HARMONIC INC
Form 10-Q
August 06, 2018
Table of Contents

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

Form 10-Q

(Mark One)
ý Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Quarterly Period Ended June 29, 2018

¨ Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
Commission File No. 000-25826

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

Delaware	77-0201147
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

4300 North First Street
San Jose, CA 95134
(408) 542-2500
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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 ý 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý No ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth 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	ý
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. ¨

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

The number of shares of the registrant's Common Stock, $.001 par value, outstanding on July 27, 2018 was 86,031,433.

Table of Contents

TABLE OF CONTENTS

Table of Contents

PART I
FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS
HARMONIC INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands, except per share data)

	June 29, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$54,098	$57,024
Accounts receivable, net	82,635	69,844
Inventories	22,994	25,976
Prepaid expenses and other current assets	19,377	18,931
Total current assets	179,104	171,775
Property and equipment, net	25,631	29,265
Goodwill	241,176	242,827
Intangibles, net	17,010	21,279
Other long-term assets	42,863	42,913
Total assets	$505,784	$508,059
LIABILITIES AND STOCKHOLDERS’ EQUITY		
Current liabilities:		
Other debts and capital lease obligations, current	$1,723	$7,610
Accounts payable	28,992	33,112
Income taxes payable	560	233
Deferred revenue	56,278	52,429
Accrued and other current liabilities	51,221	48,705
Total current liabilities	138,774	142,089
Convertible notes, long-term	111,702	108,748
Other debts and capital lease obligations, long-term	14,318	15,336
Income taxes payable, long-term	1,086	917
Other non-current liabilities	19,169	22,626
Total liabilities	285,049	289,716
Commitments and contingencies (Note 15)		
Stockholders’ equity:		
Preferred stock, $0.001 par value, 5,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $0.001 par value, 150,000 shares authorized; 85,439 and 82,554 shares issued and outstanding at June 29, 2018 and December 31, 2017, respectively	85	83
Additional paid-in capital	2,283,649	2,272,690
Accumulated deficit	(2,062,988)	(2,057,812)
Accumulated other comprehensive income (loss)	(11)	3,382
Total stockholders’ equity	220,735	218,343
Total liabilities and stockholders’ equity	$505,784	$508,059

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

HARMONIC INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except per share data)

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Revenue:				
Product	$60,599	$50,190	$115,973	$100,594
Service	38,561	32,125	73,314	64,664
Total net revenue	99,160	82,315	189,287	165,258
Cost of revenue:				
Product	31,251	32,005	57,860	58,107
Service	16,306	16,495	32,641	32,928
Total cost of revenue	47,557	48,500	90,501	91,035
Total gross profit	51,603	33,815	98,786	74,223
Operating expenses:				
Research and development	21,542	27,055	44,999	51,937
Selling, general and administrative	27,988	32,625	59,151	67,256
Amortization of intangibles	800	780	1,604	1,554
Restructuring and related charges	631	777	1,717	2,056
Total operating expenses	50,961	61,237	107,471	122,803
Income (loss) from operations	642	(27,422)	(8,685)	(48,580)
Interest expense, net	(2,863)	(2,680)	(5,620)	(5,270)
Other income (expense), net	199	(819)	(333)	(1,330)
Loss before income taxes	(2,022)	(30,921)	(14,638)	(55,180)
Provision for income taxes	891	579	1,969	347
Net loss	$(2,913)	$(31,500)	$(16,607)	$(55,527)
Net loss per share:				
Basic and diluted	$(0.03)	$(0.39)	$(0.20)	$(0.69)
Shares used in per share calculation:				
Basic and diluted	85,304	80,590	84,616	80,203

The accompanying notes are an integral part of these condensed consolidated financial statements.

4

Table of Contents

HARMONIC INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited, in thousands)

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Net loss	$(2,913)	$(31,500)	$(16,607)	$(55,527)
Other comprehensive income (loss) before tax:				
Change in unrealized loss on available-for-sale securities:				
Unrealized loss arising during the period	—	(114)	—	(613)
Change in foreign currency translation adjustments	(4,758)	3,994	(3,024)	4,883
Other comprehensive income (loss) before tax	(4,758)	3,880	(3,024)	4,270
Less: Provision for income taxes	369	—	369	2
Other comprehensive income (loss), net of tax	(5,127)	3,880	(3,393)	4,268
Total comprehensive loss	$(8,040)	$(27,620)	$(20,000)	$(51,259)

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

HARMONIC INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Six months ended	
	June 29, 2018	June 30, 2017
Cash flows from operating activities:		
Net loss	$(16,607)	$(55,527)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Amortization of intangibles	4,194	4,144
Depreciation	6,771	7,139
Stock-based compensation	8,769	7,387
Amortization of discount on convertible debt and issuance cost	2,954	2,676
Restructuring, asset impairment and loss on retirement of fixed assets	93	228
Amortization of non-cash warrant	395	416
Deferred income taxes, net	530	(38)
Foreign currency adjustments	(1,042)	1,131
Provision for excess and obsolete inventories	822	5,094
Allowance for doubtful accounts and returns	623	3,274
Other non-cash adjustments, net	64	189
Changes in operating assets and liabilities:		
Accounts receivable	(13,572)	23,479
Inventories	2,000	2,912
Prepaid expenses and other assets	1,897	5,933
Accounts payable	(4,187)	1,434
Deferred revenue	9,378	1,308
Income taxes payable	503	228
Accrued and other liabilities	(337)	(8,793)
Net cash provided by operating activities	3,248	2,614
Cash flows from investing activities:		
Proceeds from maturities of investments	—	3,106
Proceeds from sales of investments	—	3,792
Purchases of property and equipment	(3,181)	(5,943)
Net cash (used in) provided by investing activities	(3,181)	955
Cash flows from financing activities:		
Proceeds from other debts and capital leases	—	164
Repayment of other debts and capital leases	(6,176)	(6,650)
Proceeds from common stock issued to employees	2,366	2,117
Payment of tax withholding obligations related to net share settlements of restricted stock units	(54)	(2,726)
Net cash used in financing activities	(3,864)	(7,095)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(588)	935
Net decrease in cash, cash equivalents and restricted cash	(4,385)	(2,591)
Cash, cash equivalents and restricted cash at beginning of period	58,757	57,420
Cash, cash equivalents and restricted cash at end of period	$54,372	$54,829

Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets

Cash and cash equivalents	$54,098	$52,885

Restricted cash included in prepaid expenses and other current assets	274	802
Restricted cash included in other long-term assets	—	1,142
Total cash, cash equivalents and restricted cash	$54,372	$54,829

The accompanying notes are an integral part of these condensed consolidated financial statements.

Table of Contents

HARMONIC INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1: BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements, in the opinion of management, include all adjustments (consisting only of normal recurring adjustments) which Harmonic Inc. ("Harmonic," or the "Company") considers necessary to present fairly the results of operations for the interim periods covered and the consolidated financial condition of the Company at the date of the balance sheets. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's audited consolidated financial statements contained in the Company's Annual Report on Form 10-K, which was filed with the Securities and Exchange Commission on March 5, 2018 (the "2017 Form 10-K"). The interim results presented herein are not necessarily indicative of the results of operations that may be expected for the full fiscal year ending December 31, 2018, or any other future period. The Company's fiscal quarters are based on 13-week periods, except for the fourth quarter, which ends on December 31.

The condensed consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The condensed consolidated balance sheet as of December 31, 2017 was derived from audited financial statements, and the unaudited condensed consolidated financial statements included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") for interim reporting. As permitted under those requirements, certain footnotes or other financial information that are normally required by generally accepted accounting principles in the United States of America ("U.S. GAAP") have been condensed or omitted.

Reclassifications

Certain prior period balances have been reclassified to conform to the current period's presentation. These reclassifications did not have a material impact on previously reported financial statements.

Use of Estimates

The preparation of the condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The Company's reported financial positions or results of operations may be materially different under changed conditions or when using different estimates and assumptions, particularly with respect to significant accounting policies. If estimates or assumptions differ from actual results, subsequent periods are adjusted to reflect more current information.

Significant Accounting Policies

The Company's significant accounting policies are described in Note 2 to its audited Consolidated Financial Statements included in the 2017 Form 10-K. There have been no significant changes to these policies during the six months ended June 29, 2018 other than those disclosed in Note 2, "Recently Adopted Accounting Pronouncements".

NOTE 2: RECENT ACCOUNTING PRONOUNCEMENTS

Recently Adopted Accounting Pronouncements

ASC Topic 606, "Revenue from Contracts with Customers"

On January 1, 2018, the Company adopted ASC 606, Revenue from Contracts with Customers ("Topic 606"), using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for the reporting period beginning January 1, 2018 are presented under Topic 606, while prior period amounts are not restated and continue to be reported in accordance with our historic accounting under ASC 605, Revenue Recognition ("Topic 605").

Under Topic 606, the Company began to recognize a contract asset for satisfied performance obligations that do not provide the Company with an unconditional right to consideration, which was restricted under the previous standard. In addition, the Company changed its revenue recognition for professional services from a completed contract method to a percentage of completion method.

Table of Contents

The cumulative effect of initially applying Topic 606 to the Company's condensed consolidated balance sheet on January 1, 2018 was as follows (in thousands):

CONDENSED CONSOLIDATED BALANCE SHEETS	Balance as of December 31, 2017	Cumulative Impact from Adopting Topic 606	Balance as of January 1, 2018
ASSETS			
Accounts receivable, net	$ 69,844	$ 1,781	$ 71,625
Prepaid expenses and other current assets	18,931	3,578	22,509
Other long-term assets	42,913	773	43,686
LIABILITIES AND STOCKHOLDERS' EQUITY			
Deferred revenue	$ 52,429	$ (4,826)	$ 47,603
Other non-current liabilities	22,626	(473)	22,153
Accumulated deficit	(2,057,812)	11,431	(2,046,381)

The impact from adopting Topic 606 on the Company's condensed consolidated financial statements was as follows (in thousands):

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS	Three months ended June 29, 2018			Six months ended June 29, 2018		
	As Reported	Previous Accounting Guidance	Impact from Adopting Topic 606	As Reported	Previous Accounting Guidance	Impact from Adopting Topic 606
Total net revenue	$99,160	$ 98,714	$ 446	$189,287	$ 188,037	$ 1,250
Total cost of revenue	47,557	47,316	241	90,501	90,141	360
Total gross profit	51,603	51,398	205	98,786	97,896	890
Operating expenses:						
Selling, general and administrative	27,988	28,570	(582)	59,151	59,541	(390)
Income (loss) from operations	642	(145)	787	(8,685)	(9,965)	1,280
Loss before income taxes	(2,022)	(2,809)	787	(14,638)	(15,918)	1,280
Net loss	(2,913)	(3,700)	787	(16,607)	(17,887)	1,280

CONDENSED CONSOLIDATED BALANCE SHEETS	As of June 29, 2018		
	As Reported	Previous Accounting Guidance	Impact from Adopting Topic 606
ASSETS			
Accounts receivable, net	82,635	78,065	$ 4,570
Prepaid expenses and other current assets	19,377	15,918	3,459
Other long-term assets	42,863	42,360	503
LIABILITIES AND STOCKHOLDERS' EQUITY			
Deferred revenue	56,278	60,032	(3,754)
Other non-current liabilities	19,169	19,594	(425)
Accumulated deficit	(2,062,988)	(2,075,699)	12,711

8

Table of Contents

Revenue Recognition

The Company's principal sources of revenue are from the sale of hardware, software, hardware and software maintenance contracts, and end-to-end solutions, encompassing design, manufacture, test, integration and installation of products. The Company also derives recurring revenue from subscriptions, which are comprised of subscription fees from customers utilizing the Company's cloud-based media processing solutions.

Revenue from contracts with customers is recognized using the following five steps:

a) Identify the contract(s) with a customer;
b) Identify the performance obligations in the contract;
c) Determine the transaction price;
d) Allocate the transaction price to the performance obligations in the contract; and
e) Recognize revenue when (or as) the Company satisfies a performance obligation.

A contract contains a promise (or promises) to transfer goods or services to a customer. A performance obligation is a promise (or a group of promises) that is distinct. The transaction price is the amount of consideration a Company expects to be entitled from a customer in exchange for providing the goods or services.

The unit of account for revenue recognition is a performance obligation (a good or service). A contract may contain one or more performance obligations. Performance obligations are accounted for separately if they are distinct. A good or service is distinct if the customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer, and the good or service is distinct in the context of the contract. Otherwise performance obligations will be combined with other promised goods or services until the Company identifies a bundle of goods or services that is distinct.

The transaction price is allocated to all the separate performance obligations in an arrangement. It reflects the amount of consideration to which the Company expects to be entitled in exchange for transferring goods or services, which may include an estimate of variable consideration to the extent that it is probable of not being subject to significant reversals in the future based on the Company's experience with similar arrangements. The transaction price also reflects the impact of the time value of money if there is a significant financing component present in an arrangement. The transaction price excludes amounts collected on behalf of third parties, such as sales taxes.

Revenue is recognized when the Company satisfies each performance obligation by transferring control of the promised goods or services to the customer. Goods or services can transfer at a point in time or over time depending on the nature of the arrangement.

Deferred revenue represents the Company's obligation to transfer goods or services to a customer for which the Company has received consideration (or an amount of consideration is due) from the customer. Our payment terms vary by the type and location of our customer and the products or services offered. The term between invoicing and when payment is due is not significant. For certain products or services and customer types, we require payment before the products or services are delivered to the customer. During the three and six months ended June 29, 2018, the Company recognized $24.1 million and $44.0 million of revenue, respectively, that were included in Deferred revenue at the beginning of each respective period.

Contract assets exist when the Company has satisfied a performance obligation but does not have an unconditional right to consideration (e.g., because the entity first must satisfy another performance obligation in the contract before it is entitled to invoice the customer). Contract assets are reported as a component of "Prepaid expenses and other current assets" on the Condensed Consolidated Balance Sheets. See Note 6, "Balance Sheet Components' for additional information.

Shipping and handling costs are accounted for as a fulfillment cost and are recorded in cost of revenue in the Company’s Condensed Consolidated Statements of Operations.

Hardware and Software. Revenue from the sale of hardware and software products is recognized when the control is transferred. For most of the Company’s product sales (including sales to distributors and system integrators), the control is transferred at the time the product is shipped or delivery has occurred because the customer has significant risks and rewards of ownership of the asset and the Company has a present right to payment at that time. The Company’s agreements with the distributors and system integrators have terms which are generally consistent with the standard terms and conditions for the sale of the Company’s equipment to end users, and do not provide for product rotation or pricing allowances, as are typically

Table of Contents

found in agreements with stocking distributors. We offer trade-in rights which are specifically identified and accrued for at the end of the period through contra-revenue.

Arrangements with Multiple Performance Obligations. The Company has revenue arrangements that include multiple performance obligations. The Company allocates transaction price to all separate performance obligations based on their relative standalone selling prices ("SSP"). The Company's best evidence for SSP is the price the Company charges for that good or service when the Company sells it separately in similar circumstances to similar customers. If goods or services are not always sold separately, the Company uses the best estimate of SSP in the allocation of transaction price. The objective of determining the best estimate of SSP is to estimate the price at which the Company would transact a sale if the product or service were sold on a standalone basis. The Company's process for determining best estimate of SSP involves management's judgment, and considers multiple factors including, but not limited to, major product groupings, geographies, gross margin objectives and pricing practices. Pricing practices taken into consideration include contractually stated prices, discounts offered and applicable price lists. These factors may vary over time, depending upon the unique facts and circumstances related to each deliverable. If the facts and circumstances underlying the factors considered change or should future facts and circumstances lead the Company to consider additional factors, the Company's best estimate of SSP may also change.

Solution Sales. Solution sales for the design, manufacture, test, integration and installation of products, including equipment acquired from third parties to be integrated with Harmonic's products, that are customized to meet the customer's specifications are accounted for based on the percentage-of-completion basis, using the input method. Some of our arrangements may include acceptance provisions that require testing of the solution against specific performance criteria. The Company performs a detailed evaluation to determine whether the arrangement involves performance criteria based on our standard performance criteria. The Company has a long-standing history of entering into contractual arrangements to deliver the solution sales based on standard performance criteria. For this type of arrangement, we consider the customer acceptance clause not substantive and recognize product revenue when the customer takes possession on the product and recognize service on a percentage-of-completion basis. However, if the solution results in significant production, modification or customization, we consider the arrangement as a single performance obligation and recognize the revenue at a point in time, depending on the complexity of the solution and nature of acceptance.

Professional services. Revenue from professional services is recognized over time, on the percentage-of-completion basis using the input method.

Input method. The use of the input method requires the Company to make reasonably dependable estimates. We use the input method based on labor hours, where revenue is calculated based on the percentage of total hours incurred in relation to total estimated hours at completion of the contract. The input method is reasonable because the hours best reflect the Company's efforts toward satisfying the performance obligation over time. As circumstances change over time, the Company updates its measure of progress to reflect any changes in the outcome of the performance obligation. Such changes to an entity's measure of progress are accounted for as a change in accounting estimates.

Support and maintenance. Support and maintenance services are satisfied ratably over time as the customer simultaneously receives and consumes the benefits of the services. As a result, support and maintenance revenue is recognized on a straight line basis over the period of the contract.

Contract costs. The incremental costs of obtaining a contract are capitalized if the costs are expected to be recovered. Costs that are recognized as assets are amortized straight-line over the period as the related goods or services transfer to the customer. Costs incurred to fulfill a contract are capitalized if they are not covered by other relevant guidance, relate directly to a contract, will be used to satisfy future performance obligations, and are expected to be recovered.

The Company recorded a net decrease to the opening balance of accumulated deficit of $1.4 million as of January 1, 2018 for capitalizing contract costs due to the cumulative impact of adopting Topic 606 for sales commissions related to customer contracts with an amortization period in excess of one year. Anticipated contract renewals, amendments, and follow-on contracts with the same customer are considered when determining the period of amortization.

The net capitalized contract costs as of June 29, 2018 were $1.8 million, of which $1.3 million and $0.5 million were reported as components of “Prepaid expenses and other current assets” and “Other long-term assets” on the Condensed Consolidated Balance Sheets, respectively. The amortization of the capitalized contract costs during the three and six months ended June 29, 2018 was $0.3 million and $0.5 million, respectively.

Table of Contents

Significant Judgments. The Company has revenue arrangements that include promises to transfer multiple products and services to a customer. The Company may exercise significant judgment when determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together.

The Company allocates the transaction price to all separate performance obligations based on the SSP of each obligation. The Company's best evidence for SSP is the price the Company charges for that good or service when the Company sells it separately in similar circumstances to similar customers. If goods or services are not always sold separately, the Company uses the best estimate of SSP in the allocation of the transaction price. The objective of determining the best estimate of SSP is to estimate the price at which the Company would transact a sale if the product or service were sold on a standalone basis. The Company's process for determining the best estimate of SSP involves management's judgment, and considers multiple factors including, but not limited to, major product groupings, geographies, gross margin objectives and pricing practices. Pricing practices taken into consideration include contractually stated prices, discounts and applicable price lists. These factors may vary over time, depending upon the unique facts and circumstances related to each deliverable. If the facts and circumstances underlying the factors considered change or should future facts and circumstances lead the Company to consider additional factors, the Company's best estimate of SSP may also change.

