

LATTICE SEMICONDUCTOR CORP

Form 10-Q

May 08, 2018

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 MARCH 31, 2018

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 000-18032

LATTICE SEMICONDUCTOR CORPORATION

(Exact name of Registrant as specified in its charter)

State of Delaware 93-0835214

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

111 SW Fifth Ave, Ste 700, Portland, OR 97204

(Address of principal executive offices) (Zip Code)

(503) 268-8000

(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 as 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," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer

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

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

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 outstanding as of May 4, 2018

124,768,669

---

Table of Contents

LATTICE SEMICONDUCTOR CORPORATION  
 QUARTERLY REPORT ON FORM 10-Q  
 TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION	Page
Item 1. <u>Financial Statements (unaudited)</u>	<u>4</u>
<u>Consolidated Statements of Operations – Three Months Ended March 31, 2018 and April 1, 2017 (unaudited)</u>	<u>4</u>
<u>Consolidated Statements of Comprehensive Loss – Three Months Ended March 31, 2018 and April 1, 2017 (unaudited)</u>	<u>5</u>
<u>Consolidated Balance Sheets - March 31, 2018 and December 30, 2017 (unaudited)</u>	<u>6</u>
<u>Consolidated Statements of Cash Flows – Three Months Ended March 31, 2018 and April 1, 2017 (unaudited)</u>	<u>7</u>
<u>Notes to Consolidated Financial Statements (unaudited)</u>	<u>8</u>
Item 2. <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>24</u>
Item 3. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>35</u>
Item 4. <u>Controls and Procedures</u>	<u>35</u>
 PART II. OTHER INFORMATION	
Item 1. <u>Legal Proceedings</u>	<u>36</u>
Item 1A. <u>Risk Factors</u>	<u>36</u>
Item 2. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>50</u>
Item 5. <u>Other Information</u>	<u>50</u>
Item 6. <u>Exhibits</u>	<u>50</u>
<u>Signatures</u>	<u>51</u>

Table of Contents

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These involve estimates, assumptions, risks, and uncertainties. Any statements about our expectations, beliefs, plans, objectives, assumptions, or future events or performance are not historical facts and may be forward-looking. We use words or phrases such as “anticipates,” “believes,” “could,” “estimates,” “expects,” “intends,” “plans,” “predicts,” “projects,” “should,” “continue,” “ongoing,” “future,” “potential,” and similar words or phrases to identify forward-looking statements.

Examples of forward-looking statements include, but are not limited to, statements about: our transitions to newly adopted accounting standards; the effect of the implementation of new accounting standards on our consolidated financial statements and financial results; the effects of product, end market and customer mix on our gross margin in the future; our strategies and beliefs regarding the markets in which we compete or may compete; growth opportunities and growth in markets we may serve; our making significant future investments in research and development; our expectations regarding cash provided by or used in operating activities; our expectations regarding total restructuring charges under and timing of restructuring plans adopted by our Board; our expectation that we will not pay U.S. federal income taxes until we fully realize our tax net operating loss and credit carryforwards; the sufficiency of our financial resources to meet our operating and working capital needs through at least the next 12 months; the advantages our technology provides to our customers, including advanced features in an increasingly intense global technology market; our future product development and marketing plans; our intention to continually introduce new products and enhancements and reduce manufacturing costs; our expectation of emerging technology trends; the anticipation that we will become increasingly dependent on revenue from newer products; our expectation of production volumes and the associated revenue stream for certain mobile handset providers; market acceptance of and demand for our devices; our continued participation in or sources of revenue from standard setting initiatives or consortia that develop and promote the High-Definition Multimedia Interface ("HDMI"), Mobile High-Definition Link ("MHL") and WirelessHD specifications; the effect of termination of our agent functions regarding the HDMI consortium, related reduction in adopter fees, revenue recognition, impairment charges and any other changes in the agreements relating to various intellectual property or standards consortia and their sharing of past or present fees or royalties; our expectations regarding sharing of HDMI royalty revenues; our plans to continue to monetize our patent portfolio through sales of non-core patents; our ability to adequately remediate our material weakness; our expectation that we will continue to transition to increasingly smaller geometry process technologies and the difficulties in transitioning; our need and ability to maintain or develop successful foundry relationships to produce new products; the adequacy of assembly and test capacity commitments; our expectations regarding taxes and tax adjustments, particularly with respect to the 2017 Tax Act; our conclusion that we should maintain a valuation allowance against certain tax assets; our belief that we may recognize certain tax benefits or penalties during the next twelve months; our ability to forecast uncertain tax positions; our ability to forecast future sales and the relative product mix of those revenues; our mitigation of the concentration of credit risk; our expectation that we may consider acquisition opportunities to further extend our product or technology portfolios and further expand our product offerings; our beliefs regarding the adequacy of our liquidity, capital resources and facilities; and our expectations regarding our implementation of a company-wide enterprise resource planning system.

Forward-looking statements involve estimates, assumptions, risks, and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. The key factors, among others, that could cause our actual results to differ materially from the forward-looking statements included global economic conditions and uncertainty, the concentration of our sales in certain end markets, particularly as it relates to the concentration of our sales in the Asia Pacific region, market acceptance and demand for our existing and new products, our ability to license our intellectual property, any disruption of our distribution channels, the impact of competitive products and pricing, unexpected charges, delays or results relating to our restructuring plans, unexpected complications with our implementation of a company-wide enterprise resource planning system, the effect of the downturn in the economy on

capital markets and credit markets, unanticipated taxation requirements or positions of the U.S. Internal Revenue Service, unanticipated effects of tax reform, or unexpected impacts of recent accounting guidance. In addition, actual results are subject to other risks and uncertainties that relate more broadly to our overall business, including those more fully described herein and that are otherwise described from time to time in our filings with the Securities and Exchange Commission, including, but not limited to, the items discussed in “Risk Factors” in Item 1A of Part II of this Quarterly Report on Form 10-Q.

You should not unduly rely on forward-looking statements because our actual results could differ materially from those expressed in any forward-looking statements made by us. In addition, any forward-looking statement applies only as of the date on which it is made. We do not plan to, and undertake no obligation to, update any forward-looking statements to reflect events or circumstances that occur after the date on which such statements are made or to reflect the occurrence of unanticipated events.

Table of Contents

## PART I. FINANCIAL INFORMATION

## ITEM 1. FINANCIAL STATEMENTS

LATTICE SEMICONDUCTOR CORPORATION  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(unaudited)

(In thousands, except per share data)	Three Months Ended	
	March 31, 2018	April 1, 2017
Revenue:		
Product	\$95,109	\$92,669
Licensing and services	3,514	11,918
Total revenue	98,623	104,587
Costs and expenses:		
Cost of product revenue	42,102	41,614
Cost of licensing and services revenue	—	2,141
Research and development	22,941	27,389
Selling, general, and administrative	27,043	23,905
Amortization of acquired intangible assets	5,636	8,514
Restructuring charges	1,029	66
Acquisition related charges	667	1,660
Total costs and expenses	99,418	105,289
Loss from operations	(795 )	(702 )
Interest expense	(5,114 )	(5,568 )
Other income (expense), net	554	(487 )
Loss before income taxes	(5,355 )	(6,757 )
Income tax expense	597	518
Net loss	\$(5,952 )	\$(7,275 )
Net loss per share, basic and diluted	\$(0.05 )	\$(0.06 )
Shares used in per share calculations, basic and diluted	124,076	121,800

See Accompanying Notes to Unaudited Consolidated Financial Statements.

Table of Contents

LATTICE SEMICONDUCTOR CORPORATION  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS  
 (unaudited)

---

(In thousands)	Three Months Ended	
	March 31, 2018	April 1, 2017
Net loss	\$(5,952)	\$(7,275)
Other comprehensive loss:		
Unrealized loss related to marketable securities, net of tax	(7	) (43
Reclassification adjustment for (gains) losses related to marketable securities included in other income (expense), net of tax	(1	) 170
Translation adjustment, net of tax	589	274
Comprehensive loss	\$(5,371)	\$(6,874)

See Accompanying Notes to Unaudited Consolidated Financial Statements.

Table of Contents

LATTICE SEMICONDUCTOR CORPORATION  
CONSOLIDATED BALANCE SHEETS  
(unaudited)

(In thousands, except share and par value data)	March 31, 2018	December 30, 2017
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$99,392	\$ 106,815
Short-term marketable securities	12,078	4,982
Accounts receivable, net of allowance for doubtful accounts	65,779	55,104
Inventories	77,917	79,903
Prepaid expenses and other current assets	25,405	16,567
Total current assets	280,571	263,371
Property and equipment, less accumulated depreciation of \$136,184 at March 31, 2018 and \$131,260 at December 30, 2017	37,674	40,423
Intangible assets, net	45,595	51,308
Goodwill	267,514	267,514
Deferred income taxes	200	198
Other long-term assets	13,279	13,147
Total assets	\$644,833	\$ 635,961
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable and accrued expenses (includes restructuring)	\$55,274	\$ 54,405
Accrued payroll obligations	8,975	10,416
Current portion of long-term debt	1,813	1,508
Deferred income and allowances on sales to distributors	—	17,250
Deferred licensing and services revenue	—	68
Total current liabilities	66,062	83,647
Long-term debt	298,995	299,667
Other long-term liabilities	34,104	34,954
Total liabilities	399,161	418,268
Contingencies (Note 15)	—	—
Stockholders' equity:		
Preferred stock, \$.01 par value, 10,000,000 shares authorized, none issued and outstanding	—	—
Common stock, \$.01 par value, 300,000,000 shares authorized; 124,311,000 shares issued and outstanding as of March 31, 2018 and 123,895,000 shares issued and outstanding as of December 30, 2017	1,243	1,239
Additional paid-in capital	701,713	695,768
Accumulated deficit	(456,413 )	(477,862 )
Accumulated other comprehensive loss	(871 )	(1,452 )
Total stockholders' equity	245,672	217,693
Total liabilities and stockholders' equity	\$644,833	\$ 635,961
See Accompanying Notes to Unaudited Consolidated Financial Statements.		



Table of Contents

LATTICE SEMICONDUCTOR CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(unaudited)

(In thousands)	Three Months Ended March 31, April 1, 2018      2017	
Cash flows from operating activities:		
Net loss	\$(5,952 )	\$(7,275 )
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	12,356	15,296
Amortization of debt issuance costs and discount	507	933
(Gain) loss on sale or maturity of marketable securities	(1 )	) 170
Loss (gain) on forward contracts	99	(78 )
Stock-based compensation expense	4,800	3,843
Gain on disposal of fixed assets	(58 )	) —
Impairment of cost-method investment	—	339
Changes in assets and liabilities:		
Accounts receivable, net	(8,867 )	) 33,563
Inventories	2,356	1,393
Prepaid expenses and other assets	(3,253 )	) 1,137
Accounts payable and accrued expenses (includes restructuring)	1,567	(35,029 )
Accrued payroll obligations	(1,441 )	) (1,706 )
Income taxes payable	413	(1,765 )
Deferred income and allowances on sales to distributors	—	(2,720 )
Deferred licensing and services revenue	(68 )	) (436 )
Net cash provided by operating activities	2,458	7,665
Cash flows from investing activities:		
Proceeds from sales of and maturities of short-term marketable securities	2,500	5,700
Purchases of marketable securities	(9,603 )	) (7,420 )
Capital expenditures	(1,804 )	) (3,374 )
Cash paid for software licenses	(1,837 )	) (1,617 )
Net cash used in investing activities	(10,744 )	) (6,711 )
Cash flows from financing activities:		
Restricted stock unit withholdings	(459 )	) (693 )
Proceeds from issuance of common stock	1,608	1,144
Repayment of debt	(875 )	) (10,780 )
Net cash provided by (used in) financing activities	274	(10,329 )
Effect of exchange rate change on cash	589	274
Net decrease in cash and cash equivalents	(7,423 )	) (9,101 )
Beginning cash and cash equivalents	106,815	106,552
Ending cash and cash equivalents	\$99,392	\$97,451
Supplemental cash flow information:		
Change in unrealized loss related to marketable securities, net of tax, included in Accumulated other comprehensive loss	\$7	\$43
Income taxes paid, net of refunds	\$40	\$222
Interest paid	\$4,420	\$5,025

Accrued purchases of plant and equipment	\$232	\$1,297
--	-------	---------

See Accompanying Notes to Unaudited Consolidated Financial Statements.

7

---

Table of Contents

LATTICE SEMICONDUCTOR CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(Unaudited)

Note 1 - Basis of Presentation and Significant Accounting Policies

The accompanying Consolidated Financial Statements are unaudited and have been prepared by Lattice Semiconductor Corporation ("Lattice," the "Company," "we," "us," or "our") pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") and in our opinion include all adjustments, consisting only of normal recurring adjustments, necessary for the fair statement of results for the interim periods. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") have been condensed or omitted as permitted by such rules and regulations. These Consolidated Financial Statements should be read in conjunction with our audited financial statements and notes thereto included in our Annual Report on Form 10-K for the fiscal year ended December 30, 2017.

Fiscal Reporting Period

We report based on a 52 or 53-week fiscal year ending on the Saturday closest to December 31. Our first quarter of fiscal 2018 and first quarter of fiscal 2017 ended on March 31, 2018 and April 1, 2017, respectively. All references to quarterly or three months ended financial results are references to the results for the relevant 13-week fiscal period.

Principles of Consolidation and Presentation

The accompanying Consolidated Financial Statements include the accounts of Lattice and its subsidiaries after the elimination of all intercompany balances and transactions.

Reclassifications

Certain amounts in the prior fiscal year in the accompanying consolidated financial statements and notes thereto have been reclassified to conform to the presentation adopted in the current fiscal year. These reclassifications had no material effect on the results of operations or financial position for any period presented. We had previously treated an investment as an equity-method investment and reported equity in net loss of an unconsolidated affiliate separately, amounting to approximately \$0.3 million for the three months ended April 1, 2017. We have reclassified the prior year loss to Other income (expense), net on our Consolidated Statements of Operations to be consistent with the current year treatment of the investment as a cost-method investment.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts and classification of assets, such as marketable securities, accounts receivable, contract assets (included in prepaid expenses and other current assets), inventory, goodwill (including the assessment of reporting units), intangible assets, current and deferred income taxes, accrued liabilities (including restructuring charges and bonus arrangements), disclosure of contingent assets and liabilities at the date of the financial statements, amounts used in acquisition valuations and purchase accounting, impairment assessments, and the reported amounts of product revenue, licensing and services revenue, and expenses during the fiscal periods presented. Actual results could differ from those estimates.

Cash Equivalents and Marketable Securities

We consider all investments that are readily convertible into cash and that have original maturities of three months or less to be cash equivalents. Cash equivalents consist primarily of highly liquid investments in time deposits or money market accounts and are carried at cost. We account for marketable securities as available-for-sale investments, as defined by U.S. GAAP, and record unrealized gains or losses to Accumulated other comprehensive loss on our Consolidated Balance Sheets, unless losses are considered other than temporary, in which case, those are recorded directly to the Consolidated Statements of Operations and Consolidated Statements of Comprehensive Loss. Deposits with financial institutions at times exceed Federal Deposit Insurance Corporation insurance limits.

## Table of Contents

### Fair Value of Financial Instruments

We invest in various financial instruments, which may include corporate and government bonds, notes, and commercial paper. We value these instruments at their fair value and monitor our portfolio for impairment on a periodic basis. In the event that the carrying value of an investment exceeds its fair value and the decline in value is determined to be other than temporary, we would record an impairment charge and establish a new carrying value. We assess other than temporary impairment of marketable securities in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 820, "Fair Value Measurements." The framework under the provisions of ASC 820 establishes three levels of inputs that may be used to measure fair value. Each level of input has different levels of subjectivity and difficulty involved in determining fair value.

Level 1 instruments generally represent quoted prices for identical assets or liabilities in active markets. Therefore, determining fair value for Level 1 instruments generally does not require significant management judgment, and the estimation is not difficult. Our Level 1 instruments consist of U.S. Government agency obligations, corporate notes and bonds, and commercial paper that are traded in active markets and are classified as Short-term marketable securities on our Consolidated Balance Sheets.

Level 2 instruments include inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices for identical instruments in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Our Level 2 instruments consist of foreign currency exchange contracts entered into to hedge against fluctuation in the Japanese yen.

Level 3 instruments include unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. As a result, the determination of fair value for Level 3 instruments requires significant management judgment and subjectivity. We did not have any Level 3 instruments during the periods presented.

### Foreign Exchange and Translation of Foreign Currencies

While our revenues and the majority of our expenses are denominated in U.S. dollars, we have international subsidiary and branch operations that conduct some transactions in foreign currencies, and we collect an annual Japanese consumption tax refund in yen. Gains or losses from foreign exchange rate fluctuations on balances denominated in foreign currencies are reflected in Other income (expense), net. Realized gains or losses on foreign currency transactions were not significant for the periods presented.

We translate accounts denominated in foreign currencies in accordance with ASC 830, "Foreign Currency Matters," using the current rate method under which asset and liability accounts are translated at the current rate, while stockholders' equity accounts are translated at the appropriate historical rates, and revenue and expense accounts are translated at average monthly exchange rates. Translation adjustments related to the consolidation of foreign subsidiary financial statements are reflected in Accumulated other comprehensive loss in Stockholders' equity (see "Note 10 - Changes in Stockholders' Equity and Accumulated Other Comprehensive Loss").

### Derivative Financial Instruments

We mitigate foreign currency exchange rate risk by entering into foreign currency forward exchange contracts, details of which are presented in the following table:

	March 31,	December 30,
	2018	2017

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

Total cost of contracts for Japanese yen (in thousands)	\$ 3,194	\$ 2,204
Number of contracts	3	2
Settlement month	June 2018	June 2018

Although these hedges mitigate our foreign currency exchange rate exposure from an economic perspective, they were not designated as "effective" hedges for accounting purposes and as such are adjusted to fair value through Other income (expense), net, with a loss of approximately \$0.1 million for the fiscal quarter ended March 31, 2018 and a gain of approximately \$0.1 million for the fiscal quarter ended December 30, 2017. We do not hold or issue derivative financial instruments for trading or speculative purposes.

Table of Contents

## Concentration Risk

Potential exposure to concentration risk may impact revenue, trade receivables, marketable securities, and supply of wafers for our products.

Customer concentration risk may impact revenue. The percentage of total revenue, with end customers known, attributable to our top five end customers and largest end customer is presented in the following table:

	Three Months Ended March 31, 2018	2017
Revenue attributable to top five end customers	16%	37%
Revenue attributable to largest end customer	4%	12%

No other end customer accounted for more than 10% of total revenue during these periods. We did not have enough information to assign end customers to approximately \$8.3 million of revenue recognized for the three months ended March 31, 2018 on shipments to distributors that have not sold through to end customers.

Distributors have historically accounted for a significant portion of our total revenue. Revenue attributable to distributors as a percentage of total revenue is presented in the following table:

	Three Months Ended March 31, 2018	2017
Revenue attributable to distributors*	87%	71%

\*During the first quarter of 2018, we updated our channel categories to group all forms of distribution into a single channel. Prior periods have been reclassified to match the current period presentation.

