringing our patents. In addition, it is possible that existing or future patents may be invalidated, diluted, circumvented, challenged or licensed to others.

Others may bring infringement or indemnification actions against us that could be time-consuming and expensive to defend.

We may become subject to claims involving patents or other intellectual property rights. In recent years, there has been significant litigation in the U.S. and in other jurisdictions involving patents and other intellectual property rights. This litigation is particularly prevalent in the semiconductor industry, in which a number of companies aggressively use their patent portfolios to bring infringement claims. In recent years, there has been an increase in the filing of so-called "nuisance suits," alleging infringement of intellectual property rights. These claims may be asserted initially or as counterclaims in response to claims made by a company alleging infringement of intellectual property rights.

These suits pressure defendants into entering settlement arrangements to quickly dispose of such suits, regardless of merit. We may also face claims brought by companies that are organized solely to hold and enforce patents. In addition, we may be required to indemnify our customers against IP claims related to their usage of our products as certain of our agreements include indemnification provisions from third parties relating to our intellectual property.

## Table of Contents

IP claims could subject us to significant liability for damages and invalidate our proprietary rights. Responding to such claims, regardless of their merit, can be time-consuming, result in costly litigation, divert management's attention and resources and cause us to incur significant expenses. As each claim is evaluated, we may consider the desirability of entering into settlement or licensing agreements. No assurance can be given that settlements will occur or that licenses can be obtained on acceptable terms or that litigation will not occur. In the event there is a temporary or permanent injunction entered prohibiting us from marketing or selling certain of our products, or a successful claim of infringement against us requiring us to pay damages or royalties to a third-party and we fail to develop or license a substitute technology, our business, results of operations or financial condition could be materially adversely affected. Any IP litigation or claims also could force us to do one or more of the following:

- stop selling products using technology that contains the allegedly infringing IP;
- attempt to obtain a license to the relevant IP, which may not be available on terms that are acceptable to us or at all;
- attempt to redesign those products that contain the allegedly infringing IP; or
- pay damages for past infringement claims that are determined to be valid or which are arrived at in settlement of such litigation or threatened litigation.

If we are forced to take any of the foregoing actions, we may incur significant additional costs or be unable to manufacture and sell our products, which could seriously harm our business. In addition, we may not be able to develop, license or acquire non-infringing technology under reasonable terms. These developments could result in an inability to compete for customers or otherwise adversely affect our results of operations.

Our products are characterized by average selling prices that can decline over relatively short periods of time, which will negatively affect our financial results unless we are able to reduce our product costs or introduce new products with higher average selling prices.

Average selling prices for our products can decline over relatively short periods of time, while many of our product costs are fixed. When our average selling prices decline, our gross profit declines unless we are able to sell more units or reduce the cost to manufacture our products. We have experienced declines in our average selling prices and expect that we will continue to experience them in the future, although we cannot predict when they may occur or how severe they will be. Our financial results will suffer if we are unable to offset any reductions in our average selling prices by increasing our sales volumes, reducing our costs, adding new features to our existing products or developing new or enhanced products in a timely manner with higher selling prices or gross profits.

The cyclical nature of the semiconductor industry may lead to significant variances in the demand for our products and could harm our operations.

In the past, the semiconductor industry has been characterized by significant downturns and wide fluctuations in supply and demand. Also, the industry has experienced significant fluctuations in anticipation of changes in general economic conditions, including economic conditions in Asia, Europe and North America. The cyclical nature of the semiconductor industry has also led to significant variances in product demand and production capacity. We have experienced, and may continue to experience, periodic fluctuations in our financial results because of changes in industry-wide conditions.

### Other Risks

The interest of our current or potential significant shareholders may conflict with other shareholders and they may attempt to effect changes at the Company or acquire control over the Company, which could adversely affect the Company's results of operations and financial condition.

Shareholders of the Company may from time to time engage in proxy solicitations, advance shareholder proposals, acquire control over the Company or otherwise attempt to effect changes, including by directly voting their shares on shareholder proposals. Campaigns by shareholders to effect changes at publicly traded companies are sometimes led by investors seeking to increase short-term shareholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. Responding to proxy contests and other actions by activist shareholders can be costly and time-consuming, disrupting the Company's operations and diverting the attention of the Company's Board of Directors and senior management from the pursuit of business strategies. Additionally, uncertainty over the Company's direction and leadership may negatively impact the Company's relationship with its customers and make it more difficult to attract and retain qualified personnel and

business partners. As a result, shareholder campaigns could adversely affect the Company's results of operations and financial condition.



Table of Contents

Future sales of our equity could result in significant dilution to our existing shareholders and depress the market price of our common stock.