Practical Expedients and Exemptions. Under Topic 606, incremental costs of obtaining a contract such as sales commissions are capitalized if they are expected to be recovered, and amortized on a straight-line basis. Expensing these costs as incurred is not permitted unless they qualify for a practical expedient. Other than capitalized costs of obtaining subscription contracts which are amortized regardless of the life of expected amortization period, the Company elected the practical expedient to expense the costs to obtain all other contracts as incurred, when the life of the expected amortization period is one year or less by using a portfolio approach.

The Company elected the practical expedient under Topic 606 to not disclose the transaction price allocated to remaining performance obligations, since the majority of the Company's arrangements have original expected durations of one year or less, or the invoicing corresponds to the value of the Company's performance completed to date.

The Company elected the practical expedient that allows the Company to not assess a contract for a significant financing component if the period between the customer's payment and the transfer of the goods or services is one year or less.

See Note 14, "Segment Information" for further disaggregated revenue information.

Other Recently Adopted Accounting Pronouncements

In January 2016, the Financial Accounting Standards Board ("FASB) issued Accounting Standards Updated ("ASU") No. 2016-01, Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities, which requires equity investments to be measured at fair value with changes in fair value recognized in net income and simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment. The Company adopted this new standard in the first quarter of fiscal 2018, and the adoption did not have a material impact on its condensed consolidated financial statements. See Note 3, "Investments in Equity Securities" for additional information.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash, which requires entities to present the aggregate changes in cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, the statement of cash flows will be required to present restricted cash and restricted cash equivalents as a part of the beginning and ending balances of cash and cash equivalents. The Company adopted this new standard in the first quarter of fiscal 2018 on a retrospective basis. The Company's total restricted cash balance was $0.3 million and $1.7 million as of June 29, 2018 and December 31, 2017, respectively. The Company's total restricted cash balance was $1.9 million and $1.8 million as of June 30, 2017 and December 31, 2016, respectively. These restricted cash balances are presented as a part of the ending and beginning balances of cash, cash equivalents and restricted cash on the Company's Condensed Consolidated Statements of Cash Flows for the corresponding periods. See Note 6, "Balance Sheet Components" for additional information.

In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business. The objective of ASU 2017-01 is to clarify the definition of a business in order to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill and consolidation. The Company adopted this new standard in the first quarter of fiscal 2018, and the adoption had no impact on its condensed consolidated financial statements.

Table of Contents

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), to amend the existing accounting standard for lease accounting. Under this guidance, lessees and lessors should apply a "right-of-use" model in accounting for all leases (including subleases) and eliminate the concept of operating leases and off-balance sheet leases. The new leases standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. The new ASU will be effective for the Company beginning in the first quarter of fiscal 2019 and early adoption is permitted. The Company will be required to recognize the right-of-use assets and liabilities of operating leases upon adoption of the new guidance. The Company continues to evaluate the effect of adopting this guidance on its consolidated financial statements and related disclosures.

In July 2018, the FASB issued ASU No. 2018-11, Leases (Topic 842): Targeted Improvements, which amends ASC Topic 842 to provide another transition method, allowing a cumulative effect adjustment to the opening balance of retained earnings during the period of adoption.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which changes the impairment model for most financial assets and certain other instruments. For trade receivables and other instruments, the Company will be required to use a new forward-looking "expected loss" model. Additionally, credit losses on available-for-sale debt securities should be recorded through an allowance for credit losses limited to the amount by which fair value is below amortized cost. The new ASU will be effective for the Company beginning in the first quarter of fiscal 2020 and early adoption is permitted. The adoption of the new ASU is not expected to have a material impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The new ASU removes Step 2 of the goodwill impairment test and requires the assessment of fair value of individual assets and liabilities of a reporting unit to measure goodwill impairments. Goodwill impairment will then be the amount by which a reporting unit's carrying value exceeds its fair value. The new ASU will be effective for the Company beginning in the first quarter of fiscal 2020 on a prospective basis, and early adoption is permitted. The Company is currently evaluating the impact of adopting the new ASU on its consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting. The new ASU expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for specific guidance on inputs to an option pricing model and the attribution of cost. The new ASU will be effective for the Company beginning in the first quarter of fiscal 2019 and early adoption is permitted. The adoption of the new ASU is not expected to have a material impact on the Company's consolidated financial statements.

NOTE 3: INVESTMENTS IN EQUITY SECURITIES
Vislink

In 2014, the Company acquired a 3.3% interest in Vislink plc ("Vislink"), a U.K. public company listed on the AIM exchange, for $3.3 million. On February 3, 2017, Vislink completed the disposal of its hardware division and changed its name to Pebble Beach Systems ("PBS"). The Company does not have significant influence over PBS's operational and financial policies. The carrying value of the investment in PBS was fully written off as of December 31, 2017.

Beginning the first quarter of fiscal 2018, the Company adopted ASU No. 2016-01, Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities, which requires equity investments to be measured at fair value with changes in fair value recognized in net income. As a result of adopting this new standard, the Company started measuring the investment in PBS at fair value based on its quoted stock price on the AIM exchange. The Company recorded a gain on change in fair value of the investment in PBS to Other income (expense), net of $0.2 million and $0.2 million during both the three and six months ended June 29, 2018.

Table of Contents

Unconsolidated Variable Interest Entities (“VIE”)

EDC

In 2014, the Company acquired an 18.4% interest in Encoding.com, Inc. (“EDC”), a privately held video transcoding service company headquartered in San Francisco, California, for $3.5 million by purchasing EDC’s Series B preferred stock. EDC is considered a VIE but the Company determined that it is not the primary beneficiary of EDC. As a result, EDC is measured at its cost minus impairment, if any. The Company determined that there were no indicators at June 29, 2018 that the EDC investment was impaired.

NOTE 4: DERIVATIVES AND HEDGING ACTIVITIES

The Company uses forward contracts to manage exposures to foreign currency exchange rates. The Company’s primary objective in holding derivative instruments is to reduce the volatility of earnings and cash flows associated with fluctuations in foreign currency exchange rates and the Company does not use derivative instruments for trading purposes. The use of derivative instruments exposes the Company to credit risk to the extent that the counterparties may be unable to meet their contractual obligations. As such, the potential risk of loss with any one counterparty is closely monitored by the Company.

Derivatives Not Designated as Hedging Instruments (Balance Sheet Hedges)

The Company’s balance sheet hedges consist of foreign currency forward contracts that generally mature within three months, are carried at fair value, and are used to minimize the short-term impact of foreign currency exchange rate fluctuation on cash and certain trade and inter-company receivables and payables. Changes in the fair value of these foreign currency forward contracts are recognized in “Other income (expense), net” in the Condensed Consolidated Statement of Operations and are largely offset by the changes in the fair value of the assets or liabilities being hedged. Losses on the non-designated derivative instruments recognized during the periods presented were as follows (in thousands):

		Three months ended		Six months ended	
	Financial Statement Location	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Derivatives not designated as hedging instruments:					
Losses recognized in income	Other income (expense), net	$(1,268)	$(53)	$(1,382)	$(185)

The U.S. dollar equivalents of all outstanding notional amounts of foreign currency forward contracts, including the Euro, British pound, Israeli shekel and Japanese yen, are summarized as follows (in thousands):

	June 29, 2018	December 31, 2017
Derivatives not designated as hedging instruments:		
Purchase	$24,743	$ 12,875
Sell	$1,658	$ 1,509

Table of Contents

The locations and fair value amounts of the Company's derivative instruments reported in its Condensed Consolidated Balance Sheets are as follows (in thousands):

	Balance Sheet Location	Asset Derivatives June 29, 2018	Asset Derivatives December 31, 2017	Balance Sheet Location	Derivative Liabilities June 29, 2018	Derivative Liabilities December 31, 2017
Derivatives not designated as hedging instruments:						
Foreign currency contracts	Prepaid expenses and other current assets	$ 14	$ 33	Accrued and other current liabilities	$ 298	$ 4
Total derivatives		$ 14	$ 33		$ 298	$ 4

Offsetting of Derivative Assets and Liabilities

The Company recognizes all derivative instruments on a gross basis in the Condensed Consolidated Balance Sheets. However, the arrangements with its counterparties allows for net settlement, which are designed to reduce credit risk by permitting net settlement with the same counterparty. As of June 29, 2018, information related to the offsetting arrangements was as follows (in thousands):

	Gross Amounts of Derivatives	Gross Amounts of Derivatives Offset in the Condensed Consolidated Balance Sheets	Net Amounts of Derivatives Presented in the Condensed Consolidated Balance Sheets	Gross Amounts of Derivatives Not Offset in the Condensed Consolidated Balance Sheets: Financial Instrument	Net Amount
Derivative assets	$ 14	—	$ 14	$ (14)	$ —
Derivative liabilities	$ 298	—	$ 298	$ (14)	$ 284

In connection with foreign currency derivatives entered in Israel, the Company's subsidiaries in Israel are required to maintain a compensating balance with their bank at the end of each month. The compensating balance arrangements do not legally restrict the use of cash and as of June 29, 2018, the total compensating balance maintained was $1.0 million.

Table of Contents

NOTE 5: FAIR VALUE MEASUREMENTS

The authoritative accounting guidance establishes a framework for measuring fair value and requires disclosure about the fair value measurements of assets and liabilities. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability, in the principal or most advantageous market for the asset or liability, in an orderly transaction between market participants on the measurement date. This guidance requires the Company to classify and disclose assets and liabilities measured at fair value on a recurring basis, as well as fair value measurements of assets and liabilities measured on a nonrecurring basis in periods subsequent to initial measurement, in a three-tier fair value hierarchy as described below.

Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The guidance describes three levels of inputs that may be used to measure fair value:

- Level 1 — Observable inputs that reflect quoted prices for identical assets or liabilities in active markets.
- Level 2 — Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices 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. The forward exchange contracts are classified as Level 2 because they are valued using quoted market prices and other observable data for similar instruments in an active market.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table sets forth the fair value of the Company's financial assets and liabilities measured at fair value on a recurring basis based on the three-tier fair value hierarchy (in thousands):

	Level 1	Level 2	Level 3	Total
As of June 29, 2018				
Cash equivalents				
Money market funds	$—	$—	$ —	$—
Derivative assets	—	14	—	14
Other long-term assets				
Long-term investment	178	—	—	178
Total assets measured and recorded at fair value	$178	$14	$ —	$192
Accrued and other current liabilities				
Derivative liabilities	$—	$298	$ —	$298
Total liabilities measured and recorded at fair value	$—	$298	$ —	$298

	Level 1	Level 2	Level 3	Total
As of December 31, 2017				
Cash equivalents				
Money market funds	$22	$—	$ —	$22
Prepaid expenses and other current assets				
Derivative assets	—	33	—	33
Total assets measured and recorded at fair value	$22	$33	$ —	$55
Accrued and other current liabilities				
Derivative liabilities	$—	$4	$ —	$4
Total liabilities measured and recorded at fair value	$—	$4	$ —	$4

The Company's liability for the TVN VDP (as defined below) was $3.4 million and $5.1 million as of June 29, 2018 and December 31, 2017, respectively. This amount is not included in the table above because its fair value at inception, based on Level 3 inputs, was determined during the fourth quarter of fiscal 2016. There has been no recurring fair value re-measurement for this liability subsequently based on the applicable accounting guidance. See Note 8, "Restructuring and related charges-TVN VDP," for additional information on the Company's TVN VDP liabilities.

Table of Contents

The carrying value of the Company’s financial instruments, including cash equivalents, restricted cash, accounts receivable, accounts payable and accrued and other current liabilities, approximate fair value due to their short maturities.

The Company uses the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The fair value of the Company’s convertible notes is influenced by interest rates, the Company’s stock price and stock market volatility. The fair value of the Company’s convertible notes was approximately $133.6 million and $129.9 million as of June 29, 2018 and December 31, 2017, respectively, and represents a Level 2 valuation. The Company’s other debts assumed from the TVN acquisition are classified within Level 2 because these borrowings are not actively traded and the majority of them have a variable interest rate structure based upon market rates currently available to the Company for debt with similar terms and maturities, therefore, the carrying value of these debts approximate its fair value. The other debts, excluding capital leases, outstanding as of June 29, 2018 and December 31, 2017 were in the aggregate of $15.5 million and $21.8 million, respectively. (See Note 9, “Convertible Notes, Other debts and Capital Leases” for additional information).

During the six months ended June 29, 2018, there were no nonrecurring fair value measurements of assets and liabilities subsequent to initial recognition.

NOTE 6: BALANCE SHEET COMPONENTS

The following tables provide details of selected balance sheet components (in thousands):

	June 29, 2018	December 31, 2017
Accounts receivable, net:		
Accounts receivable	$86,253	$74,475
Less: allowances for doubtful accounts and sales returns	(3,618)	(4,631)
Total	$82,635	$69,844

	June 29, 2018	December 31, 2017
Prepaid expenses and other current assets:		
Deferred cost of revenue	$7,688	$4,440
Prepaid maintenance, royalty, rent, property taxes and value added tax	3,753	3,867
Contract assets(1)	2,704	—
Capitalized commission	1,293	—
Restricted cash(2)	274	530
French R&D tax credits receivable(3)	103	6,609
Other	3,562	3,485
Total	$19,377	$18,931

(1) Contract assets reflect the satisfied performance obligations for which the Company does not yet have an unconditional right to consideration.

(2) Amounts represent cash collateral security for certain bank guarantees. These restricted funds are invested in bank deposits and cannot be withdrawn from the Company’s accounts without the prior written consent of the applicable secured party.

(3) The Company’s TVN subsidiary in France (the “TVN French Subsidiary”) participates in the French Crédit d’Impôt Recherche program (the “R&D tax credits”) which allows companies to monetize eligible research expenses. The R&D tax credits can be used to offset against income tax payable to the French government in each of the four years after being incurred, or if not utilized, are recoverable in cash. The amount of R&D tax credits recoverable are subject to audit by the French government. The R&D tax credits receivable at June 29, 2018 were approximately $24.0 million and are expected to be recoverable from 2018 through 2022 with $0.1 million reported as a component of “Prepaid expenses and other current assets” and $23.9 million reported as a component of “Other long-term assets” on the

Company's Condensed Consolidated Balance Sheets.

Table of Contents

	June 29, 2018	December 31, 2017
Inventories:		
Raw materials	$1,973	$ 2,881
Work-in-process	755	933
Finished goods	8,871	10,130
Service-related spares	11,395	12,032
Total	$22,994	$ 25,976

	June 29, 2018	December 31, 2017
Property and equipment, net:		
Machinery and equipment	$88,129	$87,121
Capitalized software	35,527	35,139
Leasehold improvements	14,978	15,051
Furniture and fixtures	6,499	6,534
Property and equipment, gross	145,133	143,845
Less: accumulated depreciation and amortization	(119,502)	(114,580)
Total	$25,631	$29,265

	June 29, 2018	December 31, 2017
Other long-term assets:		
R&D tax credits receivable	$23,940	$ 22,322
Deferred tax assets	9,563	10,462
Equity investment	3,771	3,593
Others[1]	5,589	6,536
Total	$42,863	$ 42,913

(1) As of December 31, 2017, the Company had approximately $1.2 million of restricted cash for the bank guarantee associated with the TVN French Subsidiary's office building lease. The restriction was subsequently released and accordingly, the amount was reclassified to "Cash and cash equivalents" in the six months ended June 29, 2018.

	June 29, 2018	December 31, 2017
Accrued and other current liabilities:		
Accrued employee compensation and related expenses	$15,750	$ 16,414
Customer deposits	4,888	5,020
Accrued warranty	4,647	4,381
Contingent inventory reserves	3,700	3,806
Accrued royalty payments	2,583	2,195
Accrued TVN VDP, current[1]	2,446	3,186
Accrued Avid litigation settlement, current	1,500	—
Others	15,707	13,703
Total	$51,221	$ 48,705

(1) See Note 8, "Restructuring and related charges-TVN VDP," for additional information on the Company's TVN VDP liabilities.

17

NOTE 7: GOODWILL AND IDENTIFIED INTANGIBLE ASSETS

Goodwill

Goodwill represents the difference between the purchase price and the estimated fair value of the identifiable assets acquired and liabilities assumed. Goodwill is allocated among and evaluated for impairment at the reporting unit level, which is defined as an operating segment or one level below an operating segment. The Company has two reporting units, Video and Cable Access.

The Company tests for goodwill impairment at the reporting unit level on an annual basis in the fiscal fourth quarter, or more frequently, if events or changes in circumstances indicate that the asset is more likely than not impaired. The Company performed its annual goodwill impairment review at the reporting unit level as of October 31, 2017, with no goodwill impairment indicated. There were no events or circumstances which triggered additional impairment reviews for the periods presented.

The changes in the carrying amount of goodwill by reportable segments for the six months ended June 29, 2018 were as follows (in thousands):

	Video	Cable Access	Total
Balance as of December 31, 2017	$182,012	$60,815	$242,827
Foreign currency translation adjustment	(1,633)	(18)	(1,651)
Balance as of June 29, 2018	$180,379	$60,797	$241,176

Intangible Assets

The following is a summary of intangible assets (in thousands):

		June 29, 2018			December 31, 2017		
	Weighted Average Remaining Life (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Developed core technology	1.7	$31,707	$(22,985)	$8,722	$31,707	$(20,396)	$11,311
Customer relationships/contracts	2.7	44,690	(36,664)	8,026	44,819	(35,205)	9,614
Trademarks and trade names	1.7	630	(368)	262	654	(300)	354
Maintenance agreements and related relationships	n/a	5,500	(5,500)	—	5,500	(5,500)	—
Order Backlog	n/a	3,128	(3,128)	—	3,177	(3,177)	—
Total identifiable intangibles		$85,655	$(68,645)	$17,010	$85,857	$(64,578)	$21,279

Amortization expense for the identifiable purchased intangible assets for the three and six months ended June 29, 2018 and June 30, 2017 was allocated as follows (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Included in cost of revenue	$1,295	$1,295	$2,590	$2,590
Included in operating expenses	800	780	1,604	1,554
Total amortization expense	$2,095	$2,075	$4,194	$4,144

The estimated future amortization expense of purchased intangible assets with definite lives is as follows (in thousands):

	Cost of Revenue	Operating Expenses	Total
Year ended December 31,			
2018 (remaining six months)	$ 2,590	$ 1,584	$4,174
2019	5,180	3,167	8,347
2020	951	3,036	3,987
2021	—	502	502
Total future amortization expense	$ 8,721	$ 8,289	$17,010

NOTE 8: RESTRUCTURING AND RELATED CHARGES

The Company has implemented several restructuring plans in the past few years. The goal of these plans was to bring operational expenses to appropriate levels relative to its net revenues, while simultaneously implementing extensive company-wide expense control programs.

The Company accounts for its restructuring plans under the authoritative guidance for exit or disposal activities. The restructuring and related charges are included in “Cost of revenue” and “Operating expenses - Restructuring and related charges” in the Condensed Consolidated Statements of Operations. The following table summarizes the restructuring and related charges (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Restructuring and related charges in:				
Cost of revenue	$115	$ 278	$877	$ 786
Operating expenses - Restructuring and related charges	631	777	1,717	2,056
Total restructuring and related charges	$746	$ 1,055	$2,594	$ 2,842

As of June 29, 2018 and December 31, 2017, the Company’s total restructuring liability was $6.1 million and $8.0 million, respectively, of which $3.5 million and $4.4 million, respectively, were reported as a component of “Accrued and other current liabilities”, and the remaining $2.6 million and $3.6 million, respectively, were reported as a component of “Other non-current liabilities” on the Company’s Condensed Consolidated Balance Sheets.