Our two largest distributor groups, Arrow Electronics, Inc. ("Arrow") and the Weikeng Group ("Weikeng"), also account for a substantial portion of our trade receivables. At March 31, 2018 and December 30, 2017, Arrow accounted for 52% and 54%, respectively, and Weikeng accounted for 15% and 2%, respectively, of gross trade receivables. No other distributor group or end customer accounted for more than 10% of gross trade receivables at these dates.

Concentration of credit risk with respect to trade receivables is mitigated by our credit and collection process, including active management of collections, credit limits, routine credit evaluations for essentially all customers, and secure transactions with letters of credit or advance payments where appropriate. We regularly review our allowance for doubtful accounts and the aging of our accounts receivable.

Accounts receivable do not bear interest and are shown net of allowances for doubtful accounts of \$9.4 million at both March 31, 2018 and December 30, 2017. The allowance for doubtful accounts reflects our best estimate of probable losses inherent in the accounts receivable balance. We determine the allowance based on assessment of known troubled accounts, analysis of the aging of our accounts receivable, historical experience, management judgment, and other currently available evidence. We write off accounts receivable against the allowance when we determine a balance is uncollectible and no longer actively pursue collection of the receivable. The amounts of accounts receivable written off were insignificant for all periods presented. Bad debt expense was negligible for both the first quarter of fiscal 2018 and the first quarter of fiscal 2017.

We place our investments primarily through one financial institution and mitigate the concentration of credit risk by limiting the maximum portion of the investment portfolio which may be invested in any one instrument. Our investment policy defines approved credit ratings for investment securities. Investments on-hand in marketable securities consisted primarily of money market instruments, "AA" or better corporate notes and bonds and commercial paper, and U.S. government agency obligations. See "Note 4 - Marketable Securities" for a discussion of the liquidity attributes of our marketable securities.

We rely on a limited number of foundries for our wafer purchases, including Fujitsu Limited, Seiko Epson Corporation, Taiwan Semiconductor Manufacturing Company, Ltd, and United Microelectronics Corporation. We seek to mitigate the concentration of supply risk by establishing, maintaining and managing multiple foundry relationships; however, certain of our products are sourced from a single foundry and changing from one foundry to another can have a significant cost, among other factors.

#### Revenue Recognition

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606). We adopted ASU 2014-09 and its related amendments, collectively known as Accounting Standards Codification 606 (ASC 606), effective December 31, 2017 using the modified retrospective method. Please see "Note 2 - Revenue from Contracts with Customers" for disclosures related to the impact of this standard and discussion of our updated policies related to revenue recognition and accounting for costs to obtain and fulfill customer contracts.



## Table of Contents

### Property and Equipment

Property and equipment are stated at cost. Depreciation and amortization are computed using the straight-line method for financial reporting purposes over the estimated useful lives of the related assets, generally three to five years for equipment and software, one to three years for tooling, and thirty years for buildings and building space. Leasehold improvements are amortized over the shorter of the non-cancelable lease term or the estimated useful life of the assets. Upon disposal of property and equipment, the accounts are relieved of the costs and related accumulated depreciation and amortization, and resulting gains or losses are reflected in the Consolidated Statements of Operations for recognized gains and losses or in the Consolidated Balance Sheets for deferred gains and losses. Repair and maintenance costs are expensed as incurred.

### Variable Interest Entities and Equity Investments in Privately Held Companies

We have an interest in an entity that is a Variable Interest Entity ("VIE"). If we are the primary beneficiary of a VIE, we are required to consolidate it. To determine if we are the primary beneficiary, we evaluate whether we have the power to direct the activities that most significantly impact the VIE's economic performance and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. Our evaluation includes identification of significant activities and an assessment of our ability to direct those activities based on governance provisions and arrangements to provide or receive product and process technology, product supply, operations services, equity funding, financing, and other applicable agreements and circumstances. Our assessments of whether we are the primary beneficiary of our VIE requires significant assumptions and judgments. We have concluded that we are not the primary beneficiary of this VIE as we do not have the power to direct the activities that most significantly impact the VIE's economic performance.

Equity investments in privately held companies that we are not required to consolidate are accounted for under the cost method, as assessed under ASC 325-20, "Cost Method Investments." These investments are reviewed on a quarterly basis to determine if their values have been impaired and adjustments are recorded as necessary. We assess the potential impairment of these investments by applying a fair value analysis using a revenue multiple approach. Declines in value that are judged to be other-than-temporary are reported in Other income (expense), net in the accompanying Consolidated Statements of Operations with a commensurate decrease in the carrying value of the investment (see "Note 8 - Cost Method Investment and Collaborative Arrangement"). Upon disposition of these investments, the specific identification method is used to determine the cost basis in computing realized gains or losses.

### Goodwill

Goodwill represents the excess of the purchase price over the fair value of the underlying net tangible and intangible assets. Goodwill is not amortized, but instead is tested for impairment annually or more frequently if certain indicators of impairment are present. We do not expect goodwill impairment to be tax deductible for income tax purposes. No impairment charges relating to goodwill were recorded for the first three months of fiscal 2018 or fiscal 2017 as no indicators of impairment were present.

During the first quarter of fiscal 2018, there have been no changes to the Goodwill balance of \$267.5 million presented in our Annual Report on Form 10-K for the fiscal year ended December 30, 2017.

### New Accounting Pronouncements

### Recently Issued Accounting Standards

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which requires the recognition of assets and liabilities arising from lease transactions on the balance sheet and will also require significant additional disclosures about the amount, timing, and uncertainty of cash flows from leases. Substantially all leases, including current operating leases, will be recognized by lessees on their balance sheet as a lease asset for its right to use the underlying asset and a lease liability for the corresponding lease obligation. The transition approaches available under the new guidance are pending finalization. For public business entities, the standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted for all entities. We have commenced our implementation efforts, which have focused on considerations for external consultation and development of a project plan. We are currently evaluating the impact of ASU 2016-02 on our consolidated financial statements and related disclosures, including the increase in the assets and liabilities on our balance sheet, and the impact on our current lease portfolio from both a lessor and lessee perspective. To facilitate this, we are utilizing a comprehensive approach to review our lease portfolio, as well as assessing system requirements and control implications. We believe that we have sufficient time and resources to complete our implementation efforts no later than the first quarter of fiscal 2019.

## Table of Contents

In August 2017, the FASB issued ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities, which improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements and simplifies the application of the hedge accounting guidance. This standard is effective for annual periods beginning after December 15, 2018, including interim periods within those annual periods, with early adoption permitted. We are currently evaluating the impact of ASU 2017-12 on our consolidated financial statements and related disclosures.

In February 2018, the FASB issued ASU 2018-02, Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. The new guidance allows an entity to reclassify the income tax effects of the Public Law 115-97 "An Act to Provide Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018", commonly known as the Tax Cuts and Job Act of 2017 (the "2017 Tax Act") on items within accumulated other comprehensive income/(loss) to retained earnings. This new guidance is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. The new standard must be adopted retrospectively to each period in which a taxpayer recognizes the effect of the change in the U.S. federal corporate income tax rate from the 2017 Tax Act. We are currently assessing the impact of ASU 2018-02 on our consolidated financial statements and related disclosures.

### Note 2 - Revenue from Contracts with Customers

We adopted ASC 606 effective on December 31, 2017, the first day of our 2018 fiscal year. Under the guidance in effect prior to the adoption of ASC 606, we deferred the recognition of revenue and the cost of revenue from certain sales until the distributors of our products reported that they had sold the products to their customers (known as "sell-through" revenue recognition). Under ASC 606, we recognize revenue on sales to all distributors upon shipment and transfer of control (known as "sell-in" revenue recognition). Under ASC 606, we will also recognize certain licensing revenues that were not recognizable under previous GAAP due to the fixed and determinable revenue recognition criteria not being met. As a result of this adoption, we revised our accounting policy for revenue recognition as detailed below.

We recognize revenue under the core principle of depicting the transfer of control to our customers in an amount reflecting the consideration we expect to be entitled. In order to achieve that core principle, we apply the following five step approach, as further described below: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to each performance obligation in the contract, and (5) recognize revenue when applicable performance obligations are satisfied.

#### Product Revenue

Identify the contract with a customer - Product revenues consist of sales to original equipment manufacturers, or OEMs, and distributors. We consider customer purchase orders, which in some cases are governed by master sales agreements, to be the contracts with a customer. In certain cases we consider firm forecasts that are agreed to by both us and the customer to be contracts. For sales to distributors, we have concluded that our contracts are with the distributor, rather than with the distributor's end customer, as we hold a contract bearing enforceable rights and obligations only with the distributor. As part of our consideration of the contract, we evaluate certain factors including the customer's ability to pay (or credit risk).

Identify the performance obligations in the contract - For each contract, we consider the promise to transfer products, each of which is distinct, to be the identified performance obligations.

Determine the transaction price - In determining the transaction price, we evaluate whether the price is subject to refund or adjustment to determine the net consideration to which we expect to be entitled. As our standard payment

terms are less than one year, we have elected to apply the practical expedient under ASC 606-10-32-18 to not assess whether a contract has a significant financing component.

Sales to most distributors are made under terms allowing certain price adjustments and limited rights of return of our products held in their inventory or upon sale to their end customers. Revenue from sales to distributors is recognized upon the transfer of control to the distributor, which generally occurs upon shipment of product to the distributor. Frequently, distributors need to sell at a price lower than the standard distribution price in order to win business. At the time the distributor invoices its customer or soon thereafter, the distributor submits a “ship and debit” price adjustment claim to us to adjust the distributor’s cost from the standard price to the pre-approved lower price. After we verify that the claim was pre-approved, a credit memo is issued to the distributor for the ship and debit claim. In determining the transaction price, we consider ship and debit price adjustments to be variable consideration. Such price adjustments are estimated using the expected value method based on an analysis of historical ship and debit claims, at the distributor and product level, over a period of time considered adequate to account for current pricing and business trends. Any differences between the estimated consideration and the actual amount received from the customer is recorded in the period that the actual consideration becomes known. Most of our distributors are entitled to limited rights of return, referred to as stock rotation, not to exceed 5% of billings, net of returns and ship and debit price adjustments. Stock rotation reserves are recorded based on historical return rates, as a reduction to revenue with a corresponding reduction to cost of goods sold for the estimated cost of inventory that is expected to be returned.

## Table of Contents

Sales to OEMs and certain distributors are made under terms that do not include rights of return or price concessions after the product is shipped. Accordingly, the transaction price equals the invoice price and there is no variable consideration.

Allocate the transaction price to each performance obligation in the contract - Because our product revenue contracts generally include the delivery of a certain quantity of semiconductors as the single performance obligation, there is no allocation of revenue required across distinct performance obligations. However, we frequently receive orders for products to be delivered over multiple dates that may extend across several reporting periods. We invoice for each delivery upon shipment and recognize revenues for each distinct product delivered, assuming transfer of control has occurred. Payment term for invoices are generally 30 to 60 days.

Recognize revenue when applicable performance obligations are satisfied - Revenue is recognized when control of the product is transferred to the customer (i.e., when our performance obligation is satisfied), which typically occurs at shipment. In determining whether control has transferred, we also consider if there is a present right to payment and legal title, along with whether the risks and rewards of ownership have transferred to the customer. We have certain vendor-managed inventory arrangements with certain OEM customers whereby we ship product into an inventory hub location but for which control does not transfer until the customer consumes the inventory. In such cases revenue is recognized upon customer consumption.

### Licensing and Services Revenue

Identify the contract with a customer - Our licensing and services revenue is comprised of revenue from our intellectual property ("IP") core licensing activity, patent monetization activities, and royalty and adopter fee revenue from our standards activities. These activities are complementary to our product sales and help us monetize our IP and accelerate marketing adoption curves associated with our technology and standards. We consider licensing arrangements with our customers to be the contract.

Identify the performance obligations in the contract - For each contract, we consider the promise to deliver a license that grants the customer the right to use the IP as well as any professional services provided under the contract, as distinct performance obligations.

Determine the transaction price - Our HDMI and MHL standards revenue, as well as certain IP licenses, include variable consideration in the form of usage-based royalties. We apply the provisions of ASC 606-10-55-65 in accounting for these types of arrangements, whereby we do not include estimated royalties in the transaction price at the origination of the contract but rather recognize royalty revenue as usage occurs.

HDMI royalty revenue is determined by a contractual allocation formula agreed to by the Founders of the HDMI consortium. The contractual allocation formula is subject to periodic adjustment, generally every three years. The most recent agreement expired on December 31, 2016 and a new agreement has not yet been entered into covering the period beginning January 1, 2017. While a new royalty sharing agreement is being negotiated with the other Founders of the HDMI consortium, the HDMI agent is unable to distribute the majority of the royalties collected to the Founders. We are recording revenue based on our estimated share of the royalties. This estimate will be adjusted once the Founders finalize the agreement.

Allocate the transaction price to each performance obligation in the contract - For contracts that include multiple performance obligations (most commonly those that include licenses and professional services), we allocate revenue to each performance obligation based on the best estimate of the standalone selling price of each obligation. The judgments regarding the allocation of revenue on licensing arrangements are not material to our financial statements.

Recognize revenue when applicable performance obligations are satisfied - We recognize license revenue at the point in time that control of the license transfers to the customer, which is generally upon delivery. We recognize professional service revenue as we perform the services. Royalty revenues are recognized as customers sell products that include our IP and are legally obligated to remit royalties to us. We receive payments from customers based on contractual billing schedules. Accounts receivable are recorded when the right to consideration becomes unconditional. Payment terms on invoiced amounts are typically 30 days.

Table of Contents

## Impact on Financial Statements

We adopted ASC 606, on December 31, 2017 using the modified retrospective method. Under this transition method, we applied the provisions of the new standard to all customer contracts which had not been completed as of the date of adoption and recorded the cumulative effect of adoption to Accumulated Deficit on December 31, 2017. We have not restated any prior financial statements presented. ASC 606 requires us to provide additional disclosures of the amount by which each financial statement line item is affected in the current reporting period during 2018 as compared to the guidance that was in effect in 2017, and an explanation of the reasons for significant changes. Such information is as follows:

Consolidated Statement of Operations	Three months ended March 31, 2018		
	As reported under new standard	Adjustments	Pro forma as if previous standard was in effect
(In thousands, except per share data)			
Product revenue	95,109	(8,265 )	86,844
Licensing and services revenue	3,514	(1,212 )	2,302
Cost of product revenue	42,102	(3,819 )	38,283
Net loss	(5,952 )	(5,658 )	(11,610 )
Net loss per share, basic and diluted	(0.05 )	(0.04 )	(0.09 )
Consolidated Balance Sheets	As of March 31, 2018		
(In thousands)	As reported under new standard	Adjustments	Pro forma as if previous standard was in effect
Accounts receivable, net of allowance for doubtful accounts	65,779	15,567	81,346
Inventories	77,917	(808 )	77,109
Prepaid expenses and other current assets	25,405	(9,102 )	16,303
Total assets	644,833	5,657	650,490
Accounts payable and accrued expenses (includes restructuring)	55,274	43	55,317
Deferred income and allowances on sales to distributors	—	38,673	38,673
Accumulated deficit	(456,413)	(33,059 )	(489,472)
Total liabilities and stockholders' equity	644,833	5,657	650,490
Consolidated Statement of Cash Flows	Three months ended March 31, 2018		
(In thousands)	As reported under new	Adjustments	Pro forma as if previous

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

	standard	standard was in effect
Cash flows from operating activities:		
Net loss	(5,952) (5,658 )	(11,610 )
Accounts receivable, net	(8,867) (17,375 )	(26,242 )
Inventories	2,356 438	2,794
Prepaid expenses and other assets	(3,253) 1,587	(1,666 )
Accounts payable and accrued expenses (includes restructuring)	1,567 (415 )	1,152
Deferred income and allowances on sales to distributors	— 21,423	21,423

The significant impacts of the new standard were to accelerate the recognition of revenues on both sales to certain distributors and certain licensing activities. As a result of adopting this standard, we recorded a cumulative effect adjustment of \$27.4 million as a reduction to accumulated deficit on December 31, 2017, resulting primarily from \$20.2 million of previously deferred distributor revenues and costs and \$6.6 million of previously unrecognized licensing revenues.



Table of Contents

## Other matters

We generally provide an assurance warranty that our products will substantially conform to the published specifications for twelve months from the date of shipment. In some case the warranty period may be longer than twelve months, but the nature of the warranty is still for covering assurance that the product complies with agreed upon specifications and they are not separately priced or sold. Our liability is limited to either a credit equal to the purchase price or replacement of the defective part. Returns under warranty have historically been immaterial. As such, we do not record a specific warranty reserve or consider activities related to such warranty, if any, to be a separate performance obligation.

Under the practical expedient provided by ASC 340-40-25-4, we generally expense sales commissions when incurred because the amortization period would have been less than one year. We record these costs within selling, general and administrative expenses.

Substantially all of our performance obligations are satisfied within twelve months. Accordingly, under the optional exemption provided by ASC 606-10-50-14, we do not disclose revenues allocated to future performance obligations of partially completed contracts.

We do not have any material contract liabilities recorded as of March 31, 2018. Contracts assets of \$9.1 million relate to our rights to consideration for licenses and royalties due to us as a member of the HDMI consortium, with collection dependent on events other than the passage of time, such as collection of licenses and royalties from customers by the HDMI licensing agent and the finalization of a new royalty sharing agreement. The contract assets are classified as Prepaid expenses and other current assets, and they are transferred to receivables when the rights become unconditional. During the quarter ended March 31, 2018, we recorded an additional \$1.6 million of contract asset.

## Disaggregation of revenue

The following tables provide information about revenue from contracts with customers disaggregated by major class of revenue and by geographical market, based on ship-to location of the end customer, where available, and ship-to location of distributor otherwise:

Major Class of Revenue	Three Months Ended	
	March 31, 2018	April 1, 2017 *
(In thousands)		
Product revenue - Distributors	85,957	74,080
Product revenue - Direct	9,152	18,589
Licensing and services revenue	3,514	11,918
Total revenue	98,623	104,587

Revenue by Geographical Market	Three Months Ended	
	March 31, 2018	April 1, 2017 *
(In thousands)		
Asia	71,921	73,458
Europe	12,142	11,080
Americas	14,560	20,049
Total revenue	98,623	104,587

\* As noted above, prior period amounts have not been adjusted under the modified retrospective method of adopting ASC 606 and, therefore, are presented under GAAP in effect during that period.

15

---

Table of Contents

## Note 3 - Net Loss per Share

We compute basic net loss per share by dividing net loss by the weighted average number of common shares outstanding during the period. To determine diluted share count, we apply the treasury stock method to determine the dilutive effect of outstanding stock option shares, restricted stock units ("RSUs"), and Employee Stock Purchase Plan ("ESPP") shares. Our application of the treasury stock method includes, as assumed proceeds, the average unamortized stock-based compensation expense for the period. When we are in a net loss position, we do not include dilutive securities as their inclusion would reduce the net loss per share.