We may need to seek additional capital from time to time. If this financing is obtained through the issuance of equity securities, debt convertible into equity securities, options or warrants to acquire equity securities or similar instruments or securities, our existing shareholders will experience dilution in their ownership percentage upon the issuance, conversion or exercise of such securities and such dilution could be significant. For example, we issued approximately 3.0 million and 4.2 million shares of our common stock in underwritten registered public offerings in August 2013 and May 2011, respectively. New equity securities issued by us could have rights, preferences or privileges senior to those of our common stock.

In addition, any such issuance by us or sales of our securities by our security holders, or the perception that such issuances or sales could occur, could negatively impact the market price of our securities. For example, a number of shareholders own significant blocks of our common stock. If one or more of these shareholders were to sell large portions of their holdings in a relatively short time, for liquidity or other reasons, the prevailing market price of our common stock could be negatively affected. This could result in further potential dilution to our existing shareholders and the impairment of our ability to raise capital through the sale of equity, debt or other securities.

The price of our common stock has and may continue to fluctuate substantially.

Our stock price and the stock prices of technology companies similar to Pixelworks have been highly volatile. The price of our common stock may decline and the value of your investment may be reduced regardless of our performance.

The daily trading volume of our common stock has historically been relatively low, although, during 2013, 2014 and 2015, trading volume increased compared to historical levels. As a result of the historically low volume, our shareholders may be unable to sell significant quantities of common stock in the public trading markets without a significant reduction in the price of our common shares. Additionally, market fluctuations, as well as general economic and political conditions, including recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of our common stock. Other factors that could negatively impact our stock price include:

- actual or anticipated fluctuations in our operating results;
- changes in or failure to meet expectations as to our future financial performance;
- changes in or failure to meet financial estimates of securities analysts;
- announcements by us or our competitors of technological innovations, design wins, contracts, standards, acquisitions or divestitures;
- the operating and stock price performance of other comparable companies;
- issuances or proposed issuances of equity, debt or other securities by us, or sales of securities by our security holders; and
- changes in market valuations of other technology companies.

Any inability or perceived inability of investors to realize a gain on an investment in our common stock could have an adverse effect on our business, financial condition and results of operations by potentially limiting our ability to retain our customers, to attract and retain qualified employees and to raise capital. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

We may be unable to maintain compliance with NASDAQ Marketplace Rules which could cause our common stock to be delisted from the NASDAQ Global Market. This could result in the lack of a market for our common stock, cause a decrease in the value of our common stock, and adversely affect our business, financial condition and results of operations.

Under the NASDAQ Marketplace Rules our common stock must maintain a minimum price of \$1.00 per share for continued inclusion on the NASDAQ Global Market. Our stock price was below \$1.00 as recently as May 6, 2009 and we cannot guarantee that our stock price will remain at or above \$1.00 per share. If the price again drops below \$1.00 per share, our stock could become subject to delisting, and we may seek shareholder approval for a reverse split,

which in turn could produce adverse effects and may not result in a long-term or permanent increase in the price of our common stock.

33

---

Table of Contents

In addition to the minimum \$1.00 per share requirement, the NASDAQ Global Market has other listing requirements, including: (i) a minimum of \$50.0 million in total asset value and \$50.0 million in revenues in the latest fiscal year or in two of the last three fiscal years; (ii) a minimum of \$50.0 million in market value of listed securities, \$15.0 million in market value of publicly held securities and at least 1.1 million publicly held shares; or (iii) a minimum of \$10.0 million in shareholders' equity. As of June 30, 2015, we were in compliance with these listing requirements based on the market value and holdings of our listed securities, and on the amount of shareholders' equity. However, as recently as June 30, 2013, our shareholders' equity was below \$10.0 million and we currently have, and expect to continue to have, a total asset value of less than \$50.0 million. In addition, as recently as during the second quarter of 2013, the aggregate market value of our listed securities was below \$50.0 million. Our stock price is volatile and we believe that we continue to remain susceptible to the market value of our listed securities and/or the market value of our publicly held securities falling below \$50.0 million and \$15.0 million, respectively. Accordingly, we cannot assure you that we will be able to continue to comply with the NASDAQ's listing requirements. Should we be unable to remain in compliance with these requirements, our stock could become subject to delisting.