Harmonic 2018 Restructuring

In the first quarter of 2018, the Company approved and implemented a restructuring plan (the “Harmonic 2018 Restructuring Plan”). The restructuring activities under this plan primarily include worldwide workforce reductions of the Company. As of June 29, 2018, the Company recorded an aggregate amount of $1.8 million of restructuring and related charges for severance and employee benefits for 55 employees worldwide, primarily in the United States and across all functions. The Company made $1.7 million in payments for this plan in the six months ended June 29, 2018, with the remaining $0.1 million liability outstanding at June 29, 2018. The activities under this plan are expected to be completed in 2018.

Harmonic 2017 Restructuring

In the third quarter of 2017, the Company implemented a restructuring plan (the “Harmonic 2017 Restructuring Plan”) to better align its operating costs with the continued decline in its net revenues. In 2017, the Company recorded $2.5 million of restructuring and related charges under this plan, consisting of $2.1 million of employee severance and $0.4 million related to the closure of one of the Company’s offices in New York. The activities under this plan were completed in 2017. As of June 29, 2018, the remaining $0.2 million liability outstanding relates to the accrual for the New York excess facility, which will be paid out over the remainder of the New York leased property’s term through

August 2020.

Table of Contents

Harmonic 2016 Restructuring

In the first quarter of 2016, the Company implemented a restructuring plan (the “Harmonic 2016 Restructuring Plan”) to reduce operating costs by consolidating duplicative resources in connection with the acquisition of Thomson Video Networks (“TVN”). The planned activities included global workforce reductions, exiting certain operating facilities and disposing of excess areas, and an employee voluntary departure plan in France (the “TVN VDP”).

In 2016, the Company recorded an aggregate of $20.0 million of restructuring and related charges under the Harmonic 2016 Restructuring Plan, of which $2.2 million was primarily related to the Company exiting from an excess facility at its U.S. headquarters and the remaining $17.8 million was related to severance and benefits for the termination of 118 employees worldwide, including 83 employees in France who participated in the TVN VDP. The restructuring and related charges under the Harmonic 2016 Restructuring Plan in 2016 were partially offset by approximately $2.0 million of gain from TVN pension curtailment.

TVN VDP

The Company recorded $0.5 million and $1.8 million of TVN VDP costs in the six months ended June 29, 2018 and June 30, 2017, respectively. The TVN VDP liability balance as of June 29, 2018 was $3.8 million, payable from 2018 through 2020.

Excess Facility in San Jose, California

In January 2016, the Company exited an excess facility at its U.S. headquarters in San Jose, California and recorded $1.4 million of facility exit costs. The fair value of this liability is based on a net present value model using a credit-adjusted risk-free rate. The liability will be paid out over the remainder of the leased properties’ term, which continues through August 2020. As of the cease-use date, the fair value of this restructuring liability totaled $2.5 million. Offsetting this charge was an adjustment for deferred rent liability relating to this space of $1.1 million. As a result of a change in the estimate of the sublease income, the restructuring liability was increased by $1.2 million as of December 31, 2017.

The following table summarizes the activity in the Company’s restructuring accrual related to the Harmonic 2016 Restructuring Plan during the six months ended June 29, 2018 (in thousands):

	Excess facilities	TVN VDP [1]	Total
Balance at December 31, 2017	$ 2,426	$ 5,128	$ 7,554
Adjustments to restructuring provisions	66	477	543
Cash payments	(502)	(1,653)	(2,155)
Foreign exchange gain	—	(107)	(107)
Balance at June 29, 2018	1,990	3,845	5,835
Less: current portion [1]	(900)	(2,446)	(3,346)
Long-term portion [1]	$ 1,090	$ 1,399	$ 2,489

(1) The current portion and long-term portion of the restructuring liability are reported as components of “Accrued and other current liabilities” and “Other non-current liabilities”, respectively, on the Company’s Condensed Consolidated Balance Sheets.

NOTE 9: CONVERTIBLE NOTES, OTHER DEBTS AND CAPITAL LEASES

4.00% Convertible Senior Notes

In December 2015, the Company issued $128.25 million in aggregate principal amount of 4.0% unsecured convertible senior notes due December 1, 2020 (the “offering” or “Notes”, as applicable) through a private placement with a financial institution. The Notes do not contain any financial covenants and the Company can settle the Notes in cash, shares of common stock, or any combination thereof. The Notes can be converted under certain circumstances described below, based on an initial conversion rate of 173.9978 shares of common stock per $1,000 principal amount of Notes (which represents an initial conversion price of approximately $5.75 per share). Interest on the Notes is payable semiannually in arrears on June 1 and December 1 of each year.

Table of Contents

Concurrent with the closing of the offering, the Company used $49.9 million of the net proceeds to repurchase 11.1 million shares of the Company's common stock from purchasers of the offering in privately negotiated transactions. In addition, the Company incurred approximately $4.1 million in debt issuance costs, resulting in net proceeds to the Company of approximately $74.2 million, which was used to fund the acquisition of our France subsidiary, TVN.
Prior to September 1, 2020, holders of the Notes may convert the Notes at their option only under the following circumstances: (1) during any fiscal quarter commencing after the fiscal quarter ending on April 1, 2016, if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the Notes on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events. Commencing on September 1, 2020 until the close of business on the second scheduled trading day immediately preceding the maturity date, the Notes will be convertible in multiples of $1,000 principal amount regardless of the foregoing circumstances.
If a fundamental change occurs, holders of the Notes may require the Company to purchase all or any portion of their Notes for cash at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, if specific corporate events occur prior to the maturity date, the conversion rate may be increased for a holder who elects to convert the Notes in connection with such a corporate event.
In accordance with the accounting guidance on embedded conversion features, the conversion feature associated with the Notes was valued at $26.1 million and bifurcated from the host debt instrument and recorded in stockholders' equity. The resulting debt discount on the Notes is being amortized to interest expense at the effective interest rate over the contractual term of the Notes. The following table presents the components of the Notes as of June 29, 2018 and December 31, 2017 (in thousands, except for years and percentages):

	June 29, 2018	December 31, 2017
Liability:		
Principal amount	$128,250	$128,250
Less: Debt discount, net of amortization	(14,767)	(17,404)
Less: Debt issuance costs, net of amortization	(1,781)	(2,098)
Carrying amount	$111,702	$108,748
Remaining amortization period (years)	2.4	2.9
Effective interest rate on liability component	9.94%	9.94%
Carrying amount of equity component	$26,062	$26,062

The following table presents interest expense recognized for the Notes (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Contractual interest expense	$1,282	$1,282	$2,565	$2,565
Amortization of debt discount	1,340	1,214	2,637	2,388
Amortization of debt issuance costs	161	146	317	288
Total interest expense recognized	$2,783	$2,642	$5,519	$5,241

Table of Contents

Other Debts and Capital Leases

The Company has a variety of debt and credit facilities in France to satisfy the financing requirements of TVN operations. These arrangements are summarized in the table below (in thousands):

	June 29, 2018	December 31, 2017
Financing from French government agencies related to various government incentive programs [1]	$14,401	$20,565
Term loans	1,081	1,282
Obligations under capital leases	559	1,099
Total debt obligations	16,041	22,946
Less: current portion	(1,723)	(7,610)
Long-term portion	$14,318	$15,336

(1) As of June 29, 2018 and December 31, 2017, loans backed by French R&D tax credit receivables were $12.0 million and $17.7 million, respectively. As of June 29, 2018, the TVN French Subsidiary had an aggregate of $24.0 million of R&D tax credit receivables from the French government from 2018 through 2022. See Note 6, "Balance Sheet Components" for additional information. These tax loans have a fixed rate of 0.6%, plus EURIBOR 1 month + 1.3% and mature between 2018 through 2020. The remaining loans of $2.4 million at June 29, 2018, primarily relate to financial support from French government agencies for R&D innovation projects at minimal interest rates, and these loans mature between 2018 through 2025.

Future minimum repayments

The table below presents the future minimum repayments of debts and capital lease obligations for TVN as of June 29, 2018 (in thousands):

Years ending December 31,	Capital lease obligations	Other Debt obligations
2018 (remaining six months)	$ 395	$ 864
2019	92	6,879
2020	49	6,687
2021	23	497
2022	—	457
Thereafter	—	98
Total	$ 559	$ 15,482

Line of Credit

On September 27, 2017, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with Silicon Valley Bank (the "Bank"). The Loan Agreement provides for a secured revolving credit facility in an aggregate principal amount of up to $15.0 million. Under the terms of the Loan Agreement, the principal amount of loans, plus the face amount of any outstanding letters of credit, at any time cannot exceed up to 85% of the Company's eligible receivables. Under the terms of the Loan Agreement, the Company may also request letters of credit from the Bank. The proceeds of any loans under the Loan Agreement will be used for working capital and general corporate purposes. Loans under the Loan Agreement will bear interest, at the Company's option, and subject to certain conditions, at an annual rate of either a prime rate or a LIBOR rate plus an applicable margin of 2.25%. There will be no applicable margin for prime rate advances when the Company is in compliance with the liquidity requirement of at least $20.0 million in the aggregate of consolidated cash plus availability under the Loan Agreement (the "Liquidity Requirement") and a 0.25% margin for prime rate advances when the Company is not in compliance with the Liquidity Requirement. The Company may not request LIBOR advances when it is not in compliance with the Liquidity Requirement. Interest on each advance is due and payable monthly and the principal balance is due at maturity. The Company's obligations under the revolving credit facility are secured by a security interest on substantially all of its assets, excluding intellectual property.

Table of Contents

The Loan Agreement contains customary affirmative and negative covenants. The Company must comply with financial covenants requiring it to maintain (i) a short-term asset to short-term liabilities ratio of at least 1.10 to 1.00 and (ii) a minimum adjusted EBITDA, in the amounts and for the periods as set forth in the Loan Agreement. The Company must also maintain a minimum liquidity amount, comprised of unrestricted cash held at accounts with the Bank plus proceeds available to be drawn under the Loan Agreement, equal to at least $10.0 million at all times. As of June 29, 2018, the Company was in compliance with the covenants under the Loan Agreement.

As of June 29, 2018, the Company committed $2.4 million towards security for letters of credit issued under the Loan Agreement. There were no other borrowings under the Loan Agreement as of June 29, 2018.

NOTE 10: EMPLOYEE BENEFIT PLANS AND STOCK-BASED COMPENSATION

Equity Award Plans

The Company's stock benefit plans include the 2002 Employee Stock Purchase Plan ("ESPP") and current active stock plans adopted in 1995 and 2002. See Note 12, "Employee Benefit Plans and Stock-based Compensation" of Notes to Consolidated Financial Statements in the 2017 Form 10-K for details pertaining to each plan.

The Company's stockholders approved an amendment to the ESPP at the 2018 annual meeting of stockholders (the "2018 Annual Meeting") to increase the number of shares of common stock reserved for issuance under the ESPP by 1,300,000 shares. The Company's stockholders also approved an amendment to the 2002 Director Stock Plan at the 2018 Annual Meeting to increase the number of shares of common stock reserved for issuance thereunder by 400,000 shares. As of June 29, 2018, there were 5.3 million and 1.8 million shares of common stock reserved for future grants under the Company's ESPP and active stock plans, respectively.

Stock Option Activities

The following table summarizes the Company's stock option activities and related information during the six months ended June 29, 2018 (in thousands, except per share amounts and terms):

	Stock Options Outstanding			
	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance at December 31, 2017	3,880	$ 6.04		
Granted	—	—		
Exercised	(87)	2.94		
Forfeited	(35)	4.76		
Canceled or expired	(538)	8.75		
Balance at June 29, 2018	3,220	5.69	2.8	$ 866.8
As of June 29, 2018				
Vested and expected to vest	3,208	5.69	2.8	$ 859.3
Exercisable	2,958	5.77	2.7	$ 696.1

The aggregate intrinsic value disclosed above represents the difference between the exercise price of the options and the fair value of the Company's common stock. There were no employee stock options granted in the six months ended June 29, 2018.

There were no realized tax benefits attributable to stock options exercised in jurisdictions where this expense is deductible for tax purposes for the three and six months ended June 29, 2018 and June 30, 2017, respectively.

Table of Contents

Restricted Stock Units (“RSUs”) Activities

The following table summarizes the Company’s RSUs activities and related information during the six months ended June 29, 2018 (in thousands, except per share amounts and terms):

	Restricted Stock Units Outstanding		
	Number of Shares		Weighted Average Grant Date Fair Value Per Share
Balance at December 31, 2017	2,904		5.09
Granted	3,293		3.74
Vested	(2,220	)	4.75
Forfeited	(183	)	5.09
Balance at June 29, 2018	3,794		4.12

Performance- and Market-based awards

Starting in 2015, the Company began to settle a portion of its incentive bonus payments to eligible employees by issuing performance-based RSU awards (“PRSUs”) from the 1995 Stock Plan. The Company granted 969,598 PRSUs to certain employees for the six months ended June 29, 2018, of which 869,598 shares of PRSUs were fully vested at the time of grant for purposes of settling amounts earned under the Company’s 2017 incentive bonus plans. The vesting of the remaining PRSUs will be based on the achievement of certain financial and non-financial operating goals of the Company. The stock-based compensation recognized for PRSUs was $0.1 million and $3.4 million for the three and six months ended June 29, 2018, respectively. The unrecognized stock-based compensation of PRSUs as of June 29, 2018 was $0.3 million.

In 2017, the Company granted 344,500 market-based RSUs (“MRSUs”) under the 1995 Stock Plan to its key executives and certain eligible employees that may vest during a three-year period as part of its long-term incentive program. In the second quarter of 2018, the Company granted 40,000 MRSUs that may vest during an eighteen-month period from the date of grant. The vesting conditions of these awards are based on the market value of the Company's common stock. The aggregate grant-date fair value of these shares was estimated to be $1.3 million using a Monte-Carlo simulation. The stock-based compensation recognized for MRSUs for the three and six months ended June 29, 2018 was $0.1 million and $0.2 million, respectively. The unrecognized stock-based compensation of the MRSUs as of June 29, 2018 was $0.1 million. No MRSUs had vested as of June 29, 2018.

French Retirement Benefit Plan

The Company assumed obligations under a defined benefit pension plan in connection with the acquisition of TVN in 2016. The plan is unfunded and there are no contributions required by laws or funding regulations, discretionary contributions or non-cash contributions expected to be made. The table below presents the components of net periodic benefit costs (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Service cost	$63	$ 55	$126	$ 110

Interest cost	19	16	38	32
Recognized net actuarial loss	—	2	—	3
Net periodic benefit cost	$82	$ 73	$164	$ 145

The present value of the Company’s pension obligation as of June 29, 2018 was $5.0 million, of which $0.1 million was reported as a component of “Accrued and other current liabilities” and $4.9 million was reported as a component of “Other non-current liabilities” on the Company’s Condensed Consolidated Balance Sheets. The present value of the Company’s pension obligation as of December 31, 2017 was $5.0 million.

Table of Contents

401(k) Plan

The Company has a retirement/savings plan for its U.S. employees, which qualifies as a thrift plan under Section 401(k) of the Internal Revenue Code. This plan allows participants to contribute up to the applicable Internal Revenue Code limitations under the plan. The Company has made discretionary contributions to the plan of 25% of the first 4% contributed by eligible participants, up to a maximum contribution per participant of $1,000 per year. The contributions for the six months ended June 29, 2018 and June 30, 2017 were $214,000 and $285,000, respectively.

Stock-based Compensation

The following table summarizes stock-based compensation for all plans (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Stock-based compensation in:				
Cost of revenue	$448	$ 700	$963	$ 1,145
Research and development expense	818	1,337	2,622	2,314
Selling, general and administrative expense	1,746	2,099	5,184	3,928
Total stock-based compensation in operating expense	2,564	3,436	7,806	6,242
Total stock-based compensation	$3,012	$ 4,136	$8,769	$ 7,387

As of June 29, 2018, total unrecognized stock-based compensation cost related to unvested stock options and RSUs was $13.3 million and is expected to be recognized over a weighted-average period of approximately 1.8 years. Prior to January 1, 2017, stock-based compensation expense was recorded net of estimated forfeitures in the Company’s Condensed Consolidated Statements of Operations and, accordingly, was recorded for only those stock-based awards that the Company expected to vest. Upon the adoption of ASU 2016-09, “Improvements to Employee Share-Based payments” issued by FASB, effective January 1, 2017, the Company changed its accounting policy to account for forfeitures as they occur. The change was applied on a modified retrospective approach with a cumulative effect adjustment of $69,000 as of January 1, 2017 (which increased the accumulated deficit).

Table of Contents

Valuation Assumptions

The Company estimates the fair value of employee stock options and stock purchase rights under the ESPP using a Black-Scholes option valuation model. The value of the stock purchase rights under the ESPP consists of: (1) the 15% discount on the purchase of the stock; (2) 85% of the fair value of the call option; and (3) 15% of the fair value of the put option. The call option and put option were valued using the Black-Scholes option pricing model. At the date of grant, the Company estimated the fair value of each stock option grant and stock purchase right granted under the ESPP using the following weighted average assumptions:

	Stock Options Three and six months ended June 30, 2017
Expected term (years)	4.3
Volatility	43%
Risk-free interest rate	1.7%
Expected dividends	0.0%

	ESPP Purchase Period Ending July 2, 2018	July 3, 2017
Expected term (years)	0.5	0.5
Volatility	60 %	41 %
Risk-free interest rate	1.7%	1.0%
Expected dividends	0.0%	0.0%
Estimated weighted average fair value per share at purchase date	$1.34	$1.40

The expected term of the employee stock options represents the weighted-average period that the stock options are expected to remain outstanding. The computation of the expected term was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. The expected term of the stock purchase rights under the ESPP represents the period of time from the beginning of the offering period to the purchase date. The Company uses its historical volatility for a period equivalent to the expected term of the options to estimate the expected volatility. The risk-free interest rate assumption is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term. The Company has not paid and does not plan to pay any cash dividends in the foreseeable future.

NOTE 11: INCOME TAXES

The Company reported the following operating results for the periods presented (in thousands):

	Three months ended June 29, 2018	June 30, 2017	Six months ended June 29, 2018	June 30, 2017
Loss before income taxes	$(2,022)	$(30,921)	$(14,638)	$(55,180)
Provision for income taxes	891	579	1,969	347
Effective income tax rate	(44.1)%	(1.9)%	(13.5)%	(0.6)%

The Company operates in multiple jurisdictions and its profits are taxed pursuant to the tax laws of these jurisdictions. The Company’s effective income tax rate may be affected by changes in, or interpretations of tax laws and tax agreements in any given jurisdiction, utilization of net operating loss and tax credit carry forwards, changes in geographical mix of income and expense, and changes in management’s assessment of matters such as the ability to realize deferred tax assets. The Company’s effective tax rate varies from year to year primarily due to the absence of several onetime, discrete items that benefited or decremented the tax rates in the previous years.