A summary of basic and diluted net loss per share is presented in the following table:

(in thousands, except per share data)	Three Months Ended	
	March 31, 2018	April 1, 2017
Basic and diluted net loss	\$(5,952)	\$(7,275)
Shares used in basic and diluted net loss per share	124,076	121,800
Basic and diluted net loss per share	\$(0.05 )	\$(0.06 )

The computation of diluted net loss per share excludes the effects of stock options, RSUs, and ESPP shares that are antidilutive, aggregating approximately the following number of shares:

(in thousands)	Three Months Ended	
	March 31, 2018	April 1, 2017
Stock options, RSUs, and ESPP shares excluded as they are antidilutive	9,424	5,582

Stock options, RSUs, and ESPP shares are considered antidilutive when the aggregate of exercise price and unrecognized stock-based compensation expense are greater than the average market price for our common stock during the period or when the Company is in a net loss position, as the effects would reduce the loss per share. Stock options, RSUs, and ESPP shares that are antidilutive at March 31, 2018 could become dilutive in the future.

## Note 4 - Marketable Securities

We classify our marketable securities as short-term based on their nature and availability for use in current operations. In the periods presented, our Short-term marketable securities consisted of government bonds with contractual maturities of up to two years. The following table summarizes the remaining maturities of our Short-term marketable securities at fair value:

(In thousands)	March 31, December 30,	
	2018	2017
Short-term marketable securities:		
Maturing within one year	\$ 4,982	\$ 4,982
Maturing between one and two years	7,096	—
Total marketable securities	\$ 12,078	\$ 4,982

## Note 5 - Fair Value of Financial Instruments

Fair value measurements as of	Fair value measurements as of
	of

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

(In thousands)	March 31, 2018				December 30, 2017			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Short-term marketable securities	\$12,078	\$12,078	\$—	\$—	-\$4,982	\$4,982	\$—	\$—
Foreign currency forward exchange contracts, net	(99 )	—	(99 )	—	77	—	77	—
Total fair value of financial instruments	\$11,979	\$12,078	\$(99)	\$—	-\$5,059	\$4,982	\$ 77	\$—

16

---

Table of Contents

We invest in various financial instruments that may include corporate and government bonds and notes, commercial paper, and certificates of deposit. In addition, we enter into foreign currency forward exchange contracts to mitigate our foreign currency exchange rate exposure. We carry these instruments at their fair value in accordance with ASC 820, "Fair Value Measurements." The framework under the provisions of ASC 820 establishes three levels of inputs that may be used to measure fair value. Each level of input has different levels of subjectivity and difficulty involved in determining fair value, as summarized in "Note 1 - Basis of Presentation and Significant Accounting Policies." There were no transfers between any of the levels during the first three months of fiscal 2018 or 2017.

In accordance with ASC 320, "Investments-Debt and Equity Securities," we recorded an unrealized loss of less than \$0.1 million during each of the three months ended March 31, 2018 and April 1, 2017 on certain Short-term marketable securities (Level 1 instruments), which have been recorded in Accumulated other comprehensive loss. Future fluctuations in fair value related to these instruments that we deem to be temporary, including any recoveries of previous write-downs, would be recorded to Accumulated other comprehensive loss. If we were to determine in the future that any further decline in fair value is other-than-temporary, we would record an impairment charge, which could have a material adverse effect on our operating results. If we were to liquidate our position in these securities, it is likely that the amount of any future realized gain or loss would be different from the unrealized gain or loss reported in Accumulated other comprehensive loss.

## Note 6 - Inventories

(In thousands)	March 31, 2018	December 30, 2017
Work in progress	\$ 50,522	\$ 49,642
Finished goods	27,395	30,261
Total inventories	\$ 77,917	\$ 79,903

## Note 7 - Intangible Assets

In connection with our acquisitions of Silicon Image, Inc. ("Silicon Image") in March 2015 and SiliconBlue Technologies, Inc. ("SiliconBlue") in December 2011, we recorded identifiable intangible assets related to developed technology, customer relationships, licensed technology, patents, and in-process research and development based on guidance for determining fair value under the provisions of ASC 820, "Fair Value Measurements." Additionally, during fiscal 2015, we licensed additional third-party technology.

We monitor the carrying value of our intangible assets for potential impairment and test the recoverability of such assets annually during the fourth quarter and whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. When we are required to determine the fair value of intangible assets other than goodwill, we use the income approach. We start with a forecast of all expected net cash flows associated with the asset and then apply a discount rate to arrive at fair value. No impairment charges related to intangible assets were recorded for the first three months of either fiscal 2018 or fiscal 2017 as no indicators of impairment were present.

In the first quarter of fiscal 2017, we sold a portfolio of patents that had been acquired in our acquisition of Silicon Image for \$18.0 million. This amount was received in two installments over the first and second quarters of fiscal 2017, and was recognized as licensing and services revenue in our Consolidated Statements of Operations during the respective periods in which the installment payments were received. As a result of this transaction, Intangible assets, net was reduced by approximately \$3.5 million on our Consolidated Balance Sheets.

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

On our Consolidated Balance Sheets at March 31, 2018 and December 30, 2017, Intangible assets, net are shown net of accumulated amortization of \$106.1 million and \$100.3 million, respectively.

We recorded amortization expense related to intangible assets on the Consolidated Statements of Operations as presented in the following table:

(In thousands)	Three Months Ended	
	March 31, 2018	April 1, 2017
Research and development	\$ 127	\$ 173
Amortization of acquired intangible assets	5,636	8,514
	\$5,763	\$8,687

Table of Contents

## Note 8 - Cost Method Investment and Collaborative Arrangement

During fiscal 2015, we purchased a series of preferred stock ownership interests in a privately-held company that designs human-computer interaction technology for total consideration of \$5.0 million. This gross investment constituted a 22.7% ownership interest. In the third quarter of fiscal 2016, we made an additional investment of \$1.0 million via a convertible debt instrument, bringing our gross investment in the investee to \$6.0 million.

In 2017, we signed new development and licensing contracts with the investee, and the investee incurred preferred debt that effectively subordinates our ownership position between their debt and common shareholders. After evaluating these events and our investment position, we concluded that we have a variable interest in the privately-held company. However, we are not the primary beneficiary of the investee, are not holding in-substance common stock, and do not have a significant amount of influence to direct the activities that most significantly impact the investee's economic performance. Accordingly, we account for our investment in this company under the cost method.

Through March 31, 2018, we have reduced the value of our investment by approximately \$3.7 million. The net balance of our investment included in Other long-term assets in the Consolidated Balance Sheets is approximately \$2.3 million.

At March 31, 2018, our maximum exposure to loss as a result of involvement with this VIE totals \$3.8 million, which is comprised of the \$2.3 million carrying value of our investment plus \$1.5 million of prepaid royalties further described in the section below on the related collaborative arrangement.

We assessed this investment for impairment as of March 31, 2018 by applying a fair value analysis using a revenue multiple approach and concluded that no impairment adjustment was necessary during the first quarter of fiscal 2018. Approximately \$0.3 million of impairment of a cost method investment is included in Other income (expense), net on our Consolidated Statements of Operations for the three months ended April 1, 2017.

## Collaborative Arrangement

Concurrent with the initiation of the investment discussed above, we entered into a collaborative arrangement with the investee during fiscal 2015. Under this arrangement, the parties undertook the development of certain fast, multi-touch sensing devices for touch screen controller applications. The new development and licensing agreements we entered into in 2017 specified the transfer of certain Intellectual Property ("IP") from the investee to us, payment of royalties from us to the investee and from investee to us for future sales of co-developed products, as well as an agreement to perform certain services for each other at no charge. We will also make quarterly payments to the investee. These will be automatically credited against any future revenue share amount owed to investee and will be accounted for as prepaid royalties under ASC 340-10-05-05. In the first quarter of fiscal 2018, we made a quarterly payment of \$0.9 million. As of March 31, 2018, expected future royalty prepayments are as follows:

Fiscal year	(in thousands)
2018 (remaining 9 months)	\$ 2,625
2019	\$ 5,000

At March 31, 2018, royalties prepaid to the investee total \$1.5 million. Of this amount, approximately \$0.2 million are included in Prepaid expenses and other current assets, and approximately \$1.3 million are included in Other long-term assets in our Consolidated Balance Sheets. There is no liability related to the future payments, as the agreement is cancelable.

## Note 9 - Accounts Payable and Accrued Expenses

Included in Accounts payable and accrued expenses are the following balances:

(In thousands)	March 31, December 30,	
	2018	2017
Trade accounts payable	\$ 35,477	\$ 35,350
Deferred rent	3,835	3,834
Liability for non-cancelable contracts	3,596	4,531
Other accrued expenses	12,366	10,690
Total accounts payable and accrued expenses	\$ 55,274	\$ 54,405



Table of Contents

## Note 10 - Changes in Stockholders' Equity and Accumulated Other Comprehensive Loss

(In thousands)	Common stock	Additional Paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Total
Balances, December 30, 2017	\$ 1,239	\$ 695,768	\$ (477,862 )	\$ (1,452 )	\$ 217,693
Net loss for the three months ended March 31, 2018	—	—	(5,952 )	—	(5,952 )
Unrealized loss related to marketable securities, net of tax	—	—	—	(7 )	(7 )
Recognized loss on redemption of marketable securities, previously unrealized	—	—	—	(1 )	(1 )
Translation adjustments, net of tax	—	—	—	589	589
Common stock issued in connection with the exercise of stock options, ESPP and vested RSUs, net of tax	4	1,145	—	—	1,149
Stock-based compensation related to stock options, ESPP and RSUs	—	4,800	—	—	4,800
Accounting method transition adjustment (1)	—	—	27,401	—	27,401
Balances, March 31, 2018	\$ 1,243	\$ 701,713	\$ (456,413 )	\$ (871 )	\$ 245,672

As of the beginning of fiscal 2018, we adopted ASC 606, Revenue from Contracts With Customers, using the (1) modified retrospective transition method. As a result of this adoption, we recorded a cumulative-effect adjustment to Accumulated Deficit, as shown in the table above.

## Note 11 - Income Taxes

For the three months ended March 31, 2018 and April 1, 2017, we recorded an income tax provision of approximately \$0.6 million and \$0.5 million, respectively. The income tax provisions for the three months ended March 31, 2018 and April 1, 2017 represent tax at the federal, state, and foreign statutory tax rates adjusted for withholding taxes, changes in uncertain tax positions, changes in the U.S. valuation allowance, as well as other non-deductible items in the United States and foreign jurisdictions. The difference between the U.S. federal statutory tax rate of 21% and our effective tax rate for the three months ended March 31, 2018 results from an increase in the valuation allowance that offsets expected tax benefit in the United States, foreign rate differential and withholding taxes, zero tax rate in Bermuda which results in no tax benefit for the pretax loss in Bermuda, and discrete benefit from the release of uncertain tax positions.

Through March 31, 2018, we continued to evaluate the valuation allowance position in the United States and concluded we should maintain a valuation allowance against the net federal and state deferred tax assets. We will continue to evaluate both positive and negative evidence in future periods to determine if more deferred tax assets should be recognized. We don't have a valuation allowance in any foreign jurisdictions as it has been concluded it is more likely than not that we will realize the net deferred tax assets in future periods.

We are subject to federal and state income tax as well as income tax in the various foreign jurisdictions in which we operate. Additionally, the years that remain subject to examination are 2014 for federal income taxes, 2013 for state income taxes, and 2011 for foreign income taxes, including years ending thereafter. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating losses or credit carryforward amount.

Our income tax returns are currently under examination in China for 2014 through 2016, in the Philippines for 2016, and in the Philippines for a Philippines-based branch of our Singapore subsidiary for 2013 through 2017. We are not under examination in any other jurisdiction.

We believe that it is reasonably possible that \$1.8 million of unrecognized tax benefits and \$0.1 million of associated interest and penalties could be recognized during the next twelve months. The \$1.9 million potential change would represent a decrease in unrecognized tax benefits, comprised of items related to tax filings for years that will no longer be subject to examination under expiring statutes of limitations.

## Table of Contents

At December 30, 2017, we had U.S. federal net operating loss ("NOL") carryforwards (pretax) of approximately \$351.4 million that expire at various dates between 2018 and 2037. We had state NOL carryforwards (pretax) of approximately \$162.9 million that expire at various dates from 2018 through 2037. We also had federal and state credit carryforwards of \$50.2 million and \$59.2 million, respectively. Of the total \$59.2 million state credit carryforwards, \$57.9 million do not expire. The remaining credits expire at various dates from 2018 through 2037.

Our liability for uncertain tax positions (including penalties and interest) was \$26.9 million at both March 31, 2018 and December 30, 2017 and is recorded as a component of Other long-term liabilities on our Consolidated Balance Sheets. The remainder of our uncertain tax position exposure of \$24.6 million is netted against deferred tax assets.

The Tax Cuts and Jobs Act (the "2017 Tax Act"), enacted December 22, 2017, contains provisions that affect us, but the impact will be absorbed by utilizing NOL carry forwards. Reduction of the corporate tax rate from 35% to 21% reduced the value of our domestic deferred tax assets and reduced our associated full valuation allowance on those assets, resulting in no net impact on our Consolidated Statements of Operation.

U.S. tax reform required a deemed repatriation of deferred foreign earnings as of December 30, 2017 and no future U.S. taxes should be due on these earnings because of enactment of a 100% dividends received deduction. At December 30, 2017, we had no impact from this transition tax due to negative post-1986 earnings and profits. Foreign earnings may be subject to withholding taxes if they are distributed and repatriated to Lattice in the United States.

In March 2018, the FASB issued ASU 2018-05, Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118 ("SAB 118"). The SEC issued SAB 118 on December 22, 2017 to address the situation where an SEC reporting company did not have all the necessary information available or analyzed to complete their accounting for the income tax effects of the 2017 Tax Act in the period of enactment. Due to the lack of authoritative guidance issued, complexity, and enactment timing of the 2017 Tax Act, we made a reasonable estimate of the income tax effect of the deemed repatriation of deferred foreign earnings. We may refine this as additional guidance, clarification, and analysis is available. Any changes to our estimate will be reflected in continuing operations in the period the amounts are determined and within the "measurement period" allowed under SAB 118. As of March 31, 2018, we have not completed our accounting for the tax effect of the 2017 Tax Act, and we have made no change to the provisional amounts recorded at December 30, 2017.

We are not currently paying U.S. federal income taxes and do not expect to pay such taxes until we fully utilize our tax NOL and credit carryforwards. We expect to pay a nominal amount of state income tax. We are paying foreign income and withholding taxes, which are reflected in income tax expense in our Consolidated Statements of Operations and are primarily related to the cost of operating offshore activities and subsidiaries. We accrue interest and penalties related to uncertain tax positions in income tax expense.

## Note 12 - Restructuring

In March 2015, our Board of Directors approved an internal restructuring plan (the "March 2015 Plan"), in connection with our acquisition of Silicon Image. The March 2015 Plan was designed to realize synergies from the acquisition by eliminating redundancies created as a result of combining the two companies. This included reductions in our worldwide workforce, consolidation of facilities, and cancellation of software contracts and engineering tools. The March 2015 Plan is substantially complete subject to certain remaining expected costs that we do not expect to be material and any changes in sublease assumptions should they occur, which we will expense as incurred. Under this plan, no expense and approximately \$0.3 million of expense was incurred during the three months ended March 31, 2018 and April 1, 2017, respectively. Approximately \$20.5 million of total expense has been incurred through March 31, 2018 under the March 2015 Plan, and we believe this amount approximates the total costs under the plan.

In September 2015, we implemented a further reduction of our worldwide workforce (the "September 2015 Reduction") separate from the March 2015 Plan. The September 2015 Reduction was designed to resize the company in line with the market environment and to better balance our workforce with the long-term strategic needs of our business. The September 2015 Reduction is substantially complete subject to certain remaining expected costs that we do not expect to be material, which we will expense as incurred. Under this reduction, no expense and approximately \$0.2 million of credit was incurred during the three months ended March 31, 2018 and April 1, 2017, respectively. Approximately \$7.2 million of total expense has been incurred through March 31, 2018 under the September 2015 Reduction, and we believe this amount approximates the total costs under the plan.

Table of Contents

In June 2017, our Board of Directors approved an additional internal restructuring plan (the "June 2017 Plan"), which included the sale of 100% of the equity of our Hyderabad, India subsidiary and certain assets related to our Simplay Labs testing and certification business, a worldwide workforce reduction, and an initiative to reduce our infrastructure costs. These actions are part of an overall plan to achieve financial targets and to enhance our financial and competitive position by better aligning our revenue and operating expenses. Under this plan, approximately \$1.0 million of expense was incurred during the three months ended March 31, 2018. Approximately \$9.0 million of total expense has been incurred through March 31, 2018 under the June 2017 Plan, and we expect the total cost to be approximately \$8.0 million to \$12.0 million and to be substantially completed by the end of the fourth quarter of fiscal 2018.

These expenses were recorded to Restructuring charges on our Consolidated Statements of Operations. The restructuring accrual balance is presented in Accounts payable and accrued expenses (includes restructuring) on our Consolidated Balance Sheets. The following table displays the combined activity related to the restructuring actions described above:

(In thousands)	Severance & related *	Lease Termination	Software Contracts & Engineering Tools **	Other	Total
Balance at December 31, 2016	\$ 801	\$ 1,036	\$ 25	\$ 12	\$ 1,874
Restructuring charges	(248 )	63	—	251	66
Costs paid or otherwise settled	(52 )	(1,049 )	(25 )	(234)	(1,360 )
Balance at April 1, 2017	\$ 501	\$ 50	\$ —	\$ 29	\$ 580
Balance at December 30, 2017	\$ 1,192	\$ 870	\$ 360	\$ 25	\$ 2,447
Restructuring charges	241	13	738	37	1,029
Costs paid or otherwise settled	(908 )	(85 )	(700 )	(31 )	(1,724 )
Balance at March 31, 2018	\$ 525	\$ 798	\$ 398	\$ 31	\$ 1,752

\* Includes employee relocation costs and retention bonuses

\*\*Includes cancellation of contracts

## Note 13 - Long-Term Debt

On March 10, 2015, we entered into a secured credit agreement (the "Credit Agreement") with Jefferies Finance, LLC and certain other lenders for purposes of funding, in part, our acquisition of Silicon Image. The Credit Agreement provided for a \$350 million term loan (the "Term Loan") maturing on March 10, 2021 (the "Term Loan Maturity Date"). We received \$346.5 million net of an original issue discount of \$3.5 million and we paid debt issuance costs of \$8.3 million. The Term Loan bears variable interest equal to the one-month LIBOR, subject to a 1.00% floor, plus a spread of 4.25%. The current effective interest rate on the Term Loan is 6.59%.