If our common stock is delisted, trading of the stock will most likely take place on an over-the-counter market established for unlisted securities. An investor is likely to find it less convenient to sell, or to obtain accurate quotations in seeking to buy, our common stock on an over-the-counter market, and many investors may not buy or sell our common stock due to difficulty in accessing over-the-counter markets, or due to policies preventing them from trading in securities not listed on a national exchange or other reasons. For these reasons and others, delisting would adversely affect the liquidity, trading volume and price of our common stock, causing the value of an investment in us to decrease and having an adverse effect on our business, financial condition and results of operations by limiting our ability to attract and retain qualified executives and employees and limiting our ability to raise capital. The continued uncertain global economic environment and volatility in global credit and financial markets could materially and adversely affect our business and results of operations.

The state of the global economy continues to be uncertain. As a result of these conditions, our manufacturers, vendors and customers might experience deterioration of their businesses, cash flow shortages and difficulty obtaining financing which could result in interruptions or delays in the performance of any contracts, reductions and delays in customer purchases, delays in or the inability of customers to obtain financing to purchase our products, and bankruptcy of customers. Furthermore, the constraints in the capital and credit markets, may limit the ability of our customers to meet their liquidity needs, which could result in an impairment of their ability to make timely payments to us and reduce their demand for our products, adversely impacting our results of operations and cash flows. This environment has also made it difficult for us to accurately forecast and plan future business activities.

Table of Contents

The anti-takeover provisions of Oregon law and in our articles of incorporation could adversely affect the rights of the holders of our common stock, including by preventing a sale or takeover of us at a price or prices favorable to the holders of our common stock.

Provisions of our articles of incorporation and bylaws and provisions of Oregon law may have the effect of delaying or preventing a merger or acquisition of us, making a merger or acquisition of us less desirable to a potential acquirer or preventing a change in our management, even if our shareholders consider the merger, acquisition or change in management favorable or if doing so would benefit our shareholders. In addition, these provisions could limit the price that investors would be willing to pay in the future for shares of our common stock. The following are examples of such provisions:

- our board of directors is divided into three classes serving staggered terms, which would make it more difficult for a group of shareholders to quickly replace a majority of directors;
- our board of directors is authorized, without prior shareholder approval, to create and issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us or to effect a change of control, commonly referred to as "blank check" preferred stock;
- members of our board of directors can be removed only for cause and at a meeting of shareholders called expressly for that purpose, by the vote of 75 percent of the votes then entitled to be cast for the election of directors;
- our board of directors may alter our bylaws without obtaining shareholder approval; and shareholders are required to provide advance notice for nominations for election to the board of directors or for proposing matters to be acted upon at a shareholder meeting;
- Oregon law permits our board to consider other factors beyond stockholder value in evaluating any acquisition offer (so-called "expanded constituency" provisions); and
- a supermajority (67%) vote of shareholders is required to approve certain fundamental transactions.

Table of Contents

Item 6. Exhibits.

3.1	Sixth Amended and Restated Articles of Incorporation of Pixelworks, Inc., as amended (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 9, 2004).
3.2	Third Amendment to Sixth Amended and Restated Articles of Incorporation of Pixelworks, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 11, 2008).
3.3	Second Amended and Restated Bylaws of Pixelworks, Inc. (incorporated by reference to Exhibit 3.3 to the Company's annual report on Form 10-K filed on March 10, 2010).
4.1	Reference is made to Exhibit 3.1 above (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 declared effective May 19, 2000).
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

---

\* Exhibits 32.1 and 32.2 are being furnished and shall not be deemed to be "filed" for under the Securities Act of 1933, as amended (the "Securities Act") or the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, nor shall such exhibits be deemed to be incorporated by reference in any registration statement or other document filed under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing, except to the extent specifically stated in such filing.

Table of Contents

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PIXELWORKS, INC.

Dated: July 31, 2015

/s/ Steven L. Moore  
Steven L. Moore  
Vice President, Chief Financial Officer,  
Secretary and Treasurer  
(Duly Authorized Officer and Principal Accounting and Principal  
Financial Officer)

37

---

Table of Contents

EXHIBIT INDEX

Exhibit Number	Description
3.1	Sixth Amended and Restated Articles of Incorporation of Pixelworks, Inc., as amended (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 9, 2004).
3.2	Third Amendment to Sixth Amended and Restated Articles of Incorporation of Pixelworks, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 11, 2008).
3.3	Second Amended and Restated Bylaws of Pixelworks, Inc. (incorporated by reference to Exhibit 3.3 to the Company's annual report on Form 10-K filed on March 10, 2010).
4.1	Reference is made to Exhibit 3.1 above (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1 declared effective May 19, 2000).
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

---

\* Exhibits 32.1 and 32.2 are being furnished and shall not be deemed to be "filed" for under the Securities Act of 1933, as amended (the "Securities Act") or the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, nor shall such exhibits be deemed to be incorporated by reference in any registration statement or other document filed under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language

contained in such filing, except to the extent specifically stated in such filing.