Table of Contents

The Company's effective income tax rate of (13.5)% for the six months ended June 29, 2018 was different from the U.S. federal statutory rate of 21%, primarily due to the Company's geographical income mix and favorable tax rates associated with certain earnings from operations in lower-tax jurisdictions, the increase in the valuation allowance against U.S. federal, California and other state deferred tax assets, detriment from non-deductible stock-based compensation, and the net of various discrete tax adjustments. For the six months ended June 29, 2018, the discrete adjustments to the Company's tax expense were primarily withholding taxes.

The Company files U.S. federal and state, and foreign income tax returns in jurisdictions with varying statutes of limitations during which such tax returns may be audited and adjusted by the relevant tax authorities. The 2014 through 2017 tax years generally remain subject to examination by U.S. federal and most state tax authorities. In significant foreign jurisdictions, the 2007 through 2017 tax years generally remain subject to examination by their respective tax authorities. If, upon the conclusion of an audit, the ultimate determination of taxes owed in the jurisdictions under audit is for an amount in excess of the tax provision the Company has recorded in the applicable period, the Company's overall tax expense, effective tax rate, operating results and cash flow could be materially and adversely impacted in the period of adjustment.

On July 27, 2015, the U.S. Tax Court issued an opinion in Altera Corp. v. Commissioner, 145 T.C. No.3 (2015) related to the treatment of stock-based compensation expense in an intercompany cost-sharing arrangement. A final decision was entered by the U.S. Tax Court on December 1, 2015 (the "2015 Decision"). On February 19, 2016, the U.S. Internal Revenue Service filed a notice of appeal in Altera Corp. v. Commissioner, 145 T.C. No. 3 (2015), to the Ninth Circuit Court of Appeals. The Ninth Circuit was to decide whether a regulation that mandates that stock-based compensation costs related to the intangible development activity of a qualified cost sharing arrangement (a "QCSA") must be included in the joint cost pool of the QCSA (the "all costs rule") is consistent with the arm's length standard as set forth in Section 482 of the Internal Revenue Code. On July 24, 2018, the Ninth Circuit Court of Appeals issued an opinion in Altera Corp. v. Commissioner (the "Altera Opinion") requiring related parties in an intercompany cost-sharing arrangement to share expenses related to share-based compensation. This opinion reversed the 2015 Decision of the United States Tax Court. Due to uncertainties surrounding the ultimate resolution of the 2015 Decision, the Company continued to share expenses related to share-based compensation despite the 2015 Decision. Therefore, the Altera Opinion is not expected to have an impact on the Company's consolidated financial statements.

The Company's operations in Switzerland are subject to a reduced tax rate under the Switzerland tax holiday which requires various thresholds of investment and employment in Switzerland. The Company has met these various thresholds and the Switzerland tax holiday is effective through the end of 2018.

As of June 29, 2018, the total amount of gross unrecognized tax benefits, including interest and penalties, was approximately $17.9 million, of which $1.1 million would affect the Company's effective tax rate if the benefits are eventually recognized. The remaining gross unrecognized tax benefit does not affect the Company's effective tax rate as it relates to positions that would be settled with tax attributes such as net operating loss carryforward or tax credits previously subject to a valuation allowance. The Company recognizes interest and penalties related to unrecognized tax positions in income tax expense. The Company had $0.5 million of gross interest and penalties accrued as of June 29, 2018. The Company will continue to review its tax positions and provide for, or reverse, unrecognized tax benefits as issues arise. As of June 29, 2018, the Company released $1.5 million from a 2013-2015 audit settlement in Israel.

In March 2016, the FASB issued ASU 2016-09, an accounting standard update for the accounting of share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. The new standard eliminated the requirement to report excess tax benefits and certain tax deficiencies related to share-based payment transactions as additional paid-in capital. It also removes the requirement to delay recognition of a windfall tax benefit until it reduces current taxes payable. Under the new guidance, the benefit will be recorded when it arises, subject to normal valuation allowance considerations. The Company adopted this new accounting standard beginning in the first quarter of fiscal 2017 using a modified-retrospective transition method and recorded a cumulative effect of $4.6 million of additional gross deferred tax assets associated with shared-based payments and an offsetting valuation allowance of the same amount, therefore resulting in no net impact to the Company’s beginning retained earnings.

In October 2016, the FASB issued ASU 2016-16, an accounting standard update which requires companies to recognize the income tax consequences of all intra-entity sales of assets other than inventory when they occur. As a result, a reporting entity would recognize the tax expense from the sale of the asset in the seller’s tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax assets that arise in the buyer’s jurisdiction would also be recognized at the time of the transfer. The Company early adopted this accounting standard update during the first quarter of fiscal 2017 on a modified retrospective approach and recorded a cumulative-effect adjustment of $1.4

Table of Contents

million as of January 1, 2017 (which reduced the accumulated deficit). Correspondingly, in the first quarter of fiscal 2017, the Company recognized an additional $1.1 million of net deferred tax assets, after netting with $2.1 million of valuation allowances, and wrote off the remaining $0.3 million of unamortized tax expenses deferred under the previous guidance to provision for income taxes in the first quarter of fiscal 2017.

NOTE 12: NET LOSS PER SHARE

The following table sets forth the computation of the basic and diluted net loss per share (in thousands, except per share amounts):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Numerator:				
Net loss	$(2,913)	$(31,500)	$(16,607)	$(55,527)
Denominator:				
Weighted average number of common shares outstanding				
Basic and diluted	85,304	80,590	84,616	80,203
Net loss per share:				
Basic and diluted	$(0.03)	$(0.39)	$(0.20)	$(0.69)

Basic and diluted net loss per share were the same for the three and six months ended June 29, 2018 and June 30, 2017, as the inclusion of potential common shares outstanding would have been anti-dilutive due to the Company’s net losses for the periods presented. The following table sets forth the potential weighted common shares outstanding that were excluded from the computation of basic and diluted net loss per share calculations (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Stock options	3,234	4,614	3,469	4,753
RSUs	3,326	3,400	2,766	3,054
Stock purchase rights under the ESPP	541	578	689	385
Warrants (1)	782	782	782	782
Total (2)	7,883	9,374	7,706	8,974

(1) On September 26, 2016, in connection with the execution of a product supply agreement pursuant to which an affiliate of Comcast Corporation (together with Comcast Corporation, “Comcast”) may, in its sole discretion, purchase from the Company licenses to certain of the Company’s software products, the Company granted Comcast a warrant to purchase shares of its common stock. (See Note 13, “Warrants” for additional information).

(2) Excluded from the table above are the Notes, which are convertible under certain conditions into an aggregate of 22,304,348 shares of common stock. (See Note 9, “Convertible Notes, Other Debts and Capital Leases” for additional information on the Notes). Since the Company’s intent is to settle the principal amount of the Notes in cash, the treasury stock method is being used to calculate any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread will have a dilutive impact on diluted net income per share when the Company’s average market price of its common stock for a given period exceeds the conversion price of $5.75 per share.

NOTE 13: WARRANTS

On September 26, 2016, the Company issued a Warrant to Comcast pursuant to which Comcast may, subject to certain vesting provisions, purchase up to 7,816,162 shares of the Company’s common stock, subject to adjustment in accordance with the terms of the Warrant, for a per share exercise price of $4.76. Comcast may exercise the Warrant for cash or on a net share basis. The Warrant expires on September 26, 2023 or the prior consummation of a change of control of the Company.

Table of Contents

Comcast's right to purchase 781,617 shares vested as of the issuance date as an incentive to enter into the software license product supply agreement. Comcast's rights to purchase an additional 1,954,042 shares in specified tranches vest upon achievement of certain milestones that occur upon or prior to Comcast's election for enterprise license pricing for certain of the Company's software products. Such pricing would obligate Comcast to make certain total payments to the Company over the term of the product supply agreement. These tranches include the right to purchase 1,172,425 shares upon the acceptance and completion of field trials and 781,617 shares upon the election date, as defined in the Warrant.

Comcast's rights to purchase an additional 1,172,425 shares in specified tranches vest when Comcast exceeds specified cumulative purchase amounts from the Company under the product supply agreement. Comcast's rights to purchase the remaining shares vest in specified tranches at the earlier of Comcast's enterprise license pricing election (if completed by a certain date) or achievement of specified cumulative purchase amounts from the Company.

Because the Warrant contains performance criteria which Comcast must achieve for the Warrant to vest, the final measurement date for the Warrant is the date on which the Warrant vests. Prior to the final measurement, when achievement of the performance criteria has been deemed probable, the estimated fair value of the Warrant is recorded as a reduction to net revenue based on the projected number of shares underlying the Warrant that are expected to vest, the proportion of purchases by Comcast and its affiliates within the period relative to the aggregate purchase levels required for the Warrant to vest and the then-current fair value of the Warrant. To the extent that projections change as to the number of shares underlying the Warrant that will vest and the fair market value of the Warrant changes, a cumulative catch-up adjustment is recorded in the period in which the estimates change.

The fair value of the Warrant is determined using the Black-Scholes option pricing model. The assumptions utilized in the Black-Scholes model include the risk-free interest rate, expected volatility, and expected life in years. The risk-free interest rate over the expected life is equal to the prevailing U.S. Treasury note rate over the same period. Expected volatility is determined utilizing historical volatility over a period of time equal to the expected life of the Warrant. Expected life is equal to the remaining contractual term of the Warrant. The dividend yield is assumed to be zero since the Company has not historically declared dividends and does not have any plans to declare dividends in the future.

During the three and six months ended June 29, 2018, the Company recorded $0.3 million and $0.4 million, respectively, as a reduction to net revenues in connection with amortization of warrants. During the six months ended June 30, 2017, the Company recorded reduction to net revenues of $0.4 million in connection with amortization of warrants. No such charges were recorded for the three months ended June 30, 2017. The remaining unamortized value of the related asset of $0.6 million and $1.0 million as of June 29, 2018 and December 31, 2017, respectively, was recorded as a component of "Prepaid expenses and other current assets" on the Company's Consolidated Balance Sheet.

NOTE 14: SEGMENT INFORMATION

Operating segments are defined as components of an enterprise that engage in business activities for which separate financial information is available and evaluated by the Company's Chief Operating Decision Maker (the "CODM"), which for Harmonic is its Chief Executive Officer, in deciding how to allocate resources and assess performance. Based on our internal reporting structure, the Company consists of two operating segments: Video and Cable Access. The operating segments were determined based on the nature of the products offered. The Video segment sells video processing and production and playout solutions and services worldwide to broadcast and media companies, streaming new media companies, cable operators, and satellite and telecommunications (telco) Pay-TV service providers. The Cable Access segment sells cable access solutions and related services to cable operators globally.

Table of Contents

The following table provides summary financial information by reportable segment (in thousands):

	Three months ended		Six months ended	
	June 29, 2018 (1)	June 30, 2017	June 29, 2018	June 30, 2017
Video				
Revenue	$79,208	$73,379	$150,956	$147,721
Gross profit	43,558	37,720	84,784	78,493
Operating income (loss)	6,239	(8,947)	8,234	(14,783)
Cable Access				
Revenue	$20,236	$8,936	$38,726	$17,537
Gross profit	10,187	1,699	18,827	3,909
Operating income (loss)	540	(7,411)	(973)	(13,491)
Total				
Revenue	$99,444	$82,315	$189,682	$165,258
Gross profit	53,745	39,419	103,611	82,402
Operating income (loss)	6,779	(16,358)	7,261	(28,274)

(1) The Company has historically employed an aggregate allocation methodology based on total revenues to attribute professional services revenue and sales expenses between its Video and Cable Access segments. Beginning in the fourth quarter of 2017, the Company has prospectively changed to a more precise attribution methodology as the activities of selling and supporting the CableOS solution have become increasingly distinct from those of Video solutions. The impact of making this change in the three and six months ended June 30, 2017 compared to the Company's historical approach was an increase in operating loss of $2.1 million and $3.2 million, respectively, from the Video segment and a corresponding decrease in operating loss of the Cable Access segment. The Company believes that the updated allocation methodology will provide greater clarity regarding the operating metrics of the Video and Cable Access business segments.

A reconciliation of the Company's consolidated segment operating income (loss) to consolidated loss before income taxes is as follows (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Total segment operating income (loss)	$6,779	$(16,358)	$7,261	$(28,274)
Amortization of warrants	(284)	—	(395)	—
Unallocated corporate expenses	(746)	(4,853)	(2,588)	(8,775)
Stock-based compensation	(3,012)	(4,136)	(8,769)	(7,387)
Amortization of intangibles	(2,095)	(2,075)	(4,194)	(4,144)
Income (loss) from operations	642	(27,422)	(8,685)	(48,580)
Non-operating expense, net	(2,664)	(3,499)	(5,953)	(6,600)
Loss before income taxes	$(2,022)	$(30,921)	$(14,638)	$(55,180)

Unallocated Corporate Expenses
Together with amortization of intangibles and stock-based compensation, the Company does not allocate restructuring and related charges, TVN acquisition- and integration-related costs, and certain other non-recurring charges to the operating income (loss) for each segment because management does not include this information in the measurement of the performance of the operating segments. A measure of assets by segment is not applicable as segment assets are not included in the discrete financial information provided to the CODM.

30

Table of Contents

NOTE 15: COMMITMENTS AND CONTINGENCIES

Leases

Future minimum lease payments under non-cancelable operating leases as of June 29, 2018 are as follows (in thousands):

Years ending December 31,	
2018 (remaining six months)	$6,505
2019	11,420
2020	8,379
2021	2,907
2022	2,431
Thereafter	10,758
Total	$42,400

Warranties

The Company accrues for estimated warranty costs at the time of product shipment. Management periodically reviews the estimated fair value of its warranty liability and records adjustments based on the terms of warranties provided to customers, historical and anticipated warranty claims experience, and estimates of the timing and cost of warranty claims. Activity for the Company's warranty accrual, which is included in "Accrued and other current liabilities", is summarized below (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Balance at beginning of period	$4,522	$4,585	$4,381	$4,862
Accrual for current period warranties	1,714	1,277	3,450	2,495
Warranty costs incurred	(1,589)	(1,720)	(3,184)	(3,215)
Balance at end of period	$4,647	$4,142	$4,647	$4,142

Purchase Obligations

The Company relies on a limited number of contract manufacturers and suppliers to provide manufacturing services for a substantial majority of its products. Obligations to purchase inventory and other commitments are generally expected to be fulfilled within one year. The Company had approximately $38.7 million of non-cancelable commitments to purchase inventories and other commitments as of June 29, 2018.

Standby Letters of Credit and Guarantees

As of June 29, 2018, the Company has outstanding bank guarantees and standby letters of credit in aggregate of $3.1 million, consisting primarily of $1.3 million for a building lease for the TVN French Subsidiary and $0.8 million related to contract manufacturing, with the remainder mainly related to performance bonds issued to customers. During 2017, one of the Company's subsidiaries entered into a $2.0 million credit facility with a foreign bank for the purpose of issuing performance guarantees. The credit facility is secured by a $2.2 million guarantee issued by the Company. There were no amounts outstanding under this credit facility as of June 29, 2018.

Indemnification

Harmonic is obligated to indemnify its officers and the members of its Board of Directors (the "Board") pursuant to its bylaws and contractual indemnity agreements. Harmonic also indemnifies some of its suppliers and most of its customers for specified intellectual property matters pursuant to certain contractual arrangements, subject to certain limitations. The scope of these indemnities varies, but, in some instances, includes indemnification for damages and expenses (including reasonable attorneys' fees). There have been no amounts accrued in respect of these indemnification provisions through June 29, 2018.

Legal proceedings

In October 2011, Avid Technology, Inc. (“Avid”) filed a complaint in the United States District Court for the District of Delaware alleging that our MediaGrid product infringes two patents held by Avid. A jury trial on this complaint commenced on

31

Table of Contents

January 23, 2014 and, on February 4, 2014, the jury returned a unanimous verdict in favor of us, rejecting Avid's infringement allegations in their entirety. In January 2015, Avid filed an appeal with respect to the jury's verdict with the Federal Circuit. In January 2016, the Federal Circuit issued an order vacating the verdict of noninfringement and remanding the case to the trial court for a new trial on infringement.

In June 2012, Avid served a subsequent complaint in the United States District Court for the District of Delaware alleging that our Spectrum product infringes one patent held by Avid. The complaint sought injunctive relief and unspecified damages. In September 2013, the U.S. Patent Trial and Appeal Board ("PTAB") authorized an inter partes review to be instituted as to claims 1-16 of the patent asserted in this second complaint. In July 2014, the PTAB issued a decision finding claims 1-10 invalid and claims 11-16 not invalid. We filed an appeal with respect to the PTAB's decision on claims 11-16 in September 2014, and the Federal Circuit affirmed the PTAB's decision in April 2016.

In July 2017, the court issued a scheduling order consolidating both cases and setting the trial date for November 6, 2017.

On October 19, 2017, the parties agreed to settle the consolidated cases by entering into a settlement and patent portfolio cross-license agreement, and the cases were dismissed with prejudice. In connection with the agreement, the Company recorded a $6.0 million litigation settlement expense in "Selling, general and administrative expenses" in the Company's 2017 Consolidated Statement of Operations. Of the associated $6.0 million liability, $2.5 million was paid in October 2017 and the remaining $1.5 million and $2.0 million will be paid in the second quarter of 2019 and the third quarter of 2020, respectively.

From time to time, the Company is involved in lawsuits as well as subject to various legal proceedings, claims, threats of litigation, and investigations in the ordinary course of business, including claims of alleged infringement of third-party patents and other intellectual property rights, commercial, employment, and other matters. The Company assesses potential liabilities in connection with each lawsuit and threatened lawsuits and accrues an estimated loss for these loss contingencies if both of the following conditions are met: information available prior to issuance of the financial statements indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of loss can be reasonably estimated. While certain matters to which the Company is a party specify the damages claimed, such claims may not represent reasonably probable losses. Given the inherent uncertainties of litigation, the ultimate outcome of these matters cannot be predicted at this time, nor can the amount of possible loss or range of loss, if any, be reasonably estimated.

NOTE 16: SUBSEQUENT EVENT

On July 31, 2018, pursuant to the vesting provisions of the Warrant, a tranche of 1,172,425 Warrant shares vested and became exercisable upon the acceptance of completion of field trials by Comcast. The fair value of the Warrant on the date of vesting is estimated to be $2.3 million using the Black-Scholes option pricing model. See Note 13, "Warrants" for additional information.

Table of Contents

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The terms “Harmonic,” “Company,” “we,” “us,” “its,” and “our,” as used in this Quarterly Report on Form 10-Q (this “Form 1 refer to Harmonic Inc. and its subsidiaries and its predecessors as a combined entity, except where the context requires otherwise.

Some of the statements contained in this Form 10-Q are forward-looking statements that involve risk and uncertainties. The statements contained in this Form 10-Q that are not purely historical are 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, including, without limitation, statements regarding our expectations, beliefs, intentions or strategies regarding the future. In some cases, you can identify forward-looking statements by terminology such as, “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “intends,” “estimates,” “predicts,” “continue” or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements regarding:

- developing trends and demands in the markets we address, particularly emerging markets;
- economic conditions, particularly in certain geographies, and in financial markets;
- new and future products and services;
- capital spending of our customers;
- our strategic direction, future business plans and growth strategy;
- industry and customer consolidation;
- expected demand for and benefits of our products and services;
- seasonality of revenue and concentration of revenue sources;
- expectations regarding our CableOS solutions;
- expectations regarding the impact of the Warrant issued to Comcast on our business;
- potential future acquisitions and dispositions;
- anticipated results of potential or actual litigation;
- our competitive environment;
- the impact of our restructuring plans;
- the impact of governmental regulations;
- anticipated revenue and expenses, including the sources of such revenue and expenses;
- expected impacts of changes in accounting rules;
- expectations regarding the usability of our inventory and the risk that inventory will exceed forecasted demand;
- expectations and estimates related to goodwill and intangible assets and their associated carrying value; and
- use of cash, cash needs and ability to raise capital.