The Term Loan is payable through a combination of (i) quarterly installments of approximately \$0.9 million, (ii) annual excess cash flow payments as defined in the Credit Agreement, which are due 95 days after the last day of our fiscal year, and (iii) any payments due upon certain issuances of additional indebtedness and certain asset dispositions, with any remaining outstanding principal amount due and payable on the Term Loan Maturity Date. The percentage of excess cash flow we are required to pay ranges from 0% to 75%, depending on our leverage and other factors as defined in the Credit Agreement. Currently, the Credit Agreement would require a 75% excess cash flow payment.

In the first quarter of fiscal 2018, we made a required quarterly installment payment of \$0.9 million. Over the next twelve months, our principal payments will be comprised mainly of regular quarterly installments and a required

annual excess cash flow payment.

While the Credit Agreement does not contain financial covenants, it does contain informational covenants and certain restrictive covenants, including limitations on liens, mergers and consolidations, sales of assets, payment of dividends, and indebtedness. We were in compliance with all such covenants in all material respects at March 31, 2018.

The original issue discount and the debt issuance costs have been accounted for as a reduction to the carrying value of the Term Loan on our Consolidated Balance Sheets and are being amortized to Interest expense in our Consolidated Statements of Operations over the contractual term, using the effective interest method.

Table of Contents

The fair value of the Term Loan approximates the carrying value, which is reflected in our Consolidated Balance Sheets as follows:

(In thousands)	March 31, December 30,	
	2018	2017
Principal amount	\$305,917	\$ 306,791
Unamortized original issue discount and debt costs	(5,109 )	(5,616 )
Less: Current portion of long-term debt	(1,813 )	(1,508 )
Long-term debt	\$298,995	\$ 299,667

Interest expense related to the Term Loan was included in Interest expense on our Consolidated Statements of Operations as follows:

(In thousands)	Three Months Ended	
	March 31, 2018	April 1, 2017
Contractual interest	\$4,528	\$4,543
Amortization of debt issuance costs and discount	507	933
Total Interest expense related to the Term Loan	\$5,035	\$5,476

As of March 31, 2018, expected future principal payments on the Term Loan were as follows:

Fiscal year	(in thousands)
2018 (remaining 9 months)	\$ 2,884
2019	31,580
2020	54,115
2021	217,338
	\$ 305,917

## Note 14 - Stock-Based Compensation

Total stock-based compensation expense included in our Consolidated Statements of Operations is presented in the following table:

(In thousands)	Three Months Ended	
	March 31, 2018	April 1, 2017
Cost of products sold	\$237	\$ 228
Research and development	1,207	1,850
Selling, general, and administrative	3,356	1,765
Total stock-based compensation	\$4,800	\$3,843

The stock-based compensation expense included in Selling, general, and administrative expense for the first quarter of fiscal 2018 includes approximately \$1.4 million of additional one-time expense accelerated under the CEO separation agreement executed with our retired CEO during the period.

In fiscal years 2015 through 2017, we granted stock options and RSUs with a market condition to certain executives. The options have a two year vesting period and can vest between 0% and 200% of the target amount, based on the

Company's relative Total Shareholder Return ("TSR") when compared to the TSR of a component of companies in the PHLX Semiconductor Sector Index over a two year period. TSR is a measure of stock price appreciation plus dividends paid, if any, in the performance period. The fair values of the options and RSUs were determined and fixed on the date of grant using a lattice-based option-pricing valuation model incorporating a Monte-Carlo simulation and a consideration of the likelihood that we would achieve the market condition.



Table of Contents

The following table summarizes the activity for our stock options with a market condition during the first quarter of fiscal 2018:

(Shares in thousands)	Unvested	Vested	Total
Balance, December 30, 2017	707	83	790
Vested	(31 )	31	—
Canceled	31	(10 )	21
Balance, March 31, 2018	707	104	811

We incurred stock compensation expense related to these market condition awards of approximately \$0.3 million and \$0.2 million in the first quarter of fiscal 2018 and the first quarter of fiscal 2017, respectively, which is recorded as a component of total stock-based compensation expense.

## Note 15 - Contingencies

## Legal Matters

From time to time, we are exposed to certain asserted and unasserted potential claims. Periodically, we review the status of each significant matter and assess its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and a range of possible losses can be estimated, we then accrue a liability for the estimated loss. Legal proceedings are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, accruals are based only on the best information available at the time. As additional information becomes available, we reassess the potential liability related to pending claims and litigation and may revise estimates.

## Other Matters

We maintain certain Value-Added Tax ("VAT") benefits derived from our research and development operations that require filing tax exempt status documentation with local taxing authorities. In relation to one of our Chinese legal entities, we are undergoing an audit of this documentation as of March 31, 2018. This audit may or may not result in favorable or unfavorable findings. Due to the uncertainty in both the outcome and the estimated range of any findings, no liability has been accrued as of March 31, 2018. We believe the findings would not have a material impact on our Consolidated Financial Statements and could be in a range from \$0 to less than \$2 million.

## Note 16 - Segment and Geographic Information

## Segment Information

As of March 31, 2018, Lattice had one operating segment: the core Lattice business, which includes semiconductor devices, evaluation boards, development hardware, and related intellectual property licensing and sales.

## Geographic Information

Our revenue by major geographic area is presented in "Note 2 - Revenue from Contracts with Customers".

Our Property and equipment, net by country at the end of each period was as follows:

(In thousands)	March 31, December 30,	
	2018	2017
United States	\$ 28,921	\$ 30,338

China	3,446	4,632
Philippines	3,237	3,883
Taiwan	1,014	958
Japan	353	313
Other	703	299
Total foreign property and equipment, net	8,753	10,085
Total property and equipment, net	\$ 37,674	\$ 40,423

Table of ContentsITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF  
FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## Overview

Lattice Semiconductor and its subsidiaries ("Lattice," the "Company," "we," "us," or "our") develops semiconductor technologies that we monetize through products, solutions, and licenses. We engage in smart connectivity solutions, providing intellectual property ("IP") and low-power, small form-factor devices that enable global customers to quickly and easily develop innovative, smart, and connected products. We help their products become more aware, interact more intelligently, and make better and faster connections. In an increasingly intense global technology market, we help our customers get their products to market faster than their competitors. Our broad end-market exposure extends from mobile devices and consumer electronics to industrial and automotive equipment, communications and computing infrastructure, and licensing. Lattice was founded in 1983 and is headquartered in Portland, Oregon.

## Critical Accounting Policies and Use of Estimates

Critical accounting policies are those that are both most important to the portrayal of a company's financial condition and results and require management's most difficult, subjective, and complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

Other than our updated policies related to revenue recognition and accounting for costs to obtain and fulfill a customer contract (further discussed in "Note 2 - Revenue from Contracts with Customers" under Part 1, Item 1 of this report), management believes that there have been no significant changes to the items that we disclosed as our critical accounting policies and estimates in Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on form 10-K for the fiscal year ended December 30, 2017.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts and classification of assets, such as marketable securities, accounts receivable, contract assets included in prepaid expenses and other current assets, inventory, goodwill (including the assessment of reporting unit), intangible assets, current and deferred income taxes, accrued liabilities (including restructuring charges and bonus arrangements), disclosure of contingent assets and liabilities at the date of the financial statements, amounts used in acquisition valuations and purchase accounting, impairment assessments, and the reported amounts of product revenue, licensing and services revenue, and expenses during the fiscal periods presented. Actual results could differ from those estimates.

## Results of Operations

Key elements of our Consolidated Statements of Operations are presented in the following table:

(In thousands)	Three Months Ended			
	March 31, 2018		April 1, 2017	
Revenue	\$98,623	100.0 %	\$104,587	100.0 %
Gross margin	56,521	57.3	60,832	58.2
Research and development	22,941	23.3	27,389	26.2
Selling, general and administrative	27,043	27.4	23,905	22.9
Amortization of acquired intangible assets	5,636	5.7	8,514	8.1

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

Restructuring charges	1,029	1.0	66	0.1
Acquisition related charges	667	0.7	1,660	1.6
Loss from operations	\$(795 )	(0.8 )%	\$(702 )	(0.7 )%

We adopted ASC 606, Revenue from Contracts with Customers, on December 31, 2017 using the modified retrospective method. We have not restated any prior financial statements presented. The significant impacts of the new standard were to accelerate the recognition of revenues and related costs on both sales to certain distributors and certain licensing activities. See "Note 2 - Revenue from Contracts with Customers" for further discussion of the impact of the adoption of ASC 606.

Table of Contents

## Revenue by End Market

The end market data below is derived from data provided to us by our distributors and end customers. With a diverse base of customers who may manufacture end products spanning multiple end markets, the assignment of revenue to a specific end market requires the use of estimates and judgment. Therefore, actual results may differ from those reported.

Under ASC 606, we recognize certain revenue for which end customers and end markets are not yet known. We assign this revenue first to a specific end market using historical and anticipated usage of the specific products, if possible, and allocate proportionally to the end markets if a specific end market cannot be identified.

Our Licensing and services end market includes revenue from the licensing of our IP, the collection of certain royalties, patent sales, the revenue related to our participation in consortia and standard-setting activities, and services. While Licensing products are primarily sold into the Mobile and Consumer market, Licensing and services revenue is reported as a separate end market as it has characteristics that differ from other categories, most notably its higher gross margin.

The following are examples of end market applications:

Communications and Computing	Mobile and Consumer	Industrial and Automotive	Licensing and Services
Wireless	Smartphones	Security and Surveillance	IP Royalties
Wireline	Cameras	Machine Vision	Adopter Fees
Data Backhaul	Displays	Industrial Automation	IP Licenses
Computing	Tablets	Human Computer Interaction	Patent Sales
Servers	Wearables	Automotive	Testing Services
Data Storage	Televisions and Home Theater	Drones	

The composition of our revenue by end market is presented in the following table:

(In thousands)	Three Months Ended			
	March 31, 2018		April 1, 2017	
Communications and Computing	\$28,139	28 %	\$30,010	29 %
Mobile and Consumer	26,706	27	31,799	30
Industrial and Automotive	40,264	41	30,860	30
Licensing and Services	3,514	4	11,918	11
Total revenue	\$98,623	100 %	\$104,587	100 %

Revenue from the Communications and Computing end market decreased by 6% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017, as additional purchases by a certain large customer in Asia in the prior year period did not recur in the current period. This was substantially offset by the ramp up of server platform revenues.

Revenue from the Mobile and Consumer end market decreased 16% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017. The decrease was predominately due to a significant decrease in volume for a major mobile handset provider. Sales of the end product have declined steadily from the first quarter of fiscal 2017 through the first quarter of fiscal 2018. This decrease was coupled with declines in revenue from HDMI devices used in Digital Television ("DTV") and Home Theater related products. These declines were partially offset by a resurgence of MHL-related products used in mobile handsets, and by an increase in smart speaker demand volume.

Revenue from the Industrial and Automotive end market increased approximately 30% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 due to strong growth in demand for both robotics and video wall content, and to increases from a broad range of customers in this market.

Revenue from the Licensing and Services end market decreased 71% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017. This decrease was predominantly due to revenue from a patent sale in the first quarter of fiscal 2017 that did not recur in the current period, and by the absence of revenue from Simplay Labs testing activities after the sale of that business unit at the end of the third quarter of fiscal 2017. These decreases are partially offset by HDMI royalties that we recognized as revenue in the first quarter of fiscal 2018 under ASC 606 but were not able to recognize in the first quarter of fiscal 2017 under the previous guidance.

Table of Contents

HDMI royalties are considered variable consideration under the new revenue standard and recognized as royalty revenue as usage occurs. While a new royalty sharing agreement is being negotiated with the other Founders of the HDMI consortium, we are estimating our share of royalty revenues under an anticipated new agreement. Before the HDMI royalty sharing agreement is signed, we estimate that we will recognize \$1 million to \$2 million of additional licensing and services revenue every quarter under ASC 606 that we would not have recognized under previous guidance. Once the HDMI royalty sharing agreement is signed, ongoing fiscal 2018 HDMI royalty revenue recognition under both ASC 606 and previous guidance will be in sync. Under ASC 606, we have already recognized an estimated \$6.6 million of previously unrecognized HDMI royalty revenues for fiscal 2017 as a cumulative effect adjustment through a reduction to Accumulated deficit on December 31, 2017 and will not recognize these as fiscal 2018 revenues upon agreement signing as we would have under previous guidance. Even though our fiscal 2018 revenues will not increase with the signing of the agreement, we expect to receive additional cash in 2018 related to these 2017 revenues.

Adoption of ASC 606 increased our revenues for the three months ended March 31, 2018 by \$9.5 million. Of this amount, \$8.3 million was due to the acceleration of revenue recognition on sales to certain distributors, with \$1.5 million attributed to Communications and Computing, \$4.8 million attributed to Mobile and Consumer, and \$2.0 million attributed to Industrial and Automotive. An additional \$1.2 million was due to the acceleration of revenue recognition on certain licensing activities and is attributed to Licensing and Services.

## Revenue by Geography

We assign revenue to geographies based on ship-to location of the end customer, where available, and based upon the location of the distributor to which the product was shipped otherwise.

The composition of our revenue by geography is presented in the following table:

(In thousands)	Three Months Ended			
	March 31, 2018		April 1, 2017	
Asia	\$71,921	73 %	\$73,458	70 %
Europe	12,142	12	11,080	11
Americas	14,560	15	20,049	19
Total revenue	\$98,623	100%	\$104,587	100%

Revenue in Asia decreased 2% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017. Asia revenue is heavily affected by revenue from both the Mobile and Consumer and the Communications and Computing end markets. The decrease was predominately due to a significant decrease in volume for a major mobile handset provider. Sales of the end product have declined steadily from the first quarter of fiscal 2017 through the first quarter of fiscal 2018. For the first quarter of fiscal 2018 relative to the first quarter of fiscal 2017, the Mobile and Consumer end market also saw decreased revenue from DTV, Home Theater, and related devices throughout Asia and by handset content revenues in China and Taiwan. In the Communications and Computing end market, Asia revenue decreased due to reductions from our largest telecommunications customer in the region.

Effective April 17, 2018, we are restricted from selling to ZTE Kangzun Telecom Co. Ltd. (“ZTE”) due to sanctions imposed by the United States Department of Commerce. In the past we sold products to ZTE and had anticipated doing so throughout fiscal 2018. We believe that this will not have a material effect on either our total revenue or our revenue in Asia, as revenue from ZTE accounted for less than 3% of our total revenue in the first quarter of fiscal 2018.

Revenue in Europe increased 10% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 as the region is showing renewed growth in the broad market, especially in the Industrial end market.

Revenue from the Americas decreased 27% for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 due to a patent sale that occurred in the first quarter of fiscal 2017 but did not recur in the first quarter of fiscal 2018. This was partially offset by other royalty revenue and broad market growth in the region.

Adoption of ASC 606 increased our revenues for the three months ended March 31, 2018 by \$9.5 million. Of this amount, \$8.3 million was due to the acceleration of revenue recognition on sales to certain distributors with \$7.7 million attributed to Asia, a \$0.4 million decrease attributed to Europe, and \$1.0 million attributed to the Americas. An additional \$1.2 million was due to the acceleration of revenue recognition on certain licensing activities and is attributed to the Americas.



Table of Contents

## Revenue from End Customers

Our top five end customers constituted approximately 16% of our revenue for the first quarter of fiscal 2018, compared to approximately 37% for the first quarter of fiscal 2017.

Our largest end customer accounted for approximately 4% of total revenue in the first quarter of fiscal 2018. Our largest end customer accounted for approximately 12% of total revenue in the first quarter of fiscal 2017. No other customers accounted for more than 10% of total revenue during these periods.

Under ASC 606, we did not have enough information to assign end customers to approximately \$8.3 million of revenue recognized for the three months ended March 31, 2018 on shipments to distributors that have not sold through to end customers.

## Revenue from Distributors

Distributors have historically accounted for a significant portion of our total revenue. Revenue attributable to our primary distributors is presented in the following table:

	% of Total Revenue Three Months Ended	
	March 31, 2018	April 1, 2017
Arrow Electronics Inc.	30%	21%
Weikeng Group	26	27
All others	31	23
All distributors *	87%	71%

\* During the first quarter of 2018, we updated our channel categories to group all forms of distribution into a single channel. Prior periods have been reclassified to match current period presentation.

Revenue attributable to revenue streams other than distributors decreased in the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017, resulting in increases in distribution revenue as a percentage of total revenue.

The most significant impact of the adoption of ASC 606 was to accelerate the timing of revenue recognition on product shipments to most of our distributors, resulting in an additional \$8.3 million of revenue in the three months ended March 31, 2018. Assuming all other revenue recognition criteria have been met, the new guidance requires us to recognize revenue and costs relating to such sales upon shipment to the distributor - subject to reductions for estimated reserves for price adjustments and returns - rather than upon the ultimate sale by the distributor to its end customer, as was our previous practice. The impact of this change will depend primarily on the level of inventory held by distributors at the beginning and end of each period. To the extent these inventory levels fluctuate significantly, revenue under the new standard could be materially different than that under the previous standard. We anticipate the adoption of the new standard to increase revenue recognized from distributors in the \$5 million to \$10 million range in 2018 compared to revenue recognized from distributors under the previous standard in 2017.

## Gross Margin

The composition of our gross margin, including as a percentage of revenue, is presented in the following table:  
Three Months Ended

(In thousands)	March 31, April 1,	
	2018	2017
Gross margin	\$56,521	\$60,832
Percentage of net revenue	57.3	% 58.2
Product gross margin %	55.7	% 55.1
Licensing and services gross margin %	100.0	% 82.0

For the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017, gross margin decreased by 0.9 percentage points. This decline was primarily due to lower high-margin IP and License revenue in the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017. Licensing and services accounted for approximately 4% of total revenue in the first quarter of fiscal 2018 compared to approximately 11% in the first quarter of fiscal 2017.

The primary contributor to the 0.6 percentage point increase in product gross margin in the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 was a change in overall sales mix, with decreased revenue from the lower margin consumer end market. The adoption of ASC 606 did not significantly change the product gross margin percentage.

Table of Contents

The primary contributor to the 18.0 percentage point increase in licensing and services gross margin in the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 was the \$10.0 million recognized as revenue in the first quarter of fiscal 2017 on receipt of the first installment from a patent sale in that period. The costs associated with the patent sale, primarily the net book value of the patents acquired in our acquisition of Silicon Image, were greater than usual for this category and had a substantial impact on licensing and services gross margin. The adoption of ASC 606 is not expected to have any impact on the cost and gross margin percentage of licensing and services.

Because of its higher margin, the licensing and services portion of our overall revenue can have a disproportionate impact on gross margin and profitability. For programmable and standard products, we expect that product, end market, and customer mix will subject our gross margin to fluctuation, while we expect downward pressure on average selling price to adversely affect our gross margin in the future. If we are unable to realize additional or sufficient product cost reductions in the future to balance changes in product and customer mix, we may experience degradation in our product gross margin.