These statements are subject to known and unknown risks, uncertainties and other factors, any of which may cause our actual results to differ materially from those implied by the forward-looking statements. Important factors that may cause actual results to differ from expectations include those discussed in “Risk Factors” beginning on page 46 of this Form 10-Q. All forward-looking statements included in this Form 10-Q are based on information available to us on the date thereof, and we assume no obligation to update any such forward-looking statements.

Table of Contents

OVERVIEW

We develop and sell (i) versatile and high performance video delivery software, products, system solutions and services that enable our customers to efficiently create, prepare, store, playout, and deliver a full range of high-quality broadcast and over-the-top ("OTT") video services to consumer devices, including televisions, personal computers, laptops, tablets and smart phones and (ii) cable access solutions that enable cable operators to more efficiently and effectively deploy high-speed internet, voice and video services to consumers' homes.

We do business in three geographic regions: the Americas, EMEA, and APAC and operate in two segments, Video and Cable Access. Our Video business sells video processing, production and playout solutions, and services worldwide to cable operators and satellite and telecommunications ("telco") Pay-TV service providers, which we refer to collectively as "service providers," as well as to broadcast and media companies, including streaming new media companies. Our Video business infrastructure solutions are delivered either through shipment of our products, software licenses or as software-as-a-service ("SaaS") subscriptions. Our Cable Access business sells cable access solutions and related services, including our CableOS software-based converged cable access platform ("CCAP") solutions, primarily to cable operators globally.

Historically, our revenue has been dependent upon capital spending in the cable, satellite, telco, broadcast and media industries, including streaming media. Our customers' capital spending patterns are dependent on a variety of factors, including but not limited to: economic conditions in the U.S. and international markets; access to financing; annual budget cycles of each of the industries we serve; impact of industry consolidations; and customers suspending or reducing capital spending in anticipation of new products or new standards, new industry trends and/or technology shifts. If our product portfolio and product development plans do not position us well to capture an increased portion of the capital spending in the markets in which we compete, our revenue may decline. As we attempt to further diversify our customer base in these markets, we may need to continue to build alliances with other equipment manufacturers, content providers, resellers and system integrators, managed services providers and software developers; adapt our products for new applications; take orders at prices resulting in lower margins; and build internal expertise to handle the particular operational, payment, financing and/or contractual demands of our customers, which could result in higher operating costs for us.

A majority of our revenue has been derived from relatively few customers, due in part to the consolidation of our service provider customers. Sales to our 10 largest customers during the three and six months ended June 29, 2018 accounted for 38% and 36% of our net revenue, respectively, compared to 30% and 25% for the corresponding periods in 2017. Although we are attempting to broaden our customer base by penetrating new markets and further expanding internationally, we expect to see continuing industry consolidation and customer concentration. During the three and six months ended June 29, 2018, Comcast accounted for 15% and 14% of our net revenue, respectively. No customer accounted for more than 10% of our net revenue for the corresponding periods in 2017. The loss of any significant customer, any material reduction in orders by any significant customer, or our failure to qualify our new products with a significant customer could materially and adversely affect our operating results, financial condition and cash flows.

Our net revenue increased $16.8 million, or 20%, in the three months ended June 29, 2018, compared to the corresponding period in 2017, primarily due to an $11.3 million increase in our Cable Access segment revenue and a $5.8 million increase in our Video segment revenue. Our net revenue increased $24.0 million, or 15%, in the six months ended June 29, 2018, compared to the corresponding period in 2017, primarily due to a $21.2 million increase in our Cable Access segment revenue and a $3.2 million increase in our Video segment revenue. The increases in our Cable Access segment revenue in the three and six months ended were primarily due to an increase in sales of both CableOS related software and support services. The increases in our Video segment revenue in the three and six months ended were primarily due to improved demand and competitive success across almost all of our video product lines particularly software and SaaS.

Our Video segment customers continue to be cautious with investments in new technologies, such as next-generation IP architecture and Ultra HD. We believe a material and growing portion of the opportunities for our video business are linked to a migration by our customers to IP workflows and the distribution of linear and on-demand, OTT, and new mobile video services. We continue to steadily transition our video business away from legacy and customized computing hardware to more software-centric solutions and services, including OTT SaaS subscription offerings that enable video compression and processing through our VOS software platform running on standard off-the-shelf servers, data centers and in the cloud.

Our Cable Access strategy is to deliver new virtualized DOCSIS 3.1 CMTS technology and related CCAP architectures, which we collectively refer to as our CableOS solutions, to our cable operator customers. We believe our CableOS software-based CCAP, an end-to-end cable access solution, is superior to hardware-based CCAP systems, and delivers unprecedented scalability, agility and cost savings for our customers. Our CableOS solutions, which can be deployed based on a centralized, distributed Remote PHY or hybrid architecture, enable our customers to migrate to multi-gigabit broadband capacity and the fast deployment of DOCSIS 3.1 data, video and voice services. We believe our CableOS solutions resolve space and power

Table of Contents

constraints in the headend and hub, eliminate dependence on hardware upgrade cycles and significantly reduce total cost of ownership, and will help us become a major player in the CCAP market. In the meantime, we believe our Cable Access segment is gaining momentum in the marketplace as our customers prepare for the adoption of new virtualized DOCSIS 3.1 CMTS solutions and distributed access architectures. While we are in the early stages of field trials and deployments and may experience near-term challenges, we continue to make progress in the development of our CableOS solutions and in the growth of our CableOS business, with expanded commercial deployments, field trials, and customer engagements since our first CableOS shipments in the fourth quarter of 2016.

To support our Cable Access strategy and foster the further development and growth of this segment, in September 2016, we issued Comcast a Warrant to further incentivize them to purchase our products and adopt our technologies, particularly our CableOS CCAP solutions. Pursuant to the Warrant, Comcast may, subject to certain vesting provisions, purchase up to 7,816,162 shares of our common stock, for a per share exercise price of $4.76. Because the Warrant is considered an incentive for Comcast to purchase certain of the Company's products, the value of the Warrant is recorded as a reduction in the Company's net revenues to the extent such value does not exceed net revenues from pertinent sales to Comcast. (See Note 13, "Warrants," of the Notes to our Condensed Consolidated Financial Statements for additional information).

As a result of the continued uncertainty regarding the timing of our customers' investment decisions, we have implemented restructuring plans, including our 2017 and 2018 restructuring plans, to better align the Company's resources and strategic goals, while simultaneously implementing an extensive Company-wide expense control program. (See Note 8, "Restructuring and Related Charges" of the Notes to our Consolidated Financial Statements for additional information).

Our aggregate balance of cash and cash equivalents as of June 29, 2018 was $54.1 million and during the six months ended June 29, 2018, we generated $3.2 million of cash from our operating activities. We also entered into a line of credit with Silicon Valley Bank in September 2017. We expect that our current sources of liquidity will provide us adequate liquidity based on our current plan for the next twelve months.

CRITICAL ACCOUNTING POLICIES, JUDGMENTS AND ESTIMATES

Our unaudited condensed consolidated financial statements and the related notes included elsewhere in this report are prepared in accordance with U.S. GAAP. The preparation of these unaudited condensed consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Our critical accounting policies, judgments and estimates are disclosed in in our 2017 Annual Report on Form 10-K, as filed with the SEC. There have been no significant changes to these policies during the six months ended June 29, 2018 other than those disclosed in Note 2 to the Condensed Consolidated Financial Statements in Item 1.

ACCOUNTING PRONOUNCEMENTS

For a summary of recent accounting pronouncements applicable to our condensed consolidated financial statements, see Note 2 to the Condensed Consolidated Financial Statements in Item 1, which is incorporated herein by reference.

Table of Contents

RESULTS OF OPERATIONS

Net Revenue

The following table presents the breakdown of revenue by segment for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Segment:								
Video	$79,208	$73,379	$5,829	8 %	$150,956	$147,721	$3,235	2 %
Cable Access	20,236	8,936	11,300	126 %	38,726	17,537	21,189	121 %
Total segment revenue	99,444	82,315	17,129	21 %	189,682	165,258	24,424	15 %
Amortization of warrants	(284)	—	$(284)	—	(395)	—	$(395)	—
Total net revenue	99,160	82,315	$16,845	20 %	189,287	165,258	$24,029	15 %
Segment revenue as a % of total segment revenue:								
Video	80 %	89 %			80 %	89 %		
Cable Access	20 %	11 %			20 %	11 %		

The following table presents the breakdown of revenue by geographical region for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Geography:								
Americas	$52,918	$40,611	$12,307	30 %	$101,774	$78,517	$23,257	30 %
EMEA	31,676	24,953	6,723	27 %	54,878	50,392	4,486	9 %
APAC	14,566	16,751	(2,185)	(13)%	32,635	36,349	(3,714)	(10)%
Total net revenue	$99,160	$82,315	$16,845	20 %	$189,287	$165,258	$24,029	15 %
Regional revenue as a % of total net revenue:								
Americas	53 %	49 %			54 %	48 %		
EMEA	32 %	30 %			29 %	30 %		
APAC	15 %	21 %			17 %	22 %		

Our Video segment net revenue increased 8% in the three months ended June 29, 2018, compared to the corresponding period in 2017, due to a $5.6 million increase in Video product revenue and a $0.2 million increase in Video service revenue. Our Video segment net revenue increased 2% in the six months ended June 29, 2018, compared to the corresponding period in 2017, due to a $7.5 million increase in Video product revenue, offset by a $4.3 million decrease in Video service revenue. The increases in our Video segment revenue in the three and six months ended June 30, 2018, were primarily due to improved demand and competitive success across almost all of our video product lines particularly software and SaaS. The decrease in our Video service revenue in the six months ended June 29, 2018 was primarily due to reduced activity in connection with SaaS deployments and timing of renewals of certain support agreements.

Our Cable Access segment net revenue increased 126% and 121% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017. The increases were primarily due to an increase in delivery of software and services for our CableOS solutions.

Net revenue in the Americas increased 30% in each of three and six months ended June 29, 2018, compared to the corresponding periods in 2017, due to increases in both service provider and broadcast and media demand for our live and premium quality OTT solutions.

Table of Contents

EMEA net revenue increased 27% and 9% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017, due to increased investment in our live and premium quality OTT software solutions for the delivery of new IP-based video services in both our service provider and broadcast and media customer verticals.

APAC net revenue decreased 13% and 10% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017, primarily due to softer demand from both our service provider and broadcast and media customers for our Video and Cable Access products, offset in part by an increase in service revenue.

Gross Profit

The following table presents the gross profit and gross profit as a percentage of net revenue ("gross margin") for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Gross profit	$51,603	$33,815	$17,788	53%	$98,786	$74,223	$24,563	33%
As a percentage of net revenue ("gross margin")	52.0 %	41.1 %	10.9 %		52.2 %	44.9 %	7.3 %	

Our gross margins are dependent upon, among other factors, the proportion of software sales, product mix, customer mix, product introduction costs, price reductions granted to customers and achievement of cost reductions.

Gross margin increased 10.9% and 7.3% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017, primarily due to a more favorable product mix with a shift towards higher-margin software-based products and higher margins on professional and support services.

Research and Development

The following table presents the research and development expenses and the expenses as a percentage of net revenue for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Research and development	$21,542	$27,055	$(5,513)	(20)%	$44,999	$51,937	$(6,938)	(13)%
As a percentage of net revenue	21.7 %	32.9 %			23.8 %	31.4 %		

Our research and development expenses consist primarily of employee salaries and related expenses, contractors and outside consultants, supplies and materials, equipment depreciation and facilities costs, all associated with the design and development of new products and enhancements of existing products.

Research and development expenses in the three and six months ended June 29, 2018 decreased 20% and 13%, respectively, compared to the corresponding periods in 2017, primarily due to lower employee compensation costs due to headcount reduction and lower utilization of third-party engineering services as the Company continues the process of transforming its research and development activities from capital intensive hardware development to predominantly software development. During the three months ended June 29, 2018, stock-based compensation expense was lower compared to the corresponding period in 2017 due to the timing of certain grants.

Table of Contents

Selling, General and Administrative

The following table presents the selling, general and administrative expenses and the expenses as a percentage of net revenue for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Selling, general and administrative	$27,988	$32,625	$(4,637)	(14)%	$59,151	$67,256	$(8,105)	(12)%
As a percentage of net revenue	28.2 %	39.6 %			31.2 %	40.7 %		

Selling, general and administrative expenses in the three months ended June 29, 2018 decreased 14%, compared to the corresponding period in 2017, primarily due to lower employee compensation costs due to headcount reductions, lower stock-based compensation expense due to timing of certain grants, recovery of certain previously expensed bad debts and lower travel and other discretionary costs due to cost management efforts throughout the Company.

Selling, general and administrative expenses in the six months ended June 29, 2018 decreased 12%, compared to the corresponding period in 2017, primarily due to lower employee compensation costs due to headcount reductions, recovery of certain previously expensed bad debts and lower travel and other discretionary costs due to cost management efforts throughout the Company.

Segment Operating Income (Loss)

The following table presents a breakdown of operating income (loss) by segment for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Video	6,239	$(8,947)	$15,186	(170)%	$8,234	$(14,783)	$23,017	(156)%
Cable Access	540	(7,411)	7,951	(107)%	(973)	(13,491)	12,518	(93)%
Total segment operating income (loss)	$6,779	$(16,358)	$23,137	(141)%	$7,261	$(28,274)	$35,535	(126)%
Segment operating income (loss) as a % of segment revenue (“operating margin”):								
Video	7.9 %	(12.2)%	20.1 %		5.5 %	(10.0)%	15.5 %	
Cable Access	2.7 %	(82.9)%	85.6 %		(2.5)%	(76.9)%	74.4 %	

The operating margin for the Video segment increased 20.1% and 15.5% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017, primarily due to better margins as a result of a more favorable product mix, lower operating expenses due to headcount reductions and lower other discretionary costs due to cost management efforts throughout the Company. This increase was partially offset by a decrease in margin due to the change in methodology for allocating professional services revenue between segments in the fourth quarter of 2017.

The operating margin for the Cable Access segment increased 85.6% and 74.4% in the three and six months ended June 29, 2018, respectively, compared to the corresponding periods in 2017, primarily due to higher margin on sale of both software and professional services. The change in methodology for allocating professional services revenue between segments in the fourth quarter of 2017 also contributed to the increase in Cable Access margins in the three and six months ended June 29, 2018, compared to the corresponding periods a year ago.

The Company has historically employed an aggregate allocation methodology based on total revenues to attribute professional services revenue and sales expenses between its Video and Cable Access segments. Beginning in the fourth quarter of 2017, the Company prospectively changed to a more precise attribution methodology as the activities of selling and supporting the CableOS solution have become increasingly distinct from those of Video solutions. The impact of making this change in the

Table of Contents

three and six months ended June 30, 2017 compared to the Company’s historical approach was an increase in operating loss of $2.1 million and $3.2 million, respectively, from the Video segment and a corresponding decrease in operating loss of the Cable Access segment. The Company believes that the updated allocation methodology will provide greater clarity regarding the operating metrics of the Video and Cable Access business segments.

The following table presents a reconciliation of total segment operating income (loss) to consolidated loss before income taxes (in thousands):

	Three months ended		Six months ended	
	June 29, 2018	June 30, 2017	June 29, 2018	June 30, 2017
Total segment operating income (loss)	$6,779	$(16,358)	$7,261	$(28,274)
Amortization of warrants	(284)	—	(395)	—
Unallocated corporate expenses	(746)	(4,853)	(2,588)	(8,775)
Stock-based compensation	(3,012)	(4,136)	(8,769)	(7,387)
Amortization of intangibles	(2,095)	(2,075)	(4,194)	(4,144)
Income (loss) from operations	642	(27,422)	(8,685)	(48,580)
Non-operating expense, net	(2,664)	(3,499)	(5,953)	(6,600)
Loss before income taxes	$(2,022)	$(30,921)	$(14,638)	$(55,180)

Unallocated Corporate Expenses

Together with amortization of intangibles and stock-based compensation, we do not allocate restructuring and related charges, TVN acquisition- and integration-related costs, and certain other non-recurring charges to the operating income for each segment because our management does not include this information in the measurement of the performance of the operating segments.

Amortization of Intangibles

The following table presents the amortization of intangible assets charged to operating expenses and the expense as a percentage of net revenue for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended			Six months ended		
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17	June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD
Amortization of intangibles	$800	$780	$20 3%	$1,604	$1,554	$50 3%
As a percentage of net revenue	0.8 %	0.9 %		0.8 %	0.9 %	

The amortization of intangibles expense in the three and six months ended June 29, 2018 remained relatively flat compared to the corresponding periods in 2017.

Table of Contents

Restructuring and related charges

We have implemented certain restructuring plans in the past few years. The goal of these plans is to bring operational expenses to appropriate levels relative to our net revenues, while simultaneously implementing extensive company-wide expense control programs.

The restructuring and related charges are included in “Cost of revenue” and “Operating expenses-restructuring and related charges” in the Condensed Consolidated Statement of Operations. The following table summarizes the restructuring and related charges (in thousands):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17	
Restructuring and related charges in:								
Cost of revenue	$115	$278	$(163)	(59)%	$877	$786	$91	12 %
Operating expenses-Restructuring and related charges	631	777	(146)	(19)%	1,717	2,056	(339)	16 %
Total restructuring and related charges	$746	$1,055	$(309)	(29)%	$2,594	$2,842	$(248)	(9)%

Restructuring and related charges in the three and six months ended June 29, 2018 decreased by 29% and 9%, respectively, compared to the corresponding periods in 2017, primarily due to higher TVN VDP costs recorded in the three and six months ended June 30, 2017, offset in part by severance and employee benefit costs recorded under the Harmonic 2018 Restructuring Plan. See Note 8, “Restructuring and Related Charges,” of the notes to our Condensed Consolidated Financial Statements for details on each of our restructuring plans.

Interest Expense, Net

Interest expense, net was $2.9 million and $2.7 million for the three months ended June 29, 2018 and June 30, 2017, respectively. Interest expense, net was $5.6 million and $5.3 million for the six months ended June 29, 2018 and June 30, 2017, respectively. Interest expense, net increased in the three and six months ended June 29, 2018, compared to the corresponding periods in 2017, primarily due to higher amortization of debt discount and issuance costs for the Notes issued in December 2015.

Other Income (Expense), Net

Other income (expense), net was $0.2 million and $(0.8) million for the three months ended June 29, 2018 and June 30, 2017, respectively. Other expense, net was $0.3 million and $1.3 million for the six months ended June 29, 2018 and June 30, 2017, respectively. The increase in Other income during the three and six months ended June 29, 2018 compared to the corresponding period in 2017 was primarily due to interest income earned on recovery of previously expensed bad debts and gain on change in fair valuation of equity investment.

Our other income (expense), net is primarily comprised of foreign exchange gains and losses on cash, accounts receivable and intercompany balances denominated in currencies other than the functional currency of the reporting entity. Our foreign currency exposure is primarily driven by the fluctuations in the foreign currency exchanges rates of the Euro, British pound, Japanese yen and Israeli shekel.

To mitigate the volatility related to fluctuations in foreign exchange rates, we enter into various foreign currency forward contracts. See “Foreign Currency Exchange Risk” under Item 3 of this Quarterly Report on Form 10-Q for additional information.

Table of Contents

Income Taxes

The following table presents the provision for (benefit from) income taxes and the effective income tax rate for the three and six months ended June 29, 2018 and June 30, 2017 (in thousands, except percentages):

	Three months ended				Six months ended			
	June 29, 2018	June 30, 2017	Q2 FY18 vs Q2 FY17		June 29, 2018	June 30, 2017	Q2 FY18 YTD vs Q2 FY17 YTD	
Provision for (benefit from) income taxes	$891	$579	$312	54%	$1,969	$347	$1,622	467%
Effective income tax rate	(44.1)%	(1.9)%			(13.5)%	(0.6)%		

Our effective tax rate generally differs from the U.S. federal statutory rate of 21% due to favorable tax rates associated with certain earnings from our operations in lower tax jurisdictions throughout the world. In addition, our effective tax rates vary in each period primarily due to specific one-time, discrete items that affected the tax rate in the respective period.

Our effective income tax rate of (13.5)% for the six months ended June 29, 2018 was different from the U.S. federal statutory rate of 21%, primarily due to our geographical income mix and favorable tax rates associated with certain earnings from operations in lower-tax jurisdictions, the increase in the valuation allowance against U.S. federal, California and other state deferred tax assets, detriment from non-deductible stock-based compensation, and the net of various discrete tax adjustments. For the six months ended June 29, 2018, the discrete adjustments to our tax expense were primarily withholding taxes.

Our effective income tax rate of (0.6)% for the six months ended June 30, 2017 was different from the then-effective U.S. federal statutory rate of 35%, primarily due to our geographical income mix and favorable tax rates associated with certain earnings from operations in lower-tax jurisdictions, partially offset by the increase in the valuation allowance against U.S. federal, California and other state deferred tax assets and detriment from non-deductible stock-based compensation. In addition, in the first quarter of 2017, we were able to recognize a one-time tax benefit of approximately $1.2 million as a result of the merger of our two subsidiaries in Israel which was approved by the Israeli government in the first quarter of 2017. For the six months ended June 30, 2017, the discrete adjustments to our tax expense were primarily withholding taxes and the accrual of interest on uncertain tax positions.

Liquidity and Capital Resources

As of June 29, 2018, our principal sources of liquidity consisted of cash and cash equivalents of $54.1 million, net accounts receivable of $82.6 million, our $15 million line of credit with Silicon Valley Bank, described in more detail below, and financing from French government agencies. As of June 29, 2018, we had $128.3 million in aggregate principal amount of convertible senior notes outstanding (“Notes”), which are due on December 1, 2020. The Notes bear interest at a fixed rate of 4.00% per year, payable semiannually in arrears on June 1 and December 1 of each year. We also had debts with French government agencies and to a lesser extent, with other financial institutions, primarily in France, in the aggregate of $16.0 million at June 29, 2018.

Our cash and cash equivalents of $54.1 million as of June 29, 2018 consisted of bank deposits held throughout the world, of which $41.9 million of the cash and cash equivalents balance was held outside of U.S. At present, such foreign funds are considered to be indefinitely reinvested in foreign countries to the extent of indefinitely reinvested foreign earnings. In the event funds from foreign operations are needed to fund cash needs in the United States and if U.S. taxes have not already been previously accrued, we may be required to accrue and pay additional U.S. and foreign withholding taxes in order to repatriate these funds.

Our principal uses of cash will include repayments of debts and related interest, purchases of inventory, payroll and other operating expenses related to the development, marketing of our products, purchases of property and equipment and other contractual obligations for the foreseeable future. We believe that our cash and cash equivalents of $54.1 million at June 29, 2018 will be sufficient to fund our principal uses of cash for at least the next 12 months. However, we may need to raise additional funds to fund our operations, to take advantage of unanticipated strategic opportunities or to strengthen our financial position. In the future, we may enter into other arrangements for potential investments in, or acquisitions of, complementary businesses, services or technologies, which could require us to seek additional equity or debt financing. Additional funds may not be available on terms favorable to us or at all.

Table of Contents

On September 27, 2017, we entered into a Loan and Security Agreement (the “Loan Agreement”) with Silicon Valley Bank (the “Bank”). The Loan Agreement provides for a secured revolving credit facility in an aggregate principal amount of up to $15.0 million. Under the terms of the Loan Agreement, the principal amount of loans, plus the face amount of any outstanding letters of credit, at any time cannot exceed up to 85% of our eligible receivables. Under the terms of the Loan Agreement, we may also request letters of credit from the Bank. The face value of any outstanding letters of credit reduce the amount otherwise available under the revolving credit facility. Loans under the Loan Agreement will bear interest at our option, and subject to certain conditions, at an annual rate of either a prime rate or a LIBOR rate plus an applicable margin of 2.25%. There will be no applicable margin for prime rate advances when we are in compliance with the liquidity requirement of at least $20.0 million in the aggregate of consolidated cash plus availability under the Loan Agreement (the “Liquidity Requirement”) and a 0.25% margin for prime rate advances when we are not in compliance with the Liquidity Requirement. We may not request LIBOR advances when not in compliance with the Liquidity Requirement. Interest on each advance is due and payable monthly and the principal balance is due at maturity. Our obligations under the revolving credit facility are secured by a security interest on substantially all of its assets, excluding intellectual property. The Loan Agreement contains customary affirmative and negative covenants. We must comply with financial covenants requiring maintaining (i) a minimum short-term asset to short-term liabilities ratio and (ii) minimum adjusted EBITDA, in the amounts and for the periods as set forth in the Loan Agreement. We must also maintain a minimum liquidity amount, comprised of unrestricted cash held at accounts with the Bank plus proceeds available to be drawn under the Loan Agreement, equal to $10.0 million at all times. As of June 29, 2018, we were in compliance with the covenants under the Loan Agreement.

As of June 29, 2018, the Company committed $2.4 million towards security for letters of credit issued under the Loan Agreement. There were no cash borrowings under the Loan Agreement as of June 29, 2018.

The table below sets forth selected cash flow data for the periods presented (in thousands):

	Six months ended	
	June 29, 2018	June 30, 2017
Net cash provided by (used in):		
Operating activities	$3,248	$2,614
Investing activities	(3,181)	955
Financing activities	(3,864)	(7,095)
Effect of foreign exchange rate changes on cash, cash equivalents and restricted cash	(588)	935
Net decrease in cash, cash equivalents and restricted cash	$(4,385)	$(2,591)

Operating Activities

Net cash provided by operations increased $0.6 million in the six months ended June 29, 2018, compared to the corresponding period in 2017, primarily due to a decrease in net loss, after adjustments for non-cash items, offset in part by cash being used for our working capital needs.

We expect that cash provided by or used in operating activities may fluctuate in future periods as a result of a number of factors, including fluctuations in our operating results, shipment linearity, accounts receivable collections performance, inventory and supply chain management, income tax reserves adjustments, and the timing and amount of compensation and other payments.

Investing Activities

Net cash used in investing activities increased $4.1 million in the six months ended June 29, 2018, compared to the corresponding period in 2017, primarily due to a decrease in proceeds from sales and maturities of short-term investments of $6.9 million, offset by a decrease in purchases of property and equipment of $2.8 million.

Financing Activities

Net cash used in financing activities decreased $3.2 million in the six months ended June 29, 2018, compared to the corresponding period in 2017, primarily due to lower payment of tax withholding obligations related to net share settlements of restricted stock units.

42

Table of Contents

Contractual Obligations and Commitments

Future payments under contractual obligations and other commercial commitments, as of June 29, 2018 are as follows (in thousands):

	Payments due in each fiscal year				
	Total Amounts Committed	2018 (remaining six months)	2019 and 2020	2021 and 2022	Thereafter
Convertible debt	$128,250	$ —	$128,250	$—	$ —
Interest on convertible debt	12,825	2,565	10,260	—	—
Other debts	15,482	864	13,566	954	98
Capital Lease	559	395	141	23	—
Operating leases	42,400	6,505	19,799	5,338	10,758
Purchase commitments	38,697	27,163	9,640	1,894	—
TVN VDP Obligations	3,845	1,417	2,428	—	—
Avid litigation settlement fees	3,500	—	3,500	—	—
Total contractual obligations	$245,558	$ 38,909	$187,584	$8,209	$ 10,856
Other commercial commitments:					
Standby letters of credit	$2,644	$ 1,009	$1,635	$—	$ —
Total commercial commitments	$2,644	$ 1,009	$1,635	$—	$ —

Off-Balance Sheet Arrangements

We did not have any other off-balance sheet arrangements as of June 29, 2018.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact our operating results, financial position or liquidity due to adverse changes in market prices and rates. We are exposed to market risk because of changes in interest rates, foreign currency exchange rates, when other currencies held by our subsidiaries are measured against the U.S. dollar, and to changes in the value of financial instruments held by us.

Foreign Currency Exchange Risk

We market and sell our products and services through our direct sales force and indirect channel partners in North America, EMEA, APAC and Latin America. Accordingly, we are subject to exposure from adverse movements in foreign currency exchange rates, primarily the Euro, British pound, Israeli Shekel and Japanese yen. Our U.S. dollar functional subsidiaries, which accounted for approximately 95% of our consolidated net revenue in the six months ended June 29, 2018, recorded net billings denominated in foreign currencies of approximately 16% of their net billings in the six months of 2018, compared to 20% in the corresponding period in 2017. In addition, a portion of our operating expenses, primarily the cost of personnel to deliver technical support on our products and professional services, sales and sales support and research and development, are denominated in foreign currencies, primarily the Israeli shekel.

We use derivative instruments, primarily forward contracts, to manage exposures to foreign currency exchange rates and we do not enter into foreign currency forward contracts for trading purposes.

Derivatives Not Designated as Hedging Instruments (Balance Sheet Hedges)

We enter into forward currency contracts to hedge foreign currency denominated monetary assets and liabilities. These derivative instruments are marked to market through earnings each accounting period and mature generally within three months. Changes in the fair value of these foreign currency forward contracts are recognized in “Other income (expense), net” in the Condensed Consolidated Statement of Operations and are largely offset by the changes in the fair value of the underlying assets or liabilities being hedged.

Table of Contents

The U.S. dollar equivalents of all outstanding notional amounts of foreign currency forward contracts, including the Euro, British pound, Israeli shekel and Japanese yen, are summarized as follows (in thousands):

	June 29, 2018	December 31, 2017
Derivatives not designated as hedging instruments:		
Purchase	$24,743	$ 12,875
Sell	$1,658	$ 1,509

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our outstanding debt arrangements with variable rate interests. The aggregate debt balance of such instruments at June 29, 2018 was $16.0 million, of which $0.6 million relates to obligations under capital leases with fixed interest rates. The remaining $15.4 million are debt instruments primarily financed by French government agencies, and to a lesser extent, term loans from other financing institutions. These debt instruments have maturities ranging from three to eight years, with expiries ranging from 2017 through 2023. A majority of the loans are tied to the 1 month EURIBOR rate plus spread. See Note 9, “Convertible notes, Other Debts and Capital Leases” of the notes to our Condensed Consolidated Financial Statements for additional information. As of June 29, 2018, a hypothetical 1.0% increase in market interest rates on our debts subject to variable interest rate fluctuations would increase our interest expense by approximately $0.2 million annually.

As of June 29, 2018, we had $128.3 million aggregate principal amount of the Notes outstanding, which have a fixed 4.0% coupon rate.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures

We maintain “disclosure controls and procedures,” as such term is defined in Rule 13a-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, and not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Form 10-Q, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

Our Chief Executive Officer and Chief Financial Officer evaluated the changes in our internal control over financial reporting that occurred during the quarterly period covered by this Form 10-Q. Based on their evaluation, it is concluded that there had been no change in our internal control over financial reporting during the quarter ended June 29, 2018 that have materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Table of Contents

PART II
OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we are involved in lawsuits as well as subject to various legal proceedings, claims, threats of litigation, and investigations in the ordinary course of business, including claims of alleged infringement of third-party patents and other intellectual property rights, commercial, employment, and other matters. While certain matters to which we are a party may specify the damages claimed, such claims may not represent reasonably possible losses. Given the inherent uncertainties of litigation, the ultimate outcome of these matters cannot be predicted at this time, nor can the amount of possible loss or range of loss, if any, be reasonably estimated.

An unfavorable outcome on any litigation matters could require us to pay substantial damages, or, in connection with any intellectual property infringement claims, could require us to pay ongoing royalty payments or could prevent us from selling certain of our products. As a result, a settlement of, or an unfavorable outcome on, any of the matters referenced above or other litigation matters could have a material adverse effect on our business, operating results, financial condition and cash flows.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. From time to time, third parties have asserted, and may in the future assert, exclusive patent, copyright, trademark and other intellectual property rights against us or our customers. Such assertions arise in the normal course of our operations. The resolution of any such assertions and claims cannot be predicted with certainty.

Table of Contents

ITEM 1A. RISK FACTORS
We depend on cable, satellite and telco, and broadcast and media industry capital spending for our revenue and any material decrease or delay in capital spending in any of these industries would negatively impact our operating results, financial condition and cash flows.

Our revenue has been derived from worldwide sales to service providers and broadcast and media companies, as well as, more recently, emerging streaming media companies. We expect that these markets will provide our revenue for the foreseeable future. Demand for our products will depend on the magnitude and timing of capital spending by customers in each of these markets for the purpose of creating, expanding or upgrading their systems. These capital spending patterns are dependent on a variety of factors, including:

• the impact of general economic conditions, actual and projected;

• access to financing;

• annual capital spending budget cycles of each of the industries we serve;

• the impact of industry consolidation;

• customers suspending or reducing capital spending in anticipation of: (i) new standards, such as HEVC and DOCSIS 3.1; (ii) industry trends and technology shifts, such as virtualization, and (iii) new products, such as products based on our VOS software platform or the CCAP architecture, such as CableOS;

• federal, state, local and foreign government regulation of telecommunications, television broadcasting and streaming media;

• overall demand for communication services and consumer acceptance of new video and data technologies and services;

• competitive pressures, including pricing pressures;

• the impact of fluctuations in currency exchange rates; and

• discretionary end-user customer spending patterns.

In the past, specific factors contributing to reduced capital spending have included:

• weak or uncertain economic and financial conditions in the U.S. or one or more international markets;

• uncertainty related to development of digital video industry standards;

• delays in evaluations of new services, new standards and systems architectures by many operators;

• emphasis by operators on generating revenue from existing customers, rather than from new customers, through construction, expansion or upgrades;

• a reduction in the amount of capital available to finance projects of our customers and potential customers;

• proposed and completed business combinations and divestitures by our customers and the length of regulatory review of each;

• completion of a new system or significant expansion or upgrade to a system; and

• bankruptcies and financial restructuring of major customers.

In the past, adverse economic conditions in one or more of the geographies in which we offer our products have adversely affected our customers' capital spending in those geographies and, as a result, our business. During challenging economic times, and in tight credit markets, many customers may delay or reduce capital expenditures. This could result in reductions in revenue from our products, longer sales cycles, difficulties in collection of accounts receivable, slower adoption of new technologies and increased price competition. If global economic and market conditions, or economic conditions in the U.S., Europe or other key markets, deteriorate, we could experience a material and adverse effect on our business, results of operations, financial condition and cash flows. Additionally, since most of our international revenue is denominated in U.S. dollars, global economic and market conditions may impact currency exchange rates and cause our products to become relatively more expensive to customers in a particular country or region, which could lead to delayed or reduced capital spending in those countries or regions, thereby negatively impacting our business and financial condition.

In addition, industry consolidation has in the past constrained, and may in the future constrain or delay, capital spending by our customers. Further, if our product portfolio and product development plans do not position us well to capture an increased portion of the capital spending of customers in the markets on which we focus, our revenue may decline.

As a result of these capital spending issues, we may not be able to maintain or increase our revenue in the future, and our operating results, financial condition and cash flows could be materially and adversely affected.

The markets in which we operate are intensely competitive.

The markets for our products are extremely competitive and have been characterized by rapid technological change and declining average sales prices in the past. Our competitors in our Video business segment include vertically integrated system suppliers, such as Arris Group, Cisco Systems and Ericsson (which is in the process of finalizing the sale of a majority stake in its MediaKind video technology business to a private equity firm), and, in certain product lines, other companies including ATEME and Elemental Technologies (an Amazon Web Services company). With respect to production and playout products, competitors include Evertz Microsystems, EVS, Grass Valley (a Belden brand) and Imagine Communications. Our competitors in our Cable Access business include Arris, Casa Systems and Cisco Systems. In the OTT market, our competitors include internally developed technologies and solutions by companies such as Netflix, Facebook, Google and Microsoft, as well as end-to-end online video platforms such as Brightcove, who provide comprehensive OTT infrastructure solutions, some of which overlap with our products and services.

Many of our competitors are substantially larger, or as a result of consolidation activity have become larger, and have greater financial, technical, marketing and other resources than we have, and have been in operation longer than we have. Consolidation in the industry has led to the acquisition of a number of our historic competitors over the last several years. For example, Motorola Home, BigBand Networks and C-Cor were acquired by Arris; NDS and Scientific Atlanta were acquired by Cisco Systems; Envivio and Tandberg Television were acquired by Ericsson; Elemental Technologies was acquired by Amazon; and Miranda Technologies and Grass Valley were acquired by Belden Inc.

In addition, some of our larger competitors have more long-standing and established relationships with domestic and foreign customers. Many of these large enterprises are in a better position to withstand any significant reduction in capital spending by customers in our markets. They often have broader product lines and market focus, and may not be as susceptible to downturns in a particular market. These competitors may also be able to bundle their products together to meet the needs of a particular customer, and may be capable of delivering more complete solutions than we are able to provide. To the extent large enterprises that currently do not compete directly with us choose to enter our markets by acquisition or otherwise, competition would likely intensify.

Further, some of our competitors that have greater financial resources have offered, and in the future may offer, their products at lower prices than we offer for our competing products or on more attractive financing or payment terms, which has in the past caused, and may in the future cause, us to lose sales opportunities and the resulting revenue or to reduce our prices in response to that competition. Also, some competitors that are smaller than we are have engaged in, and may continue to engage in, aggressive price competition in order to gain customer traction and market share. Reductions in prices for any of our products could materially and adversely affect our operating margins and revenue.

Additionally, certain customers and potential customers have developed, and may continue to develop, their own solutions that may cause such customers or potential customers to not consider our product offerings or to displace our installed products with their own solutions. The growing availability of open source codecs and related software,

Table of Contents

as well as new server chipsets that incorporate encoding technology, has, in certain respects, lowered the barriers to entry for the video processing industry. The development of solutions by potential and existing customers and the reduction of the barriers to entry to enter the video processing industry could result in increased competition and adversely affect our results of operations and business.

If any of our competitors' products or technologies were to become the industry standard, our business could be seriously harmed. If our competitors are successful in bringing their products to market earlier than us, or if these products are more technologically capable than ours, our revenue could be materially and adversely affected.

We need to develop and introduce new and enhanced products in a timely manner to meet the needs of our customers and to remain competitive.