## Operating Expenses

## Research and Development Expense

The composition of our Research and development expense, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		
	March 31, 2018	April 1, 2017	% change
Research and development	\$22,941	\$27,389	(16)
Percentage of revenue	23.3	% 26.2	%
Mask costs included in Research and development	\$486	\$163	+100

Research and development expense includes costs for compensation and benefits, stock compensation, development masks, engineering wafers, depreciation, licenses, and outside engineering services. These expenditures are for the design of new products, IP cores, processes, packaging, and software to support new products.

The decrease in Research and development expense for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 is due mainly to the cost reductions realized from restructuring actions and from the sales of assets and business units. These savings were predominantly from headcount related expenses, including lower bonus and stock compensation expense, and from reductions in time-based licenses.

We believe that a continued commitment to Research and development is essential to maintaining product leadership and providing innovative new product offerings and, therefore, we expect to continue to make significant future investments in Research and development.

## Selling, General, and Administrative Expense

The composition of our Selling, general, and administrative expense, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		
	March 31, 2018	April 1, 2017	% change
Selling, general, and administrative	\$27,043	\$23,905	13

Percentage of revenue                      27.4    %   22.9    %

Selling, general, and administrative expense includes costs for compensation and benefits related to selling, general, and administrative employees, commissions, depreciation, professional and outside services, trade show, and travel expenses.

The increase in Selling, general, and administrative expense for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 is due mainly to approximately \$2.7 million in one-time costs resulting from our CEO retirement and transition, including accelerated stock compensation, severance expense, and CEO search fees. The remaining increase is due to costs associated with adding new members to our Board of Directors and to higher legal costs.

Table of Contents

## Amortization of Acquired Intangible Assets

The composition of our Amortization of acquired intangible assets, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		
	March 31, 2018	April 1, 2017	% change
Amortization of acquired intangible assets	\$ 5,636	\$ 8,514	(34)
Percentage of revenue	5.7	% 8.1	%

For the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017, Amortization of acquired intangible assets decreased approximately \$ 2.9 million, primarily due to the reduction of certain intangibles as a result of patent sales and impairment charges.

## Restructuring Charges

The composition of our Restructuring charges, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		
	March 31, 2018	April 1, 2017	% change
Restructuring charges	\$ 1,029	\$ 66	+100
Percentage of revenue	1.0	% 0.1	%

Restructuring charges include expenses resulting from reductions in our worldwide workforce, consolidation of our facilities, and cancellation of software contracts and engineering tools.

In March 2015, our Board of Directors approved an internal restructuring plan (the "March 2015 Plan"), in connection with our acquisition of Silicon Image. The March 2015 Plan was designed to realize synergies from the acquisition by eliminating redundancies created as a result of combining the two companies. This included reductions in our worldwide workforce, consolidation of facilities, and cancellation of software contracts and engineering tools. The March 2015 Plan is substantially complete subject to certain remaining expected costs that we do not expect to be material and any changes in sublease assumptions should they occur, which we will expense as incurred. Under this plan, no expense and approximately \$0.3 million of expense was incurred during the three months ended March 31, 2018 and April 1, 2017, respectively. Approximately \$20.5 million of total expense has been incurred through March 31, 2018 under the March 2015 Plan, and we believe this amount approximates the total costs under the plan.

In September 2015, we implemented a further reduction of our worldwide workforce (the "September 2015 Reduction") separate from the March 2015 Plan. The September 2015 Reduction was designed to resize the company in line with the market environment and to better balance our workforce with the long-term strategic needs of our business. The September 2015 Reduction is substantially complete subject to certain remaining expected costs that we do not expect to be material, which we will expense as incurred. Under this reduction, no expense and approximately \$0.2 million of credit was incurred during the three months ended March 31, 2018 and April 1, 2017, respectively. Approximately \$7.2 million of total expense has been incurred through March 31, 2018 under the September 2015 Reduction, and we believe this amount approximates the total costs under the plan.

In June 2017, our Board of Directors approved an additional internal restructuring plan (the "June 2017 Plan"), which included the sale of 100% of the equity of our Hyderabad, India subsidiary and certain assets related to our Simplay

Labs testing and certification business, a worldwide workforce reduction, and an initiative to reduce our infrastructure costs. These actions are part of an overall plan to achieve financial targets and to enhance our financial and competitive position by better aligning our revenue and operating expenses. Under this plan, approximately \$1.0 million of expense was incurred during the three months ended March 31, 2018. Approximately \$9.0 million of total expense has been incurred through March 31, 2018 under the June 2017 Plan, and we expect the total cost to be approximately \$8.0 million to \$12.0 million and to be substantially completed by the end of the fourth quarter of fiscal 2018.

The \$1.0 million increase in restructuring expense in the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 is driven by significant headcount-related, lease and systems restructuring charges in the current year related to the June 2017 Plan versus substantially smaller charges in the previous year under the March 2015 Plan and September 2015 Reduction.

Table of Contents

## Acquisition Related Charges

The composition of our Acquisition related charges, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		% change
	March 31, 2018	April 1, 2017	
Acquisition related charges	\$667	\$1,660	(60)
Percentage of revenue	0.7 %	1.6 %	

Acquisition related charges include legal and professional fees directly related to acquisitions. For both the first quarter of fiscal 2018 and 2017, Acquisition related charges were entirely attributable to legal fees and outside services in connection with our proposed acquisition by Canyon Bridge Acquisition Company, Inc. Although the acquisition was terminated, certain residual legal charges directly related to this transaction are still being processed.

## Interest Expense

Interest expense, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		% change
	March 31, 2018	April 1, 2017	
Interest expense	\$(5,114)	\$(5,568)	(8)
Percentage of revenue	(5.2 %)	(5.3 %)	

The decrease in Interest expense for the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017 was largely driven by the reduction in the principal balance of our long-term debt as a result of the additional principal payments made in the first six months of fiscal 2017.

## Other income (expense), net

The composition of our Other income (expense), net, including as a percentage of revenue, is presented in the following table:

(In thousands)	Three Months Ended		% change
	March 31, 2018	April 1, 2017	
Other income (expense), net	\$554	\$(487)	(+100)
Percentage of revenue	0.6 %	(0.5 %)	

For the first quarter of fiscal 2018 compared to the first quarter of fiscal 2017, the change in Other income (expense), net is primarily driven by foreign exchange gains in the current quarter versus foreign exchange losses in the first quarter of fiscal 2017. Additionally, there was a \$0.3 million impairment adjustment to a cost-method investment in the first quarter of fiscal 2017 that did not recur in the current quarter.

## Income Taxes

The composition of our Income tax expense is presented in the following table:

	Three Months		
	Ended		
(In thousands)	March 2018	April 1, 2017	% change
Income tax expense	\$597	\$ 518	15

Our Income tax expense for the first quarters of fiscal 2018 and fiscal 2017 is composed primarily of foreign income and withholding taxes, partially offset by benefits resulting from the release of uncertain tax positions due to statute of limitation expirations that occurred in the respective periods.

We are not currently paying U.S. federal income taxes and do not expect to pay such taxes until we fully utilize our tax net operating loss and credit carryforwards. We expect to pay a nominal amount of state income tax. We are paying foreign income taxes, which are primarily related to withholding taxes on income from foreign royalties, and related to foreign sales and to the cost of operating offshore research and development, marketing, and sales subsidiaries. We accrue interest and penalties related to uncertain tax positions in income tax expense on our Consolidated Statements of Operations.



Table of Contents

The inherent uncertainties related to the geographical distribution and relative level of profitability among various high and low tax jurisdictions make it difficult to estimate the impact of the global tax structure on our future effective tax rate.

## Liquidity and Capital Resources

The following sections discuss material changes in our financial condition from the end of fiscal 2017, including the effects of changes in our Consolidated Balance Sheets and the effects of our credit arrangements and contractual obligations on our liquidity and capital resources, as well as our non-GAAP measures.

We classify our marketable securities as short-term based on their nature and availability for use in current operations. Our cash equivalents and short-term marketable securities consist primarily of high quality, investment-grade securities.

We have historically financed our operating and capital resource requirements through cash flows from operations. Cash provided by or used in operating activities will fluctuate from period to period due to fluctuations in operating results, the timing and collection of accounts receivable, and required inventory levels, among other things.

We believe that our financial resources will be sufficient to meet our working capital needs through at least the next 12 months. As of March 31, 2018, we did not have significant long-term commitments for capital expenditures. In the future, and to the extent our Credit Agreement permits, we may continue to consider acquisition opportunities to further extend our product or technology portfolios and further expand our product offerings. In connection with funding capital expenditures, completing other acquisitions, securing additional wafer supply, or increasing our working capital, we may seek to obtain equity or additional debt financing, or advance purchase payments or similar arrangements with wafer manufacturers. We may also need to obtain equity or additional debt financing if we experience downturns or cyclical fluctuations in our business that are more severe or longer than we anticipated when determining our current working capital needs, which financing may now be more difficult to obtain in light of our indebtedness related to the Credit Agreement.

## Cash, cash equivalents, and short-term marketable securities

(In thousands)	March 31, December 30, \$		
	2018	2017	Change
Cash and cash equivalents	\$99,392	\$ 106,815	\$(7,423)
Short-term marketable securities	12,078	4,982	7,096
Total Cash and cash equivalents and Short-term marketable securities	\$111,470	\$ 111,797	\$(327 )

As of March 31, 2018, we had total Cash, cash equivalents, and short-term marketable securities of \$111.5 million, of which approximately \$95.4 million in Cash and cash equivalents was held by our foreign subsidiaries. We manage our global cash requirements considering (i) available funds among the subsidiaries through which we conduct business, (ii) the geographic location of our liquidity needs, and (iii) the cost to access international cash balances. The repatriation of non-U.S. earnings may have adverse tax consequences as we may be required to pay and record income tax expense on those funds to the extent they were previously considered permanently reinvested. As of March 31, 2018, we could access all cash held by our foreign subsidiaries without incurring significant additional expense.

The net decrease in Cash, cash equivalents, and short-term marketable securities of \$0.3 million between December 30, 2017 and March 31, 2018 was primarily driven by \$0.9 million cash used in the repayment of debt and \$3.6 million of cash used in capital expenditures and payment for software licenses, partially offset by \$2.5 million in cash provided by operations, and \$1.1 million net cash provided by the issuance of common stock and vesting of

RSUs.

Accounts receivable, net

(In thousands)	March 31, 2018	December 30, 2017	Change
Accounts receivable, net	\$ 65,779	\$ 55,104	\$ 10,675
Days sales outstanding - Overall	61	53	8
Days sales outstanding - Product	62	53	9
Days sales outstanding - Licensing and services	22	29	(7 )

Accounts receivable, net as of March 31, 2018 increased by \$10.7 million, or 19%, compared to December 30, 2017. A majority of the increase resulted from a \$25 million increase in distributor inventory and billings to support the near-term demand from increasing server deployments and consumer applications, partially offset by \$15.6 million in additional ship and debit and return accruals recorded in this quarter due to adoption of ASC 606 that were not recorded last quarter.

31

Table of Contents

The increase in overall days sales outstanding of 8 days to 61 days at March 31, 2018 from 53 days at December 30, 2017 is mainly due to the increase in product days sales outstanding. Days sales outstanding related to product revenue was 62 days, an increase of 9 days from 53 days at December 30, 2017, primarily due to the changes in distributor accounts receivable as a result of increased distributor inventory and adoption of ASC 606 discussed above.

## Inventories

(In thousands)	March 31, 2018	December 30, 2017	Change
Inventories	\$ 77,917	\$ 79,903	\$(1,986)
Months of inventory on hand	5.6	5.4	0.2

Inventories as of March 31, 2018 decreased \$2.0 million, or 2%, compared to December 30, 2017, primarily due the ramp down of mature and aging products, partially offset by a ramp up to support forecasted sales for new product demand.

The months of inventory on hand ratio compares the inventory balance at the end of a quarter to the cost of sales in that quarter. Our months of inventory on hand increased to 5.6 months at March 31, 2018 from 5.4 months at December 30, 2017. Major factors resulting in the increase were decreased cost of sales between the periods while sales-driven inventory decreases were offset by increased inventory supporting forecasted sales and new product demand.

## Credit Arrangements

On March 10, 2015, we entered into a secured credit agreement (the "Credit Agreement") with Jefferies Finance, LLC and certain other lenders for purposes of funding, in part, our acquisition of Silicon Image. The Credit Agreement provided for a \$350 million term loan (the "Term Loan") maturing on March 10, 2021 (the "Term Loan Maturity Date"). We received \$346.5 million, net of an original issue discount of \$3.5 million and we paid debt issuance costs of \$8.3 million. The Term Loan bears variable interest equal to the one-month LIBOR, subject to a 1.00% floor, plus a spread of 4.25%. The current effective interest rate on the Term Loan is 6.59%.

The Term Loan is payable through a combination of (i) quarterly installments of approximately \$0.9 million, (ii) annual excess cash flow payments as defined in the Credit Agreement, which are due 95 days after the last day of our fiscal year, and (iii) any payments due upon certain issuances of additional indebtedness and certain asset dispositions, with any remaining outstanding principal amount due and payable on the Term Loan Maturity Date. The percentage of excess cash flow we are required to pay ranges from 0% to 75%, depending on our leverage and other factors as defined in the Credit Agreement. Currently, the Credit Agreement would require a 75% excess cash flow payment.

In the first quarter of fiscal 2018, we made a required quarterly installment payment of \$0.9 million. Over the next twelve months, our principal payments will be comprised mainly of regular quarterly installments and a required annual excess cash flow payment.

While the Credit Agreement does not contain financial covenants, it does contain informational covenants and certain restrictive covenants, including limitations on liens, mergers and consolidations, sales of assets, payment of dividends, and indebtedness. We were in compliance with all such covenants in all material respects at March 31, 2018.

As of March 31, 2018, we had no significant long-term purchase commitments for capital expenditures or existing used or unused credit arrangements.

#### Contractual Cash Obligations

There have been no material changes to our contractual obligations outside of the ordinary course of business in the first three months of fiscal 2018, as summarized in Management's Discussion and Analysis of Financial Condition and Results of Operations in the Company's Annual Report on Form 10-K for the year ended December 30, 2017.

#### Off-Balance Sheet Arrangements

As of March 31, 2018, we did not have any off-balance sheet arrangements required to be disclosed by Item 303(a)(4) of SEC Regulation S-K.

Table of Contents

## Non-GAAP Financial Measures

To supplement our consolidated financial results presented in accordance with U.S. Generally Accepted Accounting Principles ("GAAP"), we also present non-GAAP financial measures which are adjusted from the most directly comparable U.S. GAAP financial measures. The non-GAAP measures set forth below exclude charges and adjustments primarily related to stock-based compensation, restructuring charges, acquisition-related charges, amortization of acquired intangible assets, and the estimated tax effect of these items. These charges and adjustments may be recurring in nature but are a result of periodic or non-core operating activities of the Company.

Management believes that these non-GAAP financial measures provide an additional and useful way of viewing aspects of our performance that, when viewed in conjunction with our U.S. GAAP results, provide a more comprehensive understanding of the various factors and trends affecting our ongoing financial performance and operating results than GAAP measures alone. Management also uses these non-GAAP measures for strategic and business decision-making, internal budgeting, forecasting, and resource allocation processes and believes that investors should have access to similar data when making their investment decisions. In addition, these non-GAAP financial measures facilitate management's internal comparisons to our historical operating results and comparisons to competitors' operating results.

These non-GAAP measures are included solely for informational and comparative purposes and are not meant as a substitute for GAAP and should be considered together with the consolidated financial information located in this report. Pursuant to the requirements of Regulation S-K and to make clear to our investors the adjustments we make to U.S. GAAP measures, we have provided the following reconciliations of the non-GAAP measures to the most directly comparable U.S. GAAP financial measures.

## Reconciliation of U.S. GAAP to Non-GAAP Financial Measures

(In thousands, except per share data)	Three Months Ended		
(unaudited)	March 31, 2018	April 1, 2017	
<b>Gross Margin Reconciliation</b>			
GAAP Gross margin	\$56,521	\$60,832	
Stock-based compensation expense - gross margin	237	228	
Non-GAAP Gross margin	\$56,758	\$61,060	
<b>Gross Margin % Reconciliation</b>			
GAAP Gross margin %	57.3	% 58.2	%
Cumulative effect of non-GAAP Gross Margin adjustments	0.3	% 0.2	%
Non-GAAP Gross margin %	57.6	% 58.4	%
<b>Operating Expenses Reconciliation</b>			
GAAP Operating expenses	\$57,316	\$61,534	
Amortization of acquired intangible assets	(5,636 )	(8,514 )	
Restructuring charges	(1,029 )	(66 )	
Acquisition related charges (1)	(667 )	(1,660 )	
Stock-based compensation expense - operations	(4,563 )	(3,615 )	
Non-GAAP Operating expenses	\$45,421	\$47,679	
<b>Income (Loss) from Operations Reconciliation</b>			
GAAP Loss from operations	\$(795 )	\$(702 )	

Edgar Filing: LATTICE SEMICONDUCTOR CORP - Form 10-Q

Stock-based compensation expense - gross margin	237	228
Amortization of acquired intangible assets	5,636	8,514
Restructuring charges	1,029	66
Acquisition related charges (1)	667	1,660
Stock-based compensation expense - operations	4,563	3,615
Non-GAAP Income from operations	\$11,337	\$13,381

(1) Legal fees and outside services that were related to our proposed acquisition by Canyon Bridge Acquisition Company, Inc.

Table of Contents

## Reconciliation of U.S. GAAP to Non-GAAP Financial Measures

(In thousands, except per share data) (unaudited)	Three Months Ended	
	March 31, 2018	April 1, 2017
<b>Income (Loss) from Operations % Reconciliation</b>		
GAAP Loss from operations %	(0.8 )%	(0.7 )%
Cumulative effect of non-GAAP Gross Margin and Operating adjustments	12.3 %	13.5 %
Non-GAAP Income from operations %	11.5 %	12.8 %
<b>Income Tax Expense Reconciliation</b>		
GAAP Income tax expense	\$597	\$518
Estimated tax effect of non-GAAP Adjustments (2)	62	(303 )
Non-GAAP Income tax expense	\$659	\$215
<b>Net Income (Loss) Reconciliation</b>		
GAAP Net loss	\$(5,952)	\$(7,275)
Stock-based compensation expense - gross margin	237	228
Amortization of acquired intangible assets	5,636	8,514
Restructuring charges	1,029	66
Acquisition related charges (1)	667	1,660
Stock-based compensation expense - operations	4,563	3,615
Estimated tax effect of non-GAAP Adjustments (2)	(62 )	303
Non-GAAP Net income	\$6,118	\$7,111
<b>Net Income (Loss) Per Share Reconciliation</b>		
GAAP Net loss per share - basic and diluted	\$(0.05 )	\$(0.06 )
Cumulative effect of Non-GAAP adjustments	0.10	0.12
Non-GAAP Net income per share - basic and diluted	\$0.05	\$0.06
<b>Shares used in per share calculations:</b>		
Basic	124,076	121,800
Diluted - GAAP	124,076	121,800
Diluted - non-GAAP (3)	125,144	124,343

(1) Legal fees and outside services that were related to our proposed acquisition by Canyon Bridge Acquisition Company, Inc.

(2) We calculate non-GAAP tax expense by applying our tax provision model to year-to-date and projected income after adjusting for non-GAAP items. The difference between calculated values for GAAP and non-GAAP tax expense has been included as the “Estimated tax effect of non-GAAP adjustments.”

(3) Diluted shares are calculated using the GAAP treasury stock method. In a loss position, diluted shares equal basic shares.



Table of Contents

## ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

## Foreign Currency Exchange Rate Risk

We collect an annual Japanese consumption tax refund in yen, and as a result of having various international subsidiary and branch operations, our financial position and results of operations are subject to foreign currency exchange rate risk.

We mitigate the resulting foreign currency exchange rate exposure by entering into foreign currency forward exchange contracts, details of which are presented in the following table:

	March 31, December 30,	
	2018	2017
Total cost of contracts for Japanese yen (in thousands)	\$ 3,194	\$ 2,204
Number of contracts	3	2
Settlement month	June 2018	June 2018

Although these hedges mitigate our foreign currency exchange rate exposure from an economic perspective, they were not designated as "effective" hedges under U.S. GAAP and as such are adjusted to fair value through Other income (expense), net. We do not engage in speculative trading in any financial or capital market.

The net fair value of these contracts was unfavorable by less than \$0.1 million at March 31, 2018 and favorable by approximately \$0.1 million at December 30, 2017. A hypothetical 10% unfavorable exchange rate change in the yen against the U.S. dollar would have resulted in an unfavorable change in net fair value of approximately \$0.2 million at March 31, 2018 and approximately \$0.2 million at December 30, 2017. Changes in fair value resulting from foreign exchange rate fluctuations would be substantially offset by the change in value of the underlying hedged transactions.

## Interest Rate Risk

At March 31, 2018, we had \$305.9 million outstanding on the original \$350 million term loan outstanding under our Credit Agreement, with a variable contractual interest rate based on the one-month LIBOR as of March 31, 2018, subject to a 1.00% floor, plus a spread of 4.25%. A hypothetical increase in the one-month LIBOR by 1% (100 basis points) would increase our Interest expense by approximately \$0.8 million per quarter during fiscal 2018.

## ITEM 4. CONTROLS AND PROCEDURES

## Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), has evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this report.

Based on their evaluation, our CEO and CFO concluded that our disclosure controls and procedures were not effective based on the material weakness in our internal control over financial reporting described in detail in "Management's Report on Internal Control over Financial Reporting" in Part II, Item 9A of our Annual Report on Form 10-K for the year ended December 30, 2017 and summarized below. Notwithstanding such material weakness in internal control over financial reporting, our management concluded that the consolidated financial statements in this quarterly report on Form 10-Q present fairly, in all material respects, our financial position, results of operations and cash flows as of the dates, and for the periods presented, in conformity with U.S. generally accepted accounting principles ("U.S.

GAAP”).

During fiscal 2017, we did not conduct an effective risk assessment over significant unusual transactions and as a result, did not design and implement control activities over the accounting for those significant unusual transactions. These deficiencies could impact any of the amounts reported in our financial statements. The control deficiencies resulted in certain immaterial misstatements, which were corrected in the consolidated financial statements as of and for the year ended December 30, 2017 prior to issuance as well as other immaterial misstatements that were not corrected. Because the control deficiencies create a reasonable possibility that a material misstatement in the annual or interim consolidated financial statements will not be prevented or detected on a timely basis, they represent a material weakness and, accordingly, management concluded its internal control over financial reporting was ineffective as of December 30, 2017. Because we did not fully implement the remedial steps described in Item 9A of our Annual Report on Form 10-K for the year ended December 30, 2017, we consider our disclosure control not effective as of the end of our fiscal quarter.

35

---

## Table of Contents

### Changes in Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding reliability of financial reporting and the preparation and fair presentation of published financial statements for external purposes in accordance with U.S. GAAP.

As stated above, we disclosed a material weakness in internal control over financial reporting as a result of not conducting an effective risk assessment over significant unusual transactions and as a result, not designing and implementing control activities over the accounting for those significant unusual transactions. Management has begun to take specific actions to address these issues. These actions, currently started or underway, include:

- Timely reviews with the Controller and/or CFO regarding technical accounting conclusions for events;
- Routine Disclosure Committee meetings to highlight and identify unique or non-recurring transactions;
- Expanded and augmented the members of the Disclosure Committee to include representatives from the Executive Leadership Team; and
- Continue the risk assessment reviews, as warranted, with the Audit Committee

These improvements are targeted at strengthening our internal control over financial reporting and remediating the material weakness disclosed above. We remain committed to an effective internal control environment and management believes that these actions, and the improvements management expects to achieve as a result, will remediate the material weakness. However, the process of improvement and remediation is ongoing as of March 31, 2018, and the material weaknesses in our internal control over financial reporting will not be considered remediated until the controls operate for a sufficient period of time and management has concluded, through testing, that these controls operate effectively.

In addition to the material weakness remediation plan described above, we have added key control procedures for the implementation of ASC 606, Revenue from Contracts with Customers. Other than these items, there were no changes in our internal controls over financial reporting (as defined in Rules 13a - 15(f) and 15(d) - 15(f) under the Exchange Act) that occurred during the first quarter of fiscal 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

---

### ITEM 1. LEGAL PROCEEDINGS

The information set forth above under "Note 15 - Contingencies" contained in the Notes to Consolidated Financial Statements is incorporated herein by reference.

### ITEM 1A. Risk Factors

The following risk factors and other information included in this Report include any material changes to and supersede the description of the risk factors associated with our business previously disclosed in our Annual Report on Form 10-K for the year ended December 30, 2017 and should be carefully considered before making an investment

decision relating to our common stock. If any of the risks described below occur, our business, financial condition, operating results, and cash flows could be materially adversely affected. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations and financial results.

Table of Contents

We rely on a limited number of independent suppliers for the manufacture of all of our products and a failure by our suppliers to provide timely, cost-effective, and quality products could adversely affect our operations and financial results.

We depend on independent foundries to supply silicon wafers for our products. These foundries include Fujitsu in Japan and United Microelectronics Corporation in Taiwan, which supply the majority of our programmable logic wafers, and Taiwan Semiconductor Manufacturing, which supplies most of our HDMI and MHL integrated circuits. We negotiate wafer volumes, prices, and other terms with our foundry partners and their respective affiliates on a periodic basis typically resulting in short-term agreements which do not ensure long-term supply or allocation commitments. We rely on our foundry partners to produce wafers with competitive performance attributes. If the foundries that supply our wafers experience manufacturing problems, including unacceptable yields, delays in the realization of the requisite process technologies, or difficulties due to limitations of new and existing process technologies, our operating results could be adversely affected.

If for any reason the foundries are unable to, or do not manufacture sufficient quantities of our products or continue to manufacture a product for the full life of the product, we may be required to prematurely limit or discontinue the sales of certain products or incur significant costs to transfer products to other foundries, and our customer relationships and operating results could be adversely affected. In addition, weak economic conditions may adversely impact the financial health and viability of the foundries and cause them to limit or discontinue their business operations, resulting in shortages of supply and an inability to meet their commitments to us, which could adversely affect our financial condition and operating results.

A disruption of one or more of our foundry partners' operations as a result of a fire, earthquake, act of terrorism, political or labor unrest, governmental uncertainty, war, disease, or other natural disaster or catastrophic event, or any other reason, could disrupt our wafer supply and could adversely affect our operating results.

Establishing, maintaining and managing multiple foundry relationships requires the investment of management resources as well as additional costs. If we fail to maintain our foundry relationships, or elect or are required to change foundries, we will incur significant costs and manufacturing delays. The success of certain of our next generation products is dependent upon our ability to successfully partner with Fujitsu, Taiwan Semiconductor, Seiko Epson, and other foundry partners. If for any reason one or more of our foundry partners does not provide its facilities and support for our development efforts, we may be unable to effectively develop new products in a timely manner.

Should a change in foundry relationships be required, we may be unsuccessful in establishing new foundry relationships for our current or next generation products, or we may incur substantial cost or manufacturing delays until we form and ramp relationships and migrate products, all of which could adversely affect our operating results.

We depend on distributors to generate a significant portion of our revenue and complete order fulfillment and any adverse change in our relationship or our distributors' financial health, reduction of selling efforts, or inaccuracy in resale reports could harm our sales or result in misreporting our results.

We depend on our distributors to sell our products to end customers, complete order fulfillment, and maintain sufficient inventory of our products. Our distributors also provide technical support and other value-added services to our end customers. Revenue attributable to distributors accounted for 87% of our total revenue in the first three months of fiscal 2018, with two distributors accounting for 56% of our total revenue in the first three months of fiscal 2018.

We expect our distributors to generate a significant portion of our revenue in the future. Any adverse change to our relationships with our distributors or a failure by one or more of our distributors to perform its obligations to us could

have a material impact on our business. In addition, a significant reduction of effort by a distributor to sell our products or a material change in our relationship with one or more distributors may reduce our access to certain end customers and adversely affect our ability to sell our products.

The financial health of our distributors is important to our success. Economic conditions may adversely impact the financial health of one or more of our distributors. This could result in the inability of distributors to finance the purchase of our products or cause the distributors to delay payment of their obligation to us and increase our credit risk. If the financial health of our distributors impairs their performance and we are unable to secure alternate distributors, our financial condition and results of operations may be negatively impacted.

Since we have limited ability to forecast inventory levels of our end customers, it is possible that there may be significant build-up of inventories in the distributor channel, with the OEM or the OEM's contract manufacturer. Such a buildup could result in a slowdown in orders, requests for returns from customers, or requests to move out planned shipments. This could adversely affect our revenues and profits. Any failure to manage these challenges could disrupt or reduce sales of our products and unfavorably impact our financial results.

## Table of Contents

The most significant impact of our adoption of Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606) is to accelerate the timing of revenue recognition on product shipments to most of our distributors. Assuming all other revenue recognition criteria have been met, the new guidance requires us to recognize revenue and costs relating to such sales upon shipment to the distributor - subject to reductions for estimated reserves for price adjustments and returns - rather than upon the ultimate sale by the distributor to its end customer, as was our previous practice. The impact of this change will depend primarily on the level of inventory held by distributors at the beginning and end of each period. To the extent these inventory levels fluctuate significantly, including as a result of a distributor building inventory in advance of clear demand, revenue under the new standard could be materially different than that under the previous standard. We are still new to implementing the new standard, and it requires recognition of revenue based on significant estimates that may require material correction in a future period, depending on actual results.

We depend on the timeliness and accuracy of resale reports from our distributors. Late or inaccurate resale reports could have a detrimental effect on our ability to properly recognize revenue, especially under the new revenue standard, and on our ability to predict future sales.

Our success and future revenue depends on our ability to innovate, develop and introduce new products that achieve customer and market acceptance and to successfully compete in the highly competitive semiconductor industry, and failure to do so could have a material adverse effect on our financial condition and results of operations.

The semiconductor industry is highly competitive and many of our direct and indirect competitors have substantially greater financial, technological, manufacturing, marketing, and sales resources. Consolidation in our industry may increasingly mean that our competitors have greater resources, or other synergies, that could put us at a competitive disadvantage. We currently compete directly with companies that have licensed our technology or have developed similar products, as well as numerous semiconductor companies that offer products based on alternative solutions, such as applications processor, application specific standard product, microcontroller, analog, and digital signal processing technologies. Competition from these semiconductor companies may intensify as we offer more products in any of our end markets. These competitors include established, multinational semiconductor companies, as well as emerging companies.

The markets in which we compete are characterized by rapid technology and product evolution, generally followed by a relatively longer process of ramping up to volume production on advanced technologies. Our markets are also characterized by evolving industry standards, frequent new product introduction, short product life cycles, and increased demand for higher levels of integration and smaller process geometry. Our competitive position and success depends on our ability to innovate, develop, and introduce new products that compete effectively on the basis of price, density, functionality, power consumption, form factor, and performance addressing the evolving needs of the markets we serve. These new products typically are more technologically complex than their predecessors.

Our future growth and the success of new product introductions depend upon numerous factors, including:

- timely completion and introduction of new product designs;
- ability to generate new design opportunities and design wins, including those which result in sales of significant volume;
- availability of specialized field application engineering resources supporting demand creation and customer adoption of new products;
- ability to utilize advanced manufacturing process technologies;
- achieving acceptable yields and obtaining adequate production capacity from our wafer foundries and assembly and test subcontractors;
- ability to obtain advanced packaging;

- availability of supporting software design tools;
- utilization of predefined IP logic;
- market acceptance of our MHL-enabled and wireless mobile products, and our 60 GHz wireless products;
- customer acceptance of advanced features in our new products;
- availability of competing alternative technologies; and
- market acceptance of our customers' products.

Our product innovation and development efforts may not be successful; our new products, MHL-enabled products, and 60GHz wireless products may not achieve market or customer acceptance; and we may not achieve the necessary volume of production to achieve acceptable cost. Revenue relating to our mature products is expected to decline in the future, which is normal for our product life cycles. As a result, we may be increasingly dependent on revenue derived from our newer products as well as anticipated cost reductions in the manufacture of our current products. We rely on obtaining yield improvements and corresponding cost reductions in the manufacture of existing products and on introducing new products that incorporate advanced features and other price/performance factors that enable us to increase revenues while maintaining acceptable margins. To the extent such cost reductions and new product introductions do not occur in a timely manner, or that our products do not achieve market acceptance or market acceptance at acceptable pricing, our forecasts of future revenue, financial condition, and operating results could be materially adversely affected.



## Table of Contents

We depend on a concentrated group of customers for a significant portion of our revenues. If any of these customers reduce their use of our products, our revenue could decrease significantly.

A significant portion of our revenue depends on sales to a limited number of customers. In the first quarter of fiscal 2018, our largest end customer accounted for approximately 4% of our total revenue, and our top five end customers accounted for approximately 16% of our total revenue, including less than 3% from ZTE Kangzun Telecom Co. Ltd. (“ZTE”). In the past we sold products to ZTE and had anticipated doing so throughout fiscal 2018, but we are now restricted from selling to ZTE due to sanctions imposed by the United States Department of Commerce. If any others of these relationships were to diminish, if these customers were to develop their own solutions or adopt alternative solutions or competitors' solutions, or if our relationship with any future customer which accounts for a significant portion of our revenue were to diminish due to these or other factors, our results could be adversely affected.

While we strive to maintain strong relationships with our customers, their continued use of our products is frequently reevaluated, as certain of our customers' product life cycles are relatively short and they continually develop new products. The selection process for our products to be included in our customers' new products is highly competitive. There are no guarantees that our products will be included in the next generation of products introduced by these customers. For example, one of our largest customers from the second half of 2016 through the first half of 2017 was a major mobile handset provider. The production volume for this mobile handset peaked in the fourth quarter of fiscal 2016, and the associated revenue stream has declined in subsequent quarters as the end product completes its lifecycle. At this time, there is no guarantee that our products will be included in this provider's next generation handset, nor in any of its other devices. Any significant loss of, or a significant reduction in purchases by, one or more of these customers or their failure to meet their commitments to us, could have an adverse effect on our financial condition and results of operations. If any one or more of our concentrated groups of customers were to experience significantly adverse financial conditions, our financial condition and business could be adversely affected as well.

Our outstanding indebtedness could reduce our strategic flexibility and liquidity and may have other adverse effects on our results of operations.

In connection with our acquisition of Silicon Image, we entered into a secured Credit Agreement providing for a \$350 million term loan that matures on March 10, 2021. Our obligations under the Credit Agreement are guaranteed by our U.S. subsidiaries. Our obligations include a requirement to pay up to 75% of our excess cash flow toward repayment of the facility. The Credit Agreement also contains certain restrictive covenants, including limitations on liens, mergers and consolidations, sales of assets, payment of dividends, and additional indebtedness. The amount and terms of our indebtedness, as well as our credit rating, could have important consequences, including the following:

- we may be more vulnerable to economic downturns, less able to withstand competitive pressures, and less flexible in responding to changing business and economic conditions;
- our cash flow from operations may be allocated to the payment of outstanding indebtedness, and not to research and development, operations or business growth;
- we might not generate sufficient cash flow from operations or other sources to enable us to meet our payment obligations under the facility and to fund other liquidity needs;
- our ability to make distributions to our stockholders in a sale or liquidation may be limited until any balance on the facility is repaid in full; and
- our ability to incur additional debt, including for working capital, acquisitions, or other needs, is more limited.

If we breach a loan covenant, the lenders could accelerate the repayment of the term loan. We might not have sufficient assets to repay such indebtedness upon acceleration. If we are unable to repay the indebtedness, the lenders could initiate a bankruptcy proceeding against us or collection proceedings with respect to our assets and subsidiaries securing the facility, which could materially decrease the value of our common stock.

The intellectual property licensing component of our business strategy increases our business risk and fluctuation of our revenue.

Our business strategy includes licensing our intellectual property to companies that incorporate it into their respective technologies that address markets in which we do not directly participate or compete. We also license our intellectual property into markets where we do participate and compete. Our licensing and services revenue may be impacted by the introduction of new technologies by customers in place of the technologies based on our intellectual property, changes in the law that may weaken our ability to prevent the use of our patented technology by others, the expiration of our patents, and changes of selling prices for products using licensed patents. We cannot assure that our licensing customers will continue to license our technology on commercially favorable terms or at all, or that these customers will introduce and sell products incorporating our technology, accurately report royalties owed to us, pay agreed upon royalties, honor agreed upon market restrictions, or maintain the confidentiality of our proprietary information, or will not infringe upon or misappropriate our intellectual property. Our intellectual property licensing agreements are complex and depend upon many factors, including completion of milestones, allocation of values to delivered items and customer acceptances. Many of these require significant judgments. Additionally, this is a relatively new end market for us, with which we do not yet have extensive experience.

Table of Contents

We have also generated revenue from the sale of certain patents from our portfolio, generally for technology that we are no longer actively developing. While we plan to continue to monetize our patent portfolio through sales of non-core patents, we may not be able to realize adequate interest or prices for those patents. Accordingly, we cannot provide assurance that we will continue to generate revenue from these sales. In addition, although we seek to be strategic in our decisions to sell patents, we might incur reputational harm if a purchaser of our patents sues one of our customers for infringement of the purchased patent, and we might later decide to enter a space that requires the use of one or more of the patents we sold. In addition, as we sell groups of patents, we no longer have the opportunity to license those patents and receive a continuing royalty stream.

Our licensing and services revenue fluctuates, sometimes significantly, from period to period because it is heavily dependent on a few key transactions being completed in a given period, the timing of which is difficult to predict and may not match our expectations. Because of its high margin, the licensing and services revenue portion of our overall revenue can have a disproportionate impact on gross profit and profitability. Generating revenue from intellectual property licenses is a lengthy and complex process that may last beyond the period in which our efforts begin, and the accounting rules governing the recognition of revenue from intellectual property licensing transactions are increasingly complex and subject to interpretation. As a result, the amount of license revenue recognized in any period may differ significantly from our expectations.