All of the markets we address are characterized by continuing technological advancement, changes in customer requirements and evolving industry standards. To compete successfully, we must continually design, develop, manufacture and sell new or enhanced products that provide increasingly higher levels of performance and reliability and meet our customers changing needs. However, we may not be successful in those efforts if, among other things, our products:

• are not cost effective;

• are not brought to market in a timely manner;

• are not in accordance with evolving industry standards;

• fail to meet market acceptance or customer requirements; or

• are ahead of the needs of their markets.

We are currently developing and marketing products based on the latest video compression standards, such as HEVC, which provides significantly greater compression efficiency, thereby making more bandwidth available to operators. At the same time, we continue to devote development resources to enhance the existing AVC/H.264 compression of our products, which many of our customers continue to require. There can be no assurance that these efforts will be successful in the near future, or at all, or that our competitors will not take significant market share in encoding or transcoding.

We continue to focus our development efforts on key product solutions in our Video and Cable Access businesses. Our VOS solution is a software-based, cloud-enabled platform that unifies the entire media processing chain, from ingest to delivery. We have launched a number of VOS-based product solutions and services, including Electra XVM, VOS Software Cluster (formerly VOS Cloud) and VOS360, and continue to develop and expand the capabilities of our VOS software platform. In our Cable Access business, we have launched and continue to develop our CableOS software-based CCAP systems.

Many of these products and initiatives are intended to integrate existing and new features and functions in response to shifts in customer demands in the relevant market, as well as to general technology trends (such as virtualized and cloud-based computing, and integrated QAM and CMTS functionality in software-based CCAP solutions) that we believe will significantly impact our industry. The success of these significant and costly development efforts will be predicated, for certain products and initiatives, on the timing of market adoption of the new standards on which the resulting products are based, and for other products, the timing of customer adoption of our products and solutions, as well as our ability to timely develop the features and capabilities of our products and solutions. If new standards or some of our new products are adopted later than we predict or not adopted at all, or if adoption occurs earlier than we are able to deliver the applicable products or functionality, we risk spending significant research and development time and dollars on products or features that may never achieve market acceptance or that miss the customer demand window and thus do not produce the revenue that a timely introduction would have likely produced.

If we fail to develop and market new and enhanced products on a timely basis, our operating results, financial condition and cash flows could be materially and adversely affected.

Table of Contents

Our CCAP-based product initiatives expose us to certain technology transition risks that may adversely impact our operating results, financial condition and cash flows.

In the last few years, the cable industry has begun to develop and promulgate the CCAP architecture for next-generation Cable Access solutions, which combines edge QAM and CMTS functions in a single system in order to combine resources for video and data delivery. We believe our CableOS software-based CCAP solutions, supporting centralized distributed Remote PHY or hybrid configurations, will significantly reduce cable headend costs and increase operational efficiency, and are an important step in cable operators' transition to all-IP networks. If we are unsuccessful in developing these capabilities in a timely manner, or are otherwise delayed in making such capabilities available to our customers, our business may be adversely impacted, particularly if our competitors develop and market fully compliant products before we do.

We believe CCAP-based solutions will, over time, replace and make obsolete current Cable Access-QAM solutions, including our Cable Access QAM products, as well as current CMTS solutions, which is a market our products have previously not addressed. If demand for our CCAP solutions is weaker than expected, or sales of our CCAP-based solutions do not adequately offset the continuing decline in demand we have experienced for our non-CCAP cable access products, our near and long-term operating results, financial condition and cash flows could be adversely impacted. Further, in September 2016 we granted Comcast a warrant (the "Warrant") to purchase shares of our common stock to further incentivize them to purchase our products and adopt our technologies, particularly our CableOS software-based CCAP solution. If Comcast does not adopt our CableOS solutions, or does so more slowly than we anticipate, we may be unable to realize the anticipated benefits of our relationship with Comcast and our business and operating results, financial condition and cash flows could be materially and adversely affected. Moreover, if a new or competitive architecture for next-generation Cable Access solutions is promulgated that renders our CCAP-based systems obsolete, our business may be adversely impacted.

The sales cycle for our CableOS solutions tends to be long. For cable operators, upgrading or expanding network infrastructure is complex and expensive, and investing in a CableOS solution is a significant strategic decision that may require considerable time to evaluate, test and qualify. Potential customers need to ensure our CableOS solution will interoperate with the various components of its existing network infrastructure, including third-party equipment, servers and software. In addition, since we are a relatively new entrant into the CMTS market, we need to demonstrate significant performance, functionality and/or cost advantages with our CableOS solutions that outweigh customer switching costs. If sales cycles are significantly longer than anticipated or we are otherwise unsuccessful in growing our CableOS sales, our operating results, financial condition and cash flows could be materially and adversely affected.

Our future growth depends on market acceptance of several broadband services, on the adoption of new broadband technologies, and on several other broadband industry trends.

Future demand for many of our products will depend significantly on the growing market acceptance of emerging broadband services, including digital video, VOD, Ultra HD, IP video services (particularly streaming to tablet computers, connected TVs and mobile devices) and very high-speed data services. The market demand for such emerging services is rapidly growing, with many custom or proprietary systems in use, which increases the challenge of delivering interoperable products intended to address the requirements of such services.

The effective delivery of these services will depend, in part, on a variety of new network architectures, standards and devices, such as:

• the adoption of cloud-native media processing architectures;

• the adoption of advanced video compression standards, such as next generation H.264 compression and HEVC;

• the CCAP architecture;

• fiber to the premises, or FTTP, networks designed to facilitate the delivery of video services by telcos;

• the greater use of protocols such as IP;

• the further adoption of bandwidth-optimization techniques, such as DOCSIS 3.0 and DOCSIS 3.1; and

49

Table of Contents

• the introduction of new consumer devices, such as advanced set-top boxes, DVRs and network DVRs, connected TVs, tablet computers, and a variety of smart phone mobile devices.

If adoption of these emerging services and/or technologies is not as widespread or as rapid as we expect, or if we are unable to develop new products based on these technologies on a timely basis, our operating results, financial condition and cash flows could be materially and adversely affected.

Furthermore, other technological, industry and regulatory trends and requirements may affect the growth of our business.
These trends and requirements include the following:

• convergence, whereby network operators bundle video, voice and data services to consumers, including mobile delivery options;

• the increasing availability of traditional broadcast video content and video-on-demand on the Internet;

• adoption of high-bandwidth technology, such as DOCSIS 3.x, next generation LTE and FTTP;

• the use of digital video by businesses, governments and educational institutions;

• efforts by regulators and governments in the U.S. and internationally to encourage the adoption of broadband and digital technologies, as well as to regulate broadband access and delivery;

• consumer interest in higher resolution video such as Ultra HD or retina-display technologies on mobile devices;

• the need to develop partnerships with other companies involved in video infrastructure workflow and broadband services;

• the continued adoption of the television viewing behaviors of consumers in developed economies by the growing middle class across emerging economies;

• the extent and nature of regulatory attitudes towards issues such as network neutrality, competition between operators, access by third parties to networks of other operators, local franchising requirements for telcos to offer video, and other new services, such as mobile video; and

• the outcome of disputes and negotiations between content owners and service providers regarding rights of service providers to store and distribute recorded broadcast content, which outcomes may drive adoption of one technology over another in some cases.

If we fail to recognize and respond to these trends, by timely developing products, features and services required by these trends, we are likely to lose revenue opportunities and our operating results, financial condition and cash flows could be materially and adversely affected.

We depend significantly on our international revenue and are subject to the risks associated with international operations, including those of our resellers, contract manufacturers and outsourcing partners, which may negatively affect our operating results.

Revenue derived from customers outside of the U.S. for the six months ended June 29, 2018 and June 30, 2017 represented approximately 54% and 62% of our revenue, respectively. Although no assurance can be given with respect to international sales growth in any one or more regions, we expect that international revenue will likely continue to represent, from year to year, a majority, and potentially increasing, percentage of our annual revenue for the foreseeable future. A significant percentage of our revenue is generated from sales to resellers, value-added resellers ("VARs") and systems integrators, particularly in emerging market countries. Furthermore, the majority of our employees are based in our international offices and locations, and most of our contract manufacturing occurs outside of the U.S. In addition, we outsource a portion of our research and development activities to certain third-party partners with development centers located in different countries, particularly Ukraine and India.

Table of Contents

Our international operations, the international operations of our resellers, contract manufacturers and outsourcing partners, and our efforts to maintain and increase revenue in international markets are subject to a number of risks, which are generally greater with respect to emerging market countries, including the following:

• growth and stability of the economy in one or more international regions;

• fluctuations in currency exchange rates;

• changes in foreign government regulations and telecommunications standards;

• import and export license requirements, tariffs, taxes, economic sanctions, contractual limitations and other trade barriers;

• our significant reliance on resellers and others to purchase and resell our products and solutions, particularly in emerging market countries;

• availability of credit, particularly in emerging market countries;

• longer collection periods and greater difficulty in enforcing contracts and collecting accounts receivable, especially from smaller customers and resellers, particularly in emerging market countries;

• compliance with the U.S. Foreign Corrupt Practices Act (the “FCPA”), the U.K. Bribery Act and/or similar anti-corruption and anti-bribery laws, particularly in emerging market countries;

• the burden of complying with a wide variety of foreign laws, treaties and technical standards;

• fulfilling “country of origin” requirements for our products for certain customers;

• difficulty in staffing and managing foreign operations;

• business and operational disruptions or delays caused by political, social and economic instability and unrest, including risks related to terrorist activity, particularly in emerging market countries (e.g., recent significant civil, political and economic disturbances in Ukraine);

• changes in economic policies by foreign governments, including the imposition and potential continued expansion of economic sanctions by the U.S. and the European Union on the Russian Federation;

• changes in diplomatic and trade relationships, including the imposition of new trade restrictions, trade protection measures, import or export requirements, trade embargoes and other trade barriers;

• any negative economic impacts resulting from the political environment in the U.S. or the U.K.’s referendum to exit the European Union; and

• business and economic disruptions and delays caused by outbreaks of disease, epidemics and potential pandemics.

We have certain international customers who are billed in their local currency, primarily the Euro, British pound and Japanese yen, which subjects us to foreign currency risk. In addition, a portion of our operating expenses relating to the cost of certain international employees, are denominated in foreign currencies, primarily the Israeli shekel, British pound, Euro, Singapore dollar, Chinese yuan and Indian rupee, although we do hedge against the Israeli shekel. Gains and losses on the conversion to U.S. dollars of accounts receivable, accounts payable and other monetary assets and liabilities arising from international operations may contribute to fluctuations in our operating results. Furthermore, payment cycles for international customers are typically longer than those for customers in the U.S. Unpredictable payment cycles could cause us to fail to meet or exceed the expectations of security analysts and investors for any given period.

Most of our international revenue is denominated in U.S. dollars, and fluctuations in currency exchange rates could cause our products to become relatively more expensive to customers in a particular country or region, leading to a reduction in revenue or profitability from sales in that country or region. The potential negative impact of a strong

Table of Contents

U.S. dollar on our business may be exacerbated by the significant devaluation of a number of foreign currencies. Also, if the U.S. dollar were to weaken against many foreign currencies, there can be no assurance that a weaker dollar would lead to growth in capital spending in foreign markets.

Our operations outside the U.S. also require us to comply with a number of U.S. and international regulations that prohibit improper payments or offers of payments to foreign governments and their officials and political parties for corrupt purposes. For example, our operations in countries outside the U.S. are subject to the FCPA and similar laws, including the U.K. Bribery Act. Our activities in certain emerging countries create the risk of unauthorized payments or offers of payments by one of our employees, consultants, sales agents or channel partners that could be in violation of various anti-corruption laws, even though these parties may not be under our control. Under the FCPA and U.K. Bribery Act, companies may be held liable for the corrupt actions taken by their directors, officers, employees, channel partners, sales agents, consultants, or other strategic or local partners or representatives. We have internal control policies and procedures with respect to FCPA compliance, have implemented FCPA training and compliance programs for our employees, and include in our agreements with resellers a requirement that those parties comply with the FCPA. However, we cannot provide assurances that our policies, procedures and programs will prevent violations of the FCPA or similar laws by our employees or agents, particularly in emerging market countries, and as we expand our international operations. Any such violation, even if prohibited by our policies, could result in criminal or civil sanctions against us.

The effect of one or more of these international risks could have a material and adverse effect on our business, financial condition, operating results and cash flows.

We purchase several key components, subassemblies and modules used in the manufacture or integration of our products from sole or limited sources, and we rely on contract manufacturers and other subcontractors.

Many components, subassemblies and modules necessary for the manufacture or integration of our products are obtained from a sole supplier or a limited group of suppliers. For example, we depend on two suppliers for certain video encoding chips which are incorporated into several products. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our reliance on contractors for manufacturing and installation of our products, involves several risks, including a potential inability to obtain an adequate supply of required components, subassemblies or modules; reduced control over costs, quality and timely delivery of components, subassemblies or modules; supplier discontinuation of components, subassemblies or modules we require; and timely installation of products. In addition, our financial results may be impacted by tariffs imposed by the U.S. on goods from other countries and tariffs imposed by other countries on U.S. goods, including the tariffs proposed in March 2018 by the U.S. government on various imports from China and by the Chinese government on certain U.S. goods, the scope and duration of which, if implemented, remain uncertain. If any such tariffs are imposed on products or components that we import, including those obtained from a sole supplier or a limited group of suppliers, we could experience reduced revenues or may have to raise our prices, either of which could have an adverse effect on our business, financial condition and operating results.

These risks could be heightened during a substantial economic slowdown, because our suppliers and subcontractors are more likely to experience adverse changes in their financial condition and operations during such a period. Further, these risks could materially and adversely affect our business if one of our sole sources, or a sole source of one of our suppliers or contract manufacturers, is adversely affected by a natural disaster. While we expend resources to qualify additional component sources, consolidation of suppliers and the small number of viable alternatives have limited the results of these efforts. Managing our supplier and contractor relationships is particularly difficult during time periods in which we introduce new products and during time periods in which demand for our products is increasing, especially if demand increases more quickly than we expect.

Plexus Services Corp., which manufactures our products at its facilities in Malaysia, currently serves as our primary contract manufacturer, and currently provides us with a majority, by dollar amount, of the products that we purchase from our contract manufacturers. Most of the products manufactured by our French and Israeli operations are outsourced to another third-party manufacturer in France and Israel, respectively. From time to time we assess our relationship with our contract manufacturers, and we do not generally maintain long-term agreements with any of our suppliers or contract manufacturers. Our agreement with Plexus has automatic annual renewals, unless prior notice is given by either party, and has been automatically renewed for a term expiring in October 2018.

Difficulties in managing relationships with any of our current contract manufacturers, particularly Plexus, that manufacture our products off-shore, or any of our suppliers of key components, subassemblies and modules used in

Table of Contents

our products, could impede our ability to meet our customers' requirements and adversely affect our operating results. An inability to obtain adequate and timely deliveries of our products or any materials used in our products, or the inability of any of our contract manufacturers to scale their production to meet demand, or any other circumstance that would require us to seek alternative sources of supply, could negatively affect our ability to ship our products on a timely basis, which could damage relationships with current and prospective customers and harm our business and materially and adversely affect our revenue and other operating results. Furthermore, if we fail to meet customers' supply expectations, our revenue would be adversely affected and we may lose sales opportunities, both short and long term, which could materially and adversely affect our business and our operating results, financial condition and cash flows. Increases, from time to time, in demand on our suppliers and subcontractors from our customers or from other parties have, on occasion, caused delays in the availability of certain components and products. In response, we may increase our inventories of certain components and products and expedite shipments of our products when necessary. These actions could increase our costs and could also increase our risk of holding obsolete or excess inventory, which, despite our use of a demand order fulfillment model, could materially and adversely affect our business, operating results, financial condition and cash flows.

The loss of one or more of our key customers, a failure to continue diversifying our customer base, or a decrease in the number of larger transactions could harm our business and our operating results.

Historically, a significant portion of our revenue has been derived from relatively few customers, due in part to the consolidation of media customers. Sales to our top 10 customers in the six months ended June 29, 2018 and June 30, 2017 accounted for approximately 36% and 25% of revenue, respectively. Although we have broadened our customer base by further penetrating new markets and expanding internationally, we expect to see continuing industry consolidation and customer concentration.

During the six months ended June 29, 2018, Comcast accounted for 14% of our net revenue. No customer accounted for more than 10% of our net revenue during the six months ended June 30, 2017. Further consolidation in the cable industry could lead to additional revenue concentration for us. The loss of any significant customer, or any material reduction in orders from any other significant customer, or our failure to qualify our new products with any significant customer could materially and adversely affect, either long term or in a particular quarter, our operating results, financial condition and cash flows. Further, if Comcast does not increase its adoption of our technologies or purchases of our products in connection with the Warrant we issued to them in September 2016, or does so more slowly than we anticipate, we may be unable to realize the anticipated benefits of the Warrant and our operating results, financial condition and cash flows could be materially and adversely effected.

In addition, we are involved in most quarters in one or more relatively large individual transactions. A decrease in the number of the relatively larger individual transactions in which we are involved in any quarter could materially and adversely affect our operating results for that quarter.

As a result of these and other factors, we may be unable to increase our revenues from some or all of the markets we address, or to do so profitably, and any failure to increase revenues and profits from these customers could materially and adversely affect our operating results, financial condition and cash flows.

We rely on resellers, value-added resellers and systems integrators for a significant portion of our revenue, and disruptions to, or our failure to develop and manage our relationships with these customers or the processes and procedures that support them could adversely affect our business.

We generate a significant percentage of our revenue through sales to resellers, VARs and systems integrators that assist us with fulfillment or installation obligations. We expect that these sales will continue to generate a significant percentage of our revenue in the future. Accordingly, our future success is highly dependent upon establishing and maintaining successful relationships with a variety of channel partners.

We generally have no long-term contracts or minimum purchase commitments with any of our reseller, VAR or system integrator customers, and our contracts with these parties do not prohibit them from purchasing or offering products or services that compete with ours. Our competitors may provide incentives to any of our reseller, VAR or systems integrator customers to favor their products or, in effect, to prevent or reduce sales of our products. Any of our reseller, VAR or systems integrator customers may independently choose not to purchase or offer our products. Many of our resellers, and some of our VARs and system integrators are small, are based in a variety of international locations, and may have relatively unsophisticated processes and limited financial resources to conduct their business. Any significant disruption of our sales to these customers, including as a result of the inability or

Table of Contents

unwillingness of these customers to continue purchasing our products, or their failure to properly manage their business with respect to the purchase of, and payment for, our products, or their ability to comply with our policies and procedures as well as applicable laws, could materially and adversely affect our business, operating results, financial condition and cash flows. In addition, our failure to continue to establish or maintain successful relationships with reseller, VAR and systems integrator customers could likewise materially and adversely affect our business, operating results, financial condition and cash flows.

We have made, and may continue to make, acquisitions, and any acquisition could disrupt our operations, cause dilution to our stockholders and materially and adversely affect our business, operating results, cash flows and financial condition.