The semiconductor industry routinely experiences cyclical market patterns and a significant industry downturn could adversely affect our operating results.

Our revenue and gross margin can fluctuate significantly due to downturns in the semiconductor industry. These downturns can be severe and prolonged and can result in price erosion and weak demand for our products. Weak demand for our products resulting from general economic conditions affecting the end markets we serve or the semiconductor industry specifically and reduced spending by our customers can result, and in the past has resulted, in excess and obsolete inventories and corresponding inventory write-downs. The dynamics of the markets in which we operate make prediction of and timely reaction to such events difficult. Due to these and other factors, our past results are not reliable predictors of our future results.

Our expense levels are based, in part, on our expectations of future sales. Many of our expenses, particularly those relating to facilities, capital equipment, and other overhead, are relatively fixed. We might be unable to reduce spending quickly enough to compensate for reductions in sales. Accordingly, shortfalls in sales could adversely affect our operating results.

General economic conditions and deterioration in the global business environment could have a material adverse effect on our business, operating results, and financial condition.

Adverse economic conditions or our customers' perceptions of the economic environment may negatively affect customer demand for our products and services and result in delayed or decreased spending. Weak global economic conditions in the past have resulted in weak demand for our products in certain geographies and had an adverse impact on our results of operations. If global economic conditions weaken, our business could be harmed due to customers or potential customers reducing or delaying orders. In addition, the inability of customers to obtain credit, the insolvency of one or more customers, or the insolvency of key suppliers could result in sales or production delays. Any of these effects could impact our ability to effectively manage inventory levels and collect receivables, require additional restructuring actions, and decrease our revenue and profitability. Uncertainty about future economic conditions makes it difficult for us to forecast operating results and to make decisions about future investments. Any or all of these factors could adversely affect our financial condition and results of operations in the future.

We may experience difficulties in transitioning to smaller geometry process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries, and increased expenses.

To remain competitive, we expect to continue to transition our semiconductor products to increasingly smaller geometries. This requires us to change the manufacturing processes for our products and to redesign some products as well as standard cells and other integrated circuit designs we may use in multiple products. We periodically evaluate the benefits, on a product-by-product basis, of migrating to smaller geometry process technologies to reduce our costs. The transition to lower nanometer geometry process technologies will result in significantly higher mask and prototyping costs, as well as additional expenditures for engineering design tools.

We depend on our relationships with our foundry partners to transition to smaller geometry processes successfully. We make no assurance that our foundry partners will be able to effectively manage the transition in a timely manner, or at all. If we or any of our foundry partners experience significant delays in this transition or fail to efficiently implement this transition, we could experience reduced manufacturing yields, delays in product deliveries, and increased expenses, all of which could adversely affect our relationships with our customers and our financial condition and operating results.

## Table of Contents

Foreign sales, accounting for the majority of our revenue, are subject to various risks associated with selling in international markets, which could have a material adverse effect on our operations, financial condition, and results of operations.

We derive the majority of our revenue from sales outside of the United States. Accordingly, if we experience a decline in foreign sales, our operating results could be adversely affected. Our foreign sales are subject to numerous risks, including:

- changes in local economic conditions;
- currency exchange rate volatility;
- governmental stimulus packages, controls, and trade restrictions;
- governmental policies that promote development and consumption of domestic products;
- export license requirements, foreign trade compliance matters, and restrictions on the use of technology;
- political instability, war, terrorism, or pandemic disease;
- changes in tax rates, tariffs, or freight rates;
- reduced protection for intellectual property rights;
- longer receivable collection periods;
- natural or man-made disasters in the countries where we sell our products;
- interruptions in transportation;
- interruptions in the global communication infrastructure; and
- labor regulations.

Any of these factors could adversely affect our financial condition and results of operations in the future. For instance, in the past we sold products to ZTE and had anticipated doing so throughout fiscal 2018. However, we are now restricted from selling to ZTE due to sanctions imposed by the United States Department of Commerce.

We have significant international operations exposing us to various economic, regulatory, political, and business risks, which could have a material adverse effect on our operations, financial condition, and results of operations.

We have significant international operations, including foreign sales offices to support our international customers and distributors, and operational and research and development sites in China, the Philippines, and other Asian locations. In addition, we purchase our wafers from foreign foundries; have our commercial products assembled, packaged, and tested by subcontractors located outside of the United States; and rely on an international service provider for inventory management, order fulfillment, and direct sales logistics.

These and other integral business activities outside of the United States are subject to the operational challenges, risks and uncertainties associated with conducting business in foreign economic and regulatory environments including trade barriers; economic sanctions; environmental regulations; import and export regulations; duties and tariffs and other trade restrictions; changes in trade policies; anti-corruption laws; domestic and foreign governmental regulations; potential vulnerability of and reduced protection for intellectual property; disruptions or delays in production or shipments; and instability or fluctuations in currency exchange rates, any of which could have a material adverse effect on our business, financial condition, and operating results.

If we fail to comply with the many laws and regulations to which we are subject, we may be subject to significant fines, penalties or liabilities for noncompliance, which could harm our business and financial results. For example, the European Union adopted the General Data Protection Regulation (“GDPR”) in 2016, which establishes new requirements regarding the handling of personal data and which becomes effective in May 2018. Although generally we are not in the business of collecting personal data, non-compliance with the GDPR could result in monetary penalties of up to the higher of 20 million Euros or 4% of worldwide revenue.

Moreover, our financial condition and results of operations could be affected in the event of political instability, including as a result of the United Kingdom referendum on June 23, 2016, in which voters approved an exit from the European Union (commonly referred to as "Brexit"), terrorist activity, U.S. or other military actions, or economic crises in countries where our main wafer suppliers, end customers, contract manufacturers, and logistics providers are located.

## Table of Contents

The Mobile and Consumer end market is rapidly changing and cyclical, and a downturn in this end market or our failure to accurately predict the frequency, duration, timing, and severity of these cycles could adversely affect our financial condition and results.

Revenue from the Mobile and Consumer end market accounted for 27% of our revenue in the first three months of fiscal 2018. Revenue from the Mobile and Consumer end market consists primarily of revenue from our products designed and used in a broad range of consumer electronics products including smartphones, tablets and e-readers, wearables, accessories such as chargers and docks, Ultra High-Definition TVs, Digital SLR cameras, drones, and other connected devices. This market is characterized by rapidly changing requirements and product features and volatility in consumer demand. Our success in this market will depend principally on our ability to:

- meet the market windows for consumer products;
- predict technology and market trends;
- develop IP cores to meet emerging market needs;
- develop products on a timely basis;
- maintain multiple design wins across different markets and customers to dampen the effects of market volatility;
- be designed into our customers' products; and
- avoid cancellations or delay of products.

Our inability to accomplish any of the foregoing, or to offset the volatility of this end market through diversification into other markets, could materially and adversely affect our business, financial condition, and results of operations. Cyclical in the Mobile and Consumer end market could periodically result in higher or lower levels of revenue and revenue concentration with a single or small number of customers. In addition, rapid changes in this market may affect demand for our products, and may cause our revenue derived from sales in this market to vary significantly over time, adversely affecting our financial results.

A downturn in the Communications and Computing end market could cause a meaningful reduction in demand for our products and limit our ability to maintain revenue levels and operating results.

Revenue from the Communications and Computing end market accounted for 28% of our revenue in the first three months of fiscal 2018. Three of our top five programmable logic customers participate primarily in the Communications and Computing end market. In the past, cyclical weakening in demand for programmable logic products from customers in the Communications and Computing end market has adversely affected our revenue and operating results. In addition, telecommunication equipment providers are building network infrastructure for which we compete for product sales. Any deterioration in the Communications and Computing end market, our end customers' reduction in spending, or a reduction in spending by their customers to support this end market or use of our competitors' products could lead to a reduction in demand for our products which could adversely affect our revenue and results of operations. This type of decline impacted our results in the past and could do so again in the future.

The Industrial and Automotive end market has increased in significance for us, and a downturn in this end market could cause a meaningful reduction in demand for our products and limit our ability to maintain revenue levels and operating results.

Revenue from the Industrial and Automotive end market accounted for 41% of our revenue in the first three months of fiscal 2018. We have experienced recent concentrations of revenue at specific customers. Reductions in the magnitude of their individual revenue streams or the duration of their use of our products could adversely affect our revenue and operating results. Further, we compete for design opportunities at these customers and an inability to meet their design and pricing requirements could lead to a reduction in our revenue adversely affecting our operating results.

A single large customer may be in a position to demand certain functionality, pricing or timing requirements that may detract from or interfere with our normal business activities. If this happens, delays in our normal development schedules could occur, causing our products to miss market windows, thereby reducing the total number of units sold of a particular product.

The products we develop are complex and require significant planning and resources. In the Mobile and Consumer end market, new products are typically introduced early in the year, often in association with key trade shows. In order to meet these deadlines, our customers must complete their product development by year-end, which usually means we must ship sample parts in early spring. If we cannot ship sample parts in early spring, customers may be forced to remove the feature provided by our product, use a competitor's product, or use an alternate technology in order to meet their timelines. We plan our product development with these market windows in mind, but if we receive requests from a large customer to deploy resources to meet their requirements or work on a specific solution, our normal development path could be delayed, causing us to miss sample deadlines and therefore future revenues.



Table of Contents

We rely on information technology systems, and failure of these systems to function properly may cause business disruptions.

We rely in part on various information technology ("IT") systems to manage our operations, including financial reporting, and we regularly make changes to improve them as necessary by periodically implementing new, or upgrading or enhancing existing, operational and IT systems, procedures, and controls. We have undergone a significant integration and systems implementation following the acquisition of Silicon Image.

We have recently implemented a new enterprise resource planning ("ERP") system to standardize our processes worldwide and adopt best-in-class capabilities. We converted to the new ERP system at the beginning of the second quarter of fiscal 2017. We have committed significant resources to this new ERP system, which replaces multiple legacy systems, and realizing the full functionality of this conversion is extremely complex, in part, because of the wide range of processes and the multiple legacy systems that must be integrated.

As a result of the conversion process and during our initial use of the new ERP system, we may experience delays or disruptions in the integration of our new or enhanced systems, procedures, or controls. We may also encounter errors in data, an inability to accurately process or record transactions, and security or technical reliability issues. All of these could harm our ability to conduct core operating functions such as processing invoices, shipping and receiving, recording and reporting financial and management information on a timely and accurate basis, and could impact our internal control compliance efforts. If the technical solution or end user training are inadequate, it could limit our ability to manufacture and ship products as planned.

These systems are also subject to power and telecommunication outages or other general system failures. Failure of our IT systems or difficulties or delays in managing and integrating them could impact the company's ability to perform necessary operations, which could materially adversely affect our business.

Acquisitions, strategic investments and strategic partnerships present risks, and we may not realize the goals that were contemplated at the time of a transaction.

On March 10, 2015, we acquired Silicon Image, and we may make further acquisitions and strategic investments in the future. Acquisitions and strategic investments, including our acquisition of Silicon Image, present risks, including:

- our ongoing business may be disrupted and our management's attention may be diverted by investment, acquisition, transition, or integration activities;
- an acquisition or strategic investment may not perform as well or further our business strategy as we expected, and we may not integrate an acquired company or technology as successfully as we expected;
- we may incur unexpected costs, claims, or liabilities that we assume from an acquired company or technology or that are otherwise related to an acquisition;
- we may discover adverse conditions post-acquisition that are not covered by representations and warranties;
- we may increase some of our risks, such as increasing customer or end product concentration;
- we may have difficulty incorporating acquired technologies or products with our existing product lines;
- we may have higher than anticipated costs in continuing support and development of acquired products, and in general and administrative functions that support such products;
- we may have difficulty integrating and retaining key personnel;
- we may have difficulty integrating business systems, processes, and tools, such as accounting software, inventory management systems, or revenue systems which may have an adverse effect on our business;
- our liquidity and/or capital structure may be adversely impacted;
- our strategic investments may not perform as expected;
-

we may experience unexpected changes in how we are required to account for our acquisitions and strategic investments pursuant to U.S. GAAP;

we may have difficulty integrating acquired entities into our global tax structure with potentially negative impacts on our effective tax rate;

if the acquisition or strategic investment does not perform as projected, we might take a charge to earnings due to impaired goodwill;

- we may divest certain assets of acquired businesses, leading to charges against earnings;

we may experience unexpected negative responses from vendors or customers to the acquisition, which may adversely impact our operations; and

we may have difficulty integrating the processes and control environment.

The occurrence of any of these risks could have a material adverse effect on our business, results of operations, financial condition, or cash flows, particularly in the case of a larger acquisition or several concurrent acquisitions or strategic investments. In addition, we may enter into strategic partnerships with third parties with the goal of gaining access to new and innovative products and technologies. Strategic partnerships pose many of the same risks as acquisitions or investments.

## Table of Contents

We cannot guarantee that we will be able to complete any future acquisitions or that we will realize any anticipated benefits from any of our past or future acquisitions, strategic investments, or strategic partnerships. We may not be able to find suitable acquisition opportunities that are available at attractive valuations, if at all. A sustained decline in the price of our common stock may make it more difficult and expensive to initiate or complete additional acquisitions on commercially acceptable terms.

We are required under U.S. GAAP to test goodwill for possible impairment on an annual basis and to test goodwill and long-lived assets, including amortizable intangible assets, for impairment at any other time that circumstances arise indicating the carrying value may not be recoverable. For purposes of testing goodwill for impairment, the Company currently operates as one reporting unit: the core Lattice ("Core") business, which includes intellectual property and semiconductor devices. No impairment charges were recorded in the first quarter of fiscal 2018, and no impairment charges related to goodwill were recorded in either fiscal year 2017 or 2016. Impairment charges related to amortizable intangible assets from the Silicon Image acquisition totaled approximately \$32.4 million and \$7.9 million in fiscal years 2017 and 2016, respectively. There is no assurance that future impairment tests will indicate that goodwill or amortizable intangible assets will be deemed recoverable. As we continue to review our business operations and test for impairment or in connection with possible sales of assets, we may have impairment charges in the future, which may be material.

A number of factors, including our inventory strategy, can impact our gross margins.

A number of factors, including how products are manufactured to support the consumer market segment, yield, wafer pricing, cost of packaging raw materials, product mix, market acceptance of our new products, competitive pricing dynamics, geographic and/or end market mix, and pricing strategies, can cause our gross margins to fluctuate significantly either positively or negatively from period to period. In addition, forecasting our gross margins is difficult because a significant portion of our business is based on turns within the same quarter.

Our customers typically test and evaluate our products prior to deciding to design our product into their own products, and then require additional time to begin volume production of those products. This lengthy sales cycle may cause us to experience significant delays and to incur additional inventory costs until we generate revenue from our products. It is possible that we may never generate any revenue from products after incurring significant expenditures.

While our sales cycles are typically long, our average product life cycles tend to be short as a result of the rapidly changing technology environment in which we operate. In addition, our inventory levels may be higher than historical norms, from time to time, due to inventory build decisions aimed at meeting expected demand from a single large customer, reducing direct material cost or enabling responsiveness to expected demand. In the event the expected demand does not materialize, or if our short sales cycle does not generate sufficient revenue, we may be subject to incremental excess and obsolescence costs. In addition, future product cost reductions could impact our inventory valuation, which could adversely affect our operating results.

We and our connectivity customers depend on the availability of certain functions and capabilities within mobile and personal computing operating systems over which we may have no control. New releases of these operating systems may render certain of our products inoperable or may require significant engineering effort to create new device driver software.

Certain portions of our business operate within a market that is dominated by a few key OEMs. These OEMs could play a role in driving the growth of our business or could prevent our growth through deliberate or non-deliberate action. We do not have a presence in the Windows eco-system or in all iOS or Android devices. Our success and ability to grow depend upon our ability to continue to be successful within the iOS and Android eco-systems or gain significant traction within the Windows eco-system. Failure to maintain and grow our presence in these key eco-systems could adversely affect unit volumes.

Further, many of our products depend on the availability of certain functionality in the device operating system, typically Android, Linux, Windows, or iOS. Certain operating system primitives are needed to support video output. We have no control over these operating systems or the companies that produce them, and it is unlikely that we could influence any internal decision these companies make that may have a negative impact on our integrated circuits and their function. Updates to these operating systems that, for example, change the way video is output or remove the ability to output video could materially affect sales of MHL and HDMI integrated circuits.

Products targeted to personal computing or mobile, laptop, or notebook designs often require device driver software to operate. This software is difficult to produce and may require certifications before being released. Failure to produce this software could have a negative impact on our relation with operating system providers and may damage our reputation with end consumers as a quality supplier of products.

Table of Contents

Shortages in, or increased costs of, wafers and materials could adversely impact our gross margins and lead to reduced revenues.

Worldwide manufacturing capacity for silicon wafers is relatively inelastic. If the demand for silicon wafers or assembly material materially exceeds market supply, our supply of silicon wafers or assembly material could quickly become limited. A shortage in manufacturing capacity could hinder our ability to meet product demand and therefore reduce our revenue. In addition, silicon wafers constitute a material portion of our product cost. If we are unable to purchase wafers at favorable prices, our gross margins will be adversely affected.

We depend on independent contractors for most of our assembly and test services, and disruption of their services, or an increased in cost of these services, could negatively impact our financial condition and results of operations.

We depend on subcontractors to assemble, test, and ship our products with acceptable quality and yield levels. Our operations and operating results may be adversely affected if we experience problems with our subcontractors that impact the delivery of product to our customers. Those problems may include: prolonged inability to obtain wafers or packaging materials with competitive performance and cost attributes; inability to achieve adequate yields or timely delivery; disruption or defects in assembly, test, or shipping services; or delays in stabilizing manufacturing processes or ramping up volume for new products. Economic conditions may adversely impact the financial health and viability of our subcontractors and result in their inability to meet their commitments to us resulting in product shortages, quality assurance problems, reduced revenue, and/or increased costs which could negatively impact our financial condition and results of operations.

In the past, we have experienced delays in obtaining assembled and tested products and in securing assembly and test capacity commitments from our suppliers. While we believe our current assembly and test capacity commitments are adequate, these existing commitments may not be sufficient for us to satisfy customer demand in future periods. We negotiate assembly and test prices and capacity commitments from our contractors on a periodic basis. If any of our assembly or test contractors reduce their capacity commitment or increase their prices, and we cannot find alternative sources, our operating results could be adversely affected.

We rely on independent software and hardware developers and disruption of their services could negatively affect our operations and financial results.

We rely on independent software and hardware developers for the design, development, supply, and support of intellectual property cores; design and development software; and certain elements of evaluation boards. As a result, failure or significant delay to complete software or deliver hardware in accordance with our plans, specifications, and agreements could disrupt the release of or introduction of new or existing products, which could be detrimental to the capability of our new or existing products to win designs. Any of these delays or inability to complete the design or development could have an adverse effect on our business, financial condition, or operating results.

Our participation in HDMI and MHL has included our acting as agent for these consortia for which we have been receiving adopter fees. We no longer act as agent for the HDMI standard and there is no guarantee that we will continue to act as agent for the MHL standard. Accordingly, we now receive a reduced share of HDMI adopter fees and we could in the future lose MHL adopter fees.

Through our wholly owned subsidiary, HDMI Licensing, LLC, we acted as agent of the HDMI consortium until December 31, 2016 and were responsible for promoting and administering the specification. We received all of the adopter fees paid by adopters of the HDMI specification in connection with our role as agent. In September 2016, the Founders of the HDMI consortium ("Founders"), of which we are a member, amended the Founders Agreement resulting in changes to our role as agent for the HDMI consortium and to the model for sharing adopter fee revenues.

Under the terms of the agreement, our role as the agent was terminated effective January 1, 2017 and a new independent entity was appointed to act as the new HDMI licensing agent with responsibility for licensing and the distribution of royalties among Founders. As a result of the amended model for sharing adopter fee revenue, we will be entitled to a reduced share of adopter fees paid by parties adopting the HDMI standard.

In addition, another member of the HDMI consortium asserts that we owe the other HDMI consortium Founders their respective shares of any HDMI adopter fees not used by us in the marketing and other activities in furtherance of the HDMI standard from our time as agent. The consortium member has previously indicated its belief that the HDMI Founders enjoy a right to these funds but has never pursued such claim. If a determination is made that there were excess adopter fees or if it is determined that we were obligated to share such fees with other consortium members, it could negatively impact our financial position. At this stage of the proceedings, we do not have an estimate of the likelihood or the amount of any financial consequences to us.

## Table of Contents

We share HDMI royalties with the other HDMI Founders based on an allocation formula, which is reviewed every three years. The most recent royalty sharing formula covered the period from January 1, 2014 through December 31, 2016, and a new agreement is yet to be signed. Our portion of the royalty allocation has declined for the last several years. In 2015, we received between 24% and 25% of the royalty allocation, while for 2016, we received 20% of the royalty allocation. The royalty allocation for 2017 and future years is not yet known but may decline. If the level continues to decline, our financial performance could be adversely affected. In addition, delays in the signing of new royalty sharing agreements impacted our timing of revenue recognition and ability to recognize revenue related to the royalties in fiscal 2017. With our adoption of ASU 2014-09, Revenue from Contracts with Customers (Topic 606) as of the beginning of fiscal 2018, we will recognize revenue related to royalties based on estimates of the amounts we will be entitled to receive, and these estimates could differ materially from actual royalty sharing amounts.

Through our wholly owned subsidiary, MHL, LLC, we act as agent of the MHL specification and are responsible for promoting and administering the specification. As agent, we are entitled to receive license fees paid by adopters of the MHL specification sufficient to reimburse us for the costs we incur to promote and administer the specification. Given the limited number of MHL adopters to date, we do not believe the license fees paid by such adopters will be sufficient to reimburse us for these costs and we make no assurance that the license fees paid by MHL adopters will ever be sufficient to reimburse us the costs we incur as agent of the specification.

We currently intend to promote and continue to be involved and actively participate in other standard setting initiatives. For example, through Silicon Image's acquisition of SiBEAM, Inc. in May 2011, it achieved SiBEAM's prior position as founder and chair of the WirelessHD Consortium. We may decide to license additional elements of our intellectual property to others for use in implementing, developing, promoting, or adopting standards in our target markets, in certain circumstances at little or no cost. This may make it easier for others to compete with us in such markets. In addition, even if we receive license fees or royalties in connection with the licensing of our intellectual property, we make no assurance that such license fees or royalties will compensate us adequately.

Our failure to control unauthorized access to our IT systems may cause problems with key business partners or liability.

We may be subject to unauthorized access to our IT systems through a security breach or cyber-attack. In the ordinary course of our business, we maintain sensitive data on our networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our customers and business partners. The secure maintenance of this information is critical to our business and reputation. We believe that companies have been increasingly subject to a wide variety of security incidents, cyber-attacks, and other attempts to gain unauthorized access. Cyber-attacks have become more prevalent and much harder to detect and defend against. Our network and storage applications may be subject to unauthorized access by hackers or breached due to operator error, malfeasance, or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and to assess the damage caused by them. In the past, third parties have attempted to penetrate and/or infect our network and systems with malicious software in an effort to gain access to our network and systems.

These data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. Cyber-attacks could also cause us to incur significant remediation costs, result in product development delays, disrupt key business operations, and divert attention of management and key information technology resources. Our reputation, brand, and business could be significantly harmed, and we could be subject to third party claims in the event of such a security breach.

Recent tax law changes and our global organizational structure and operations expose us to unanticipated tax consequences.

Our legal organizational structure could result in unanticipated unfavorable tax or other consequences which could have an adverse effect on our financial condition and results of operations. We have a global tax structure to more effectively align our corporate structure with our business operations including responsibility for sales and purchasing activities. We created new and realigned existing legal entities; completed intercompany sales of rights to intellectual property, inventory, and fixed assets across different tax jurisdictions; and implemented cost-sharing and intellectual property licensing and royalty agreements between our legal entities. We currently operate legal entities in countries where we conduct supply-chain management, design, and sales operations around the world. In some countries, we maintain multiple entities for tax or other purposes. In addition, we are currently conducting further restructuring activities following our acquisition of Silicon Image as we integrate Silicon Image and its subsidiaries, which include numerous foreign entities, into our existing global tax and corporate structures. These integration activities, changes in tax laws, regulations, future jurisdictional profitability of the Company and its subsidiaries, and related regulatory interpretations in the countries in which we operate may impact the taxes we pay or tax provision we record, which could adversely affect our results of operations.



## Table of Contents

We are subject to taxation in the United States, Singapore, and other countries. Future effective tax rates could be affected by changes in the composition of earnings in countries with differing tax rates, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws. We compute our effective tax rate using actual jurisdictional profits and losses. Changes in the jurisdictional mix of profits and losses may cause fluctuations in the effective tax rate. Adverse changes in tax rates, our tax assets, and tax liabilities could negatively affect our results in the future.

We make no assurance as to what taxes we pay or the ability to estimate our future effective tax rate because of, among other things, uncertainty regarding the tax policies of the jurisdictions where we operate. In particular, we anticipate that the Tax Cuts and Jobs Act, enacted December 22, 2017, will impact us. While we are able to quantify or estimate the effects of some of the provisions now in the act, we do not know of all of the rules the Internal Revenue Service ("IRS") will enact to fully implement the tax law changes, or the IRS' interpretations of the changes. We also continue to analyze and understand the changes and the impacts on us, including the indirect impacts that result from how our industry or we might modify behaviors in a response to the new tax law structure. We also provide no assurance that estimates we provide to quantify the effect of the changes may be accurate.

Product quality problems could lead to reduced revenue, gross margins, and net income.

In general, we warrant our products for varying lengths of time against non-conformance to our specifications and certain other defects. Because our products, including hardware, software, and intellectual property cores, are highly complex and increasingly incorporate advanced technology, our quality assurance programs may not detect all defects, whether manufacturing defects in individual products or systematic defects that could affect numerous shipments. Inability to detect a defect could result in a diversion of our engineering resources from product development efforts, increased engineering expenses to remediate the defect, and increased costs due to customer accommodation or inventory impairment charges. On occasion we have also repaired or replaced certain components, made software fixes, or refunded the purchase price or license fee paid by our customers due to product or software defects. If there are significant product defects, the costs to remediate such defects, net of reimbursed amounts from our vendors, if any, or to resolve warranty claims may adversely affect our revenue, gross margins, and net income.

The nature of our business makes our revenue and gross margin subject to fluctuation and difficult to predict with accuracy, which could have an adverse impact on our business and our ability to provide forward-looking revenue and gross margin guidance.

In addition to the challenging market conditions we may face, we have limited visibility into the demand for our products, particularly new products, because demand for our products depends upon our products being designed into our end customers' products and those products achieving market acceptance. Due to the complexity of our customers' designs, the design to volume production process for many of our customers requires a substantial amount of time, frequently longer than a year. In addition, we are dependent upon "turns," orders received and turned for shipment in the same quarter. These factors make it difficult for us to accurately forecast future sales and project quarterly revenues. The difficulty in forecasting future sales weakens our ability to project our inventory requirements, which could result, and in the past has resulted, in inventory write-downs or failure to meet customer product demands in a timely manner. While we may give guidance, the difficulty in forecasting revenues as well as the relative customer and product mix of those revenues limits our ability to provide accurate forward-looking revenue and gross margin guidance.

Reductions in the average selling prices of our products could have a negative impact on our gross margins.

The average selling prices of our products generally decline as the products mature or may decline as we compete for market share or customer acceptance in competitive markets. We seek to offset the decrease in selling prices through yield improvement, manufacturing cost reductions, and increased unit sales. We also seek to continue to develop

higher value products or product features that increase, or slow the decline of, the average selling price of our products. However, we cannot guarantee that our ongoing efforts will be successful or that they will keep pace with the decline in selling prices of our products, which could ultimately lead to a decline in revenues and have a negative effect on our gross margins.

## Table of Contents

If we are unable to adequately protect our intellectual property rights, our financial results and our ability to compete effectively may suffer.

Our success depends in part on our proprietary technology and we rely upon patent, copyright, trade secret, mask work, and trademark laws to protect our intellectual property. We intend to continue to protect our proprietary technology, however, we may be unsuccessful in asserting our intellectual property rights or such rights may be invalidated, violated, circumvented, or challenged. From time to time, third parties, including our competitors, have asserted against us patent, copyright, and other intellectual property rights to technologies that are important to us. Third parties may attempt to misappropriate our intellectual property through electronic or other means or assert infringement claims against us in the future. Such assertions by third parties may result in costly litigation, indemnity claims, or other legal actions, and we may not prevail in such matters or be able to license any valid and infringed patents from third parties on commercially reasonable terms. This could result in the loss of our ability to import and sell our products or require us to pay costly royalties to third parties in connection with sales of our products. Any infringement claim, indemnification claim, or impairment or loss of use of our intellectual property could materially adversely affect our financial condition and results of operations.

A material change in the agreements governing encryption keys we use could place additional restrictions on us, or our distributors or contract manufacturers, which could restrict product shipment or significantly increase the cost to track products throughout the distribution chain.

Many of the components in our products contain encryption keys used in connection with High Definition Content Protection ("HDCP"). The regulation and distribution of these encryption keys are controlled through license agreements with Digital Content Protection ("DCP"), a wholly owned subsidiary of Intel Corporation. These license agreements have been modified by DCP from time to time, and such changes could impact us, our distributors, and our customers. An important element of both HDMI and MHL is the ability to implement link protection for high definition ("HD"), and more recently, 4K UltraHD, content. We implement various aspects of the HDCP link protection within certain parts we sell. We also, for the benefit of our customers, include the necessary HDCP encryption keys in parts we ship to customers. These encryption keys are provided to us from DCP. We have a specific process for tracking and handling these encryption keys. If DCP changes any of the tracking or handling requirements associated with HDCP encryption keys, we may be required to change our manufacturing and distribution processes, which could adversely affect our manufacturing and distribution costs associated with these products. If we cannot satisfy new requirements for the handling and tracking of encryption keys, we may have to cease shipping or manufacturing certain products.

Our participation in consortia for the development and promotion of industry standards in certain of our target markets, including the HDMI, MHL, and WirelessHD standards, requires us to license some of our intellectual property for free or under specified terms and conditions, which makes it easier for others to compete with us in such markets.

An element of our business strategy includes participating in consortia to establish industry standards in certain of our target markets; promoting and enhancing specifications; and developing and marketing products based on those specifications and future enhancements. We intend to continue participating in consortia that develop and promote the HDMI, MHL, and WirelessHD specifications. In connection with our participation in these consortia, we make certain commitments regarding our intellectual property, in each case with the effect of making certain of our intellectual property available to others, including our competitors, desiring to implement the specification in question. For example, we must license specific elements of our intellectual property to others for use in implementing the HDMI specification, including enhancements, as long as we remain part of the consortium. Also, we must agree not to assert certain necessary patent claims against other members of the MHL consortium, even if those members may have infringed upon those patents in implementing the MHL specification.

Accordingly, certain companies that implement these specifications in their products may use specific elements of our intellectual property to compete with us. Although in the case of the HDMI and MHL consortia, there are annual fees and royalties associated with the adopters' use of the technology, we make no assurance that our shares of such annual fees and royalties will adequately compensate us for having to license or refrain from asserting our intellectual property. In September 2016, the Founders of the HDMI consortium, of which we are a member, amended the Founders Agreement resulting in changes to our role as agent for the HDMI consortium and to the model for sharing adopter fee revenues. Under the terms of the agreement, our role as the agent was terminated effective January 1, 2017 and a new independent entity was appointed to act as the new HDMI licensing agent with responsibility for licensing and the distribution of royalties among Founders. As a result of the amended model for sharing adopter fee revenue, we will be entitled to a reduced share of adopter fees paid by parties adopting the HDMI standard.

Our revenue depends, in part, on the continued adoption and widespread implementation of the HDMI and MHL specifications and the new implementation and adoption of the WirelessHD specifications.

Our future revenue depends, in part, upon the continued adoption and widespread implementation of the HDMI, MHL, and WirelessHD specifications. From time to time, competing standards have been established which negatively affect the success of existing standards or jeopardize the creation of new standards. Our failure to continue to drive innovation in the MHL specifications could have an adverse effect on our business going forward.

Table of Contents

MHL has not been widely adopted, and if manufacturers who have included MHL in their designs decide that MHL is no longer necessary or cost-effective as a product feature, they could choose to omit the MHL functionality (and our product) from their designs. Such decisions would adversely affect our revenues.

We now have 60GHz wireless technology that we hope will be made widely available and adopted by the marketplace through the efforts of the WirelessHD consortium and incorporated into certain of our future products. As with our HDMI and MHL products and intellectual property, our success with this technology will depend on our ability to introduce first-to-market WirelessHD-enabled semiconductor and intellectual property solutions to our customers and to continue to innovate within the WirelessHD standard. WiGig is an example of a competing 60GHz standard that has been created as an alternative high-bandwidth wireless connectivity solution for the personal computing industry. While the WiGig standard has not been in the market as long as the WirelessHD standard, it does represent a viable alternative to WirelessHD for 60GHz connectivity. If WiGig should gain broader adoption before WirelessHD is adopted, it could negatively impact the adoption of WirelessHD.

As successor-in-interest to Silicon Image, we have granted Intel Corporation certain rights with respect to our intellectual property, which could allow Intel to develop products that compete with ours or otherwise reduce the value of our intellectual property.

Silicon Image entered into a patent cross-license agreement with Intel in which each of them granted the other a license to use the patents filed by the grantor prior to a specified date, except for use related to identified types of products. We believe that the scope of this license to Intel excludes our current products and anticipated future products. Intel could, however, exercise its rights under this agreement to use certain of our patents received in the acquisition of Silicon Image to develop and market other products that compete with ours, without payment to us. Additionally, Intel's rights to these patents could reduce the value of the patents to any third-party who otherwise might be interested in acquiring rights to use these patents in such products. Finally, Intel could endorse competing products, including a competing digital interface, or develop its own proprietary digital interface. Any of these actions could substantially harm our business and results of operations.

Litigation and unfavorable results of legal proceedings could adversely affect our financial condition and operating results.

From time to time we are subject to various legal proceedings and claims that arise out of the ordinary conduct of our business. Certain claims are not yet resolved, including those that are discussed under "Note 15 - Contingencies" contained in the Notes to Consolidated Financial Statements, and additional claims may arise in the future. Results of legal proceedings cannot be predicted with certainty. Regardless of merit, litigation may be both time-consuming and disruptive to our operations and cause significant expense and diversion of management attention and we may enter into material settlements to avoid these risks. Should we fail to prevail in certain matters, we may be faced with significant monetary damages or injunctive relief against us that could materially and adversely affect our financial condition and operating results and certain portions of our business.

We depend upon a third party to provide inventory management, order fulfillment, and direct sales logistics and disruption of these services could adversely impact our business and results of operations.

We rely on a third party vendor to provide cost-effective and efficient supply chain services. Among other activities, these outsourced services relate to direct sales logistics, including order fulfillment, inventory management and warehousing, and distribution of inventory to third party distributors. If our third party supply chain provider were to discontinue services for us or its operations are disrupted as a result of a fire, earthquake, act of terrorism, political unrest, governmental uncertainty, war, disease, or other natural disaster or catastrophic event, or any other reason, our ability to fulfill direct sales orders and distribute inventory timely, cost effectively, or at all, would be hindered, which

could adversely affect our business.

We may have failed to adequately insure against certain risks, and, as a result, our financial condition and results may be adversely affected.

We carry insurance customary for companies in our industry, including, but not limited to, liability, property, and casualty; workers' compensation; and business interruption insurance. We also insure our employees for basic medical expenses. In addition, we have insurance contracts that provide director and officer liability coverage for our directors and officers. Other than the specific areas mentioned above, we are self-insured with respect to most other risks and exposures, and the insurance we carry in many cases is subject to a significant policy deductible or other limitation before coverage applies. Based on management's assessment and judgment, we have determined that it is more cost effective to self-insure against certain risks than to incur the insurance premium costs. The risks and exposures for which we self-insure include, but are not limited to, certain natural disasters, certain product defects, political risk, certain theft, patent infringement, and employment practice matters. Should there be a catastrophic loss due to an uninsured event (such as an earthquake) or a loss due to adverse occurrences in any area in which we are self-insured, our financial condition or operating results could be adversely affected.

Table of Contents

We compete with others to attract and retain key personnel, and any loss of, or inability to attract, such personnel could adversely affect our ability to compete effectively.

We depend on the efforts and abilities of certain key members of management and other technical personnel. Our future success depends, in part, upon our ability to retain such personnel and attract and retain other highly qualified personnel, particularly product engineers who can respond to market demands and required product innovation. Competition for such personnel is intense and we may not be successful in hiring or retaining new or existing qualified personnel. From time to time we have effected restructurings which have eliminated a number of positions. Even if such personnel are not directly affected by the restructuring effort, such terminations can have a negative impact on morale and our ability to attract and hire new qualified personnel in the future. If we lose existing qualified personnel or are unable to hire new qualified personnel, as needed, we could have difficulty competing in our highly-competitive and innovative environment.

## ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

## ITEM 5. OTHER INFORMATION

None.

## ITEM 6. EXHIBITS

Exhibit Number	Description
31.1	<u>Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.</u>
32.1	<u>Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
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 Extension Labels Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

50

---



Table of Contents

SIGNATURES

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.

LATTICE SEMICONDUCTOR CORPORATION  
(Registrant)

/s/ Max Downing  
MAX DOWNING  
Chief Financial Officer  
(Duly Authorized Officer and Principal Financial and Accounting Officer)

Date: May 7, 2018