As part of our business strategy, from time to time we have acquired, and we may continue to acquire, businesses, technologies, assets and product lines that we believe complement or expand our existing business. For example, in February 2016, we announced the closing of our acquisition of TVN, which is headquartered in Rennes, France. Acquisitions involve numerous risks, including the following:

• unanticipated costs or delays associated with an acquisition;

• difficulties in the assimilation and integration of acquired operations, technologies and/or products;

• potential disruption of our business and the diversion of management’s attention from the regular operations of the business during the acquisition process;

• the challenges of managing a larger and more geographically widespread operation and product portfolio after the closing of the acquisition;

• potential adverse effects on new and existing business relationships with suppliers, contract manufacturers, resellers, partners and customers;

• compliance with regulatory requirements, such as local employment regulations and organized labor in France;

• risks associated with entering markets in which we may have no or limited prior experience;

• the potential loss of key employees of acquired businesses and our own business as a result of integration;

• difficulties in bringing acquired products and businesses into compliance with applicable legal requirements in jurisdictions in which we operate and sell products;

• impact of known potential liabilities or unknown liabilities, including litigation and infringement claims, associated with companies we acquire;

• substantial charges for acquisition costs or for the amortization of certain purchased intangible assets, deferred stock compensation or similar items;

• substantial impairments to goodwill or intangible assets in the event that an acquisition proves to be less valuable than the price we paid for it;

• difficulties in establishing and maintaining uniform financial and other standards, controls, procedures and policies;

• delays in realizing, or failure to realize, the anticipated benefits of an acquisition; and

• the possibility that any acquisition may be viewed negatively by our customers or investors or the financial markets.

Competition within our industry for acquisitions of businesses, technologies, assets and product lines has been, and is likely to continue to be, intense. As such, even if we are able to identify an acquisition that we would like to consummate, we may not be able to complete the acquisition on commercially reasonable terms or because the

Table of Contents

target chooses to be acquired by another company. Furthermore, in the event that we are able to identify and consummate any future acquisitions, we may, in each of those acquisitions:

• issue equity securities which would dilute current stockholders' percentage ownership;

• incur substantial debt to finance the acquisition or assume substantial debt in the acquisition;

• incur significant acquisition-related expenses;

• assume substantial liabilities, contingent or otherwise; or

• expend significant cash.

These financing activities or expenditures could materially and adversely affect our operating results, cash flows and financial condition or the price of our common stock. Alternatively, due to difficulties in the capital or credit markets at the time, we may be unable to secure capital necessary to complete an acquisition on reasonable terms, or at all. Moreover, even if we were to obtain benefits from acquisitions in the form of increased revenue and earnings per share, there may be a delay between the time the expenses associated with an acquisition are incurred and the time we recognize such benefits.

In addition to the risks outlined above, if we are unable to successfully receive payment of any significant portion of TVN's existing French R&D tax credit receivables from the French tax authority as expected, or are unable to successfully apply for or otherwise obtain the financial benefit of new French R&D tax credits in future years, our ability to achieve the anticipated benefits of the acquisition as well as our business, operating results and financial condition could be adversely affected.

As of June 29, 2018, we had approximately $241.2 million of goodwill recorded on our balance sheet associated with prior acquisitions. In the event we determine that our goodwill is impaired, we would be required to write down all or a portion of such goodwill, which could result in a material non-cash charge to our results of operations in the period in which such write-down occurs.

If we are unable to successfully address one or more of these risks, our business, operating results, financial condition and cash flows could be materially and adversely affected.

We may not be able to effectively manage our operations.

In recent years, we have expanded our international operations significantly. For example, upon the closing of our acquisition of TVN on February 29, 2016, we added 438 employees, most of whom are based in France.

As of June 29, 2018, we had 777 employees in our international operations, representing approximately 67% of our worldwide workforce. Our ability to manage our business effectively in the future, including with respect to any future growth, our operation as both a hardware and increasingly software-centric business, the integration of any acquisition efforts such as our recent acquisition of TVN, and the breadth of our international operations, will require us to train, motivate and manage our employees successfully, to attract and integrate new employees into our overall operations, to retain key employees and to continue to improve and evolve our operational, financial and management systems. There can be no assurance that we will be successful in any of these efforts, and our failure to effectively manage our operations could have a material and adverse effect on our business, operating results, cash flows and financial condition.

We face risks associated with having outsourced engineering resources located in Ukraine.

We outsource a portion of our research and development activities for both our Video and Cable Access business segments to a third-party partner with engineering resources located in Ukraine. Political, social and economic instability and unrest or violence in Ukraine, including the ongoing conflict with Russian-backed separatists or conflict with the Russian Federation directly, could cause disruptions to the business and operations of our outsourcing partner, which could slow or delay the development work our partner is undertaking for us. Instability, unrest or conflict could limit or prevent our employees from traveling to, from, or within Ukraine to direct and coordinate our outsourced engineering teams, or cause us to shift all or portions of the development work occurring

Table of Contents

in Ukraine to other locations or countries. The resulting delays could negatively impact our product development efforts, operating results and our business.

In order to manage our growth, we must be successful in addressing management succession issues and attracting and retaining qualified personnel.

Our future success will depend, to a significant extent, on the ability of our management to operate effectively, both individually and as a group. We must successfully manage transition and replacement issues that may result from the departure or retirement of members of our executive management. We cannot provide assurances that changes of management personnel in the future would not cause disruption to operations or customer relationships or a decline in our operating results.

We are also dependent on our ability to retain and motivate our existing highly qualified personnel, in addition to attracting new highly qualified personnel. Competition for qualified management, technical and other personnel is often intense, particularly in Silicon Valley, Israel and Hong Kong where we have significant research and development activities, and we may not be successful in attracting and retaining such personnel. Competitors and others have in the past attempted, and are likely in the future to attempt, to recruit our employees. While our employees are required to sign standard agreements concerning confidentiality, non-solicitation and ownership of inventions, we generally do not have non-competition agreements with our personnel. The loss of the services of any of our key personnel, the inability to attract or retain highly qualified personnel in the future or delays in hiring such personnel, particularly senior management and engineers and other technical personnel, could negatively affect our business and operating results. Furthermore, a certain portion of our personnel in the U.S. is comprised of foreign nationals whose ability to work for us depends on obtaining the necessary visas. Our ability to hire and retain foreign nationals in the U.S., and their ability to remain and work in the U.S., is affected by various laws and regulations, including limitations on the availability of visas. Changes in U.S. laws or regulations affecting the availability of visas may adversely affect our ability to hire or retain key personnel and as a result may impair our operations.

We face risks associated with having facilities and employees located in Israel.

As of June 29, 2018, we maintained facilities in Israel with a total of 163 employees, or approximately 14% of our worldwide workforce. Our employees in Israel engage in a number of activities, for both our Video and Cable Access business segments, including research and development, product development, and supply chain management for certain product lines and sales activities.

As such, we are directly affected by the political, economic and military conditions affecting Israel. Any significant conflict involving Israel could have a direct effect on our business or that of our Israeli contract manufacturers, in the form of physical damage or injury, restrictions from traveling or reluctance to travel to from or within Israel by our Israeli and other employees or those of our subcontractors, or the loss of Israeli employees to active military duty. Most of our employees in Israel are currently obligated to perform annual reserve duty in the Israel Defense Forces, and approximately 9% of those employees were called for active military duty in 2017. In the event that more of our employees are called to active duty, certain of our research and development activities may be significantly delayed and adversely affected. Further, the interruption or curtailment of trade between Israel and its trading partners, as a result of terrorist attacks or hostilities, conflicts between Israel and any other Middle Eastern country or organization, or any other cause, could significantly harm our business. Additionally, current or future tensions or conflicts in the Middle East could materially and adversely affect our business, operating results, financial condition and cash flows.

Our operating results are likely to fluctuate significantly and, as a result, may fail to meet or exceed the expectations of securities analysts or investors, causing our stock price to decline.

Our operating results have fluctuated in the past and are likely to continue to fluctuate in the future, on an annual and a quarterly basis, as a result of several factors, many of which are outside of our control. Some of the factors that may cause these fluctuations include:

• the level and timing of capital spending of our customers in the U.S., Europe and in other markets;

• economic and financial conditions specific to each of the cable, satellite and telco, and broadcast and media industries, as well as general economic and financial market conditions, including any stemming

Table of Contents

from an unstable political environment in the United States or abroad as well as those resulting from regulatory, trade or tax policy changes from the Tax Cuts and Jobs Act that was enacted in December 2017 (the "TCJA")

• changes in market acceptance of and demand for our products or our customers' services or products;

• the timing and amount of orders, especially from large individual transactions and transactions with our significant customers;

• the mix of our products sold and the effect it has on gross margins;

• the timing of revenue recognition, including revenue recognition on sales arrangements and from transactions with significant service and support components, which may span several quarters;

• our transition to a software-as-a-service subscription model for our Video business, which may cause near-term declines in revenue;

• the timing of completion of our customers' projects;

• the length of each customer product upgrade cycle and the volume of purchases during the cycle;

• competitive market conditions, including pricing actions by our competitors;

• the level and mix of our domestic and international revenue;

• new product introductions by our competitors or by us;

• uncertainty in both the U.K. and the European Union due to the U.K.'s referendum to exit the European Union, which could adversely affect our results, financial condition and prospects;

• changes in domestic and international regulatory environments affecting our business;

• the evaluation of new services, new standards and system architectures by our customers;

• the cost and timely availability to us of components, subassemblies and modules;

• the mix of our customer base, by industry and size, and sales channels;

• changes in our operating and extraordinary expenses;

• the timing of acquisitions and dispositions by us and the financial impact of such transactions;

• impairment of our goodwill and intangibles;

• the impact of litigation, such as related litigation expenses and settlement costs;

• write-downs of inventory and investments;

• changes in our effective federal tax rate, including as a result of changes in our valuation allowance against our deferred tax assets, and changes in our effective state tax rates, including as a result of apportionment;

• changes to tax rules related to the deferral of foreign earnings and compliance with foreign tax rules;

• the impact of applicable accounting guidance on accounting for uncertainty in income taxes that requires us to establish reserves for uncertain tax positions and accrue potential tax penalties and interest; and

Table of Contents

• the impact of applicable accounting guidance on business combinations that requires us to record charges for certain acquisition related costs and expenses and generally to expense restructuring costs associated with a business combination subsequent to the acquisition date.

The timing of deployment of our products by our customers can be subject to a number of other risks, including the availability of skilled engineering and technical personnel, the availability of third-party equipment and services, our customers' ability to negotiate and enter into rights agreements with video content owners that provide our customers with the right to deliver certain video content, and our customers' need for local franchise and licensing approvals.

We often recognize a substantial portion of our quarterly revenue in the last month of the quarter. We establish our expenditure levels for product development and other operating expenses based on projected revenue levels for a specified period, and expenses are relatively fixed in the short term. Accordingly, even small variations in the timing of revenue, particularly from relatively large individual transactions, can cause significant fluctuations in operating results in a particular quarter.

As a result of these factors and other factors, our operating results in one or more future periods may fail to meet or exceed the expectations of securities analysts or investors. In that event, the trading price of our common stock would likely decline.

Fluctuations in our future effective tax rates could affect our future operating results, financial condition and cash flows.

We are required to periodically review our deferred tax assets and determine whether, based on available evidence, a valuation allowance is necessary. The realization of our deferred tax assets, which are predominantly in the U.S., is dependent upon the generation of sufficient U.S. and foreign taxable income in the future to offset these assets. Based on our evaluation, a history of operating losses in recent years has led to uncertainty with respect to our ability to realize certain of our net deferred tax assets, and as a result we recorded a net increase in valuation allowance of $9.0 million and $18.3 million in 2017 and 2016, respectively, against our U.S. net deferred tax assets. The increase in valuation allowance was offset partially by the release of $5.8 million of valuation allowance. The release of valuation allowance were associated with our foreign subsidiaries and a one-time benefit in 2017 of $2.6 million relating to the refund of alternative minimum tax credit carryforwards related to the TCJA.

The calculation of tax liabilities involves dealing with uncertainties in the application of complex global tax regulations. We recognize potential liabilities for anticipated tax audit issues in the U.S. and other tax jurisdictions based on our estimate of whether, and the extent to which, additional taxes will be due. In the event we determine that it is appropriate to create a reserve or increase an existing reserve for any such potential liabilities, the amount of the additional reserve is charged as an expense in the period in which it is determined. If payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary. If the estimate of tax liabilities proves to be less than the ultimate tax assessment for the applicable period, a further charge to expense in the period such short fall is determined would result. Either such charge to expense could have a material and adverse effect on our operating results for the applicable period.

We anticipated that due to our current international tax structure, our consolidated pre-tax income will continue to be subject to foreign tax at relatively lower tax rates when compared to the U.S. federal statutory tax rate and, as a consequence, our effective income tax rate is expected to be lower than the U.S. federal statutory rate.

Our future effective income tax rates could be adversely affected if tax authorities challenge our international tax structure or if the relative mix of U.S. and international income changes for any reason. Accordingly, there can be no assurance that our income tax rate will be less than the U.S. federal statutory rate in future periods.

On December 22, 2017, the U.S. Congress passed and the President signed into law the TCJA, which contains many significant changes to the U.S. tax laws. The consequences of these changes, including whether and how state, local and foreign jurisdictions will react to such changes, have not yet been determined. Changes in corporate tax rates, the realizability of the net deferred tax assets relating to our U.S. operations, the taxation of foreign earnings, and the deductibility of expenses contained in the TCJA or other tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges in the current or future taxable years, and could increase our future U.S. tax expense. Furthermore, changes to the taxation of undistributed foreign

Table of Contents

earnings could change our future intentions regarding reinvestment of such earnings. The foregoing items could have an adverse effect on our operating results, cash flow, or financial condition.

We or our customers may face intellectual property infringement claims from third parties.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry have extensive patent portfolios. Also, patent infringement claims and litigation by entities that purchase or control patents, but do not produce goods or services covered by the claims of such patents (so-called “non-practicing entities” or “NPEs”), have increased rapidly over the last decade or so. From time to time, third parties, including NPEs, have asserted, and may assert in the future, patent, copyright, trademark and other intellectual property rights against us or our customers. Our suppliers and their customers, including us, may have similar claims asserted against them. A number of third parties, including companies with greater financial and other resources than us, have asserted patent rights to technologies that are important to us.

Any intellectual property litigation, regardless of its outcome, could result in substantial expense and significant diversion of the efforts of our management and technical personnel. An adverse determination in any such proceeding could subject us to significant liabilities and temporary or permanent injunctions and require us to seek licenses from third parties or pay royalties that may be substantial. Furthermore, necessary licenses may not be available on terms satisfactory to us, or at all. An unfavorable outcome on any such litigation matter could require that we pay substantial damages, could require that we pay ongoing royalty payments, or could prohibit us from selling certain of our products. Any such outcome could have a material and adverse effect on our business, operating results, financial condition and cash flows.

Our suppliers and customers may have intellectual property claims relating to our products asserted against them. We have agreed to indemnify some of our suppliers and most of our customers for patent infringement relating to our products. The scope of this indemnity varies, but, in some instances, includes indemnification for damages and expenses (including reasonable attorney’s fees) incurred by the supplier or customer in connection with such claims. If a supplier or a customer seeks to enforce a claim for indemnification against us, we could incur significant costs defending such claim, the underlying claim or both. An adverse determination in either such proceeding could subject us to significant liabilities and have a material and adverse effect on our operating results, cash flows and financial condition.

We may be the subject of litigation which, if adversely determined, could harm our business and operating results.

We may be subject to claims arising in the normal course of business. The costs of defending any litigation, whether in cash expenses or in management time, could harm our business and materially and adversely affect our operating results and cash flows. An unfavorable outcome on any litigation matter could require that we pay substantial damages, or, in connection with any intellectual property infringement claims, could require that we pay ongoing royalty payments or prohibit us from selling certain of our products. In addition, we may decide to settle any litigation, which could cause us to incur significant settlement costs. A settlement or an unfavorable outcome on any litigation matter could have a material and adverse effect on our business, operating results, financial condition and cash flows.

We may sell one or more of our product lines, from time to time, as a result of our evaluation of our products and markets, and any such divestiture could adversely affect our continuing business and our expenses, revenues, results of operation, cash flows and financial position.

We periodically evaluate our various product lines and may, as a result, consider the divestiture of one or more of those product lines. We have sold product lines in the past, and any prior or future divestiture could adversely affect our continuing business and expenses, revenues, results of operations, cash flows and financial position.

Divestitures of product lines have inherent risks, including the expense of selling the product line, the possibility that any anticipated sale will not occur, delays in closing any sale, the risk of lower-than-expected proceeds from the sale of the divested business, unexpected costs associated with the separation of the business to be sold from the seller’s information technology and other operating systems, and potential post-closing claims for indemnification or breach of transition services obligations of the seller. Expected cost savings, which are offset by revenue losses from divested businesses, may also be difficult to achieve or maximize due to the seller’s fixed cost structure, and a seller

Table of Contents

may experience varying success in reducing fixed costs or transferring liabilities previously associated with the divested business.

We could be negatively affected as a result of a future proxy contest and the actions of activist stockholders.

If a proxy contest with respect to election of our directors is initiated in the future, or if other activist stockholder activities occur, our business could be adversely affected because:

• responding to a proxy contest and other actions by activist stockholders can be costly and time-consuming, disrupting our operations and diverting the attention of management and our employees;

• perceived uncertainties as to our future direction caused by activist activities may result in the loss of potential business opportunities, and may make it more difficult to attract and retain qualified personnel and business partners; and

• if individuals are elected to our Board with a specific agenda, it may adversely affect our ability to effectively and timely implement our strategic plans.

Our failure to adequately protect our proprietary rights and data may adversely affect us.

At June 29, 2018, we held 72 issued U.S. patents and 46 issued foreign patents, and had 94 patent applications pending. Although we attempt to protect our intellectual property rights through patents, trademarks, copyrights, licensing arrangements, maintaining certain technology as trade secrets and other measures, we can give no assurances that any patent, trademark, copyright or other intellectual property rights owned by us will not be invalidated, circumvented or challenged, that such intellectual property rights will provide competitive advantages to us, or that any of our pending or future patent applications will be issued with the scope of the claims sought by us, if at all. We can give no assurances that others will not develop technologies that are similar or superior to our technologies, duplicate our technologies or design around the patents that we own. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries in which we do business or may do business in the future.

We may enter into confidentiality or license agreements with our employees, consultants, and vendors and our customers, as needed, and generally limit access to, and distribution of, our proprietary information. Nevertheless, we cannot provide assurances that the steps taken by us will prevent misappropriation of our technology. In addition, we have taken in the past, and may take in the future, legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of management time and other resources, and could materially and adversely affect our business, operating results, financial condition and cash flows.

Our products include third-party technology and intellectual property, and our inability to acquire new technologies or use third-party technology in the future could harm our business.

In order to successfully develop and market certain of our planned products, we may be required to enter into technology development or licensing agreements with third parties. Although companies with technology useful to us are often willing to enter into technology development or licensing agreements with respect to such technology, we cannot provide assurances that such agreements may be negotiated on commercially reasonable terms, or at all. The failure to enter, or a delay in entering, into such technology development or licensing agreements, when necessary or desirable, could limit our ability to develop and market new products and could materially and adversely affect our business.

We incorporate certain third-party technologies, including software programs, into our products, and, as noted, intend to utilize additional third-party technologies in the future. In addition, the technologies that we license may not operate properly or as specified, and we may not be able to secure alternatives in a timely manner, either of which could harm our business. We could face delays in product releases until alternative technology can be identified, licensed or developed, and integrated into our products, if we are able to do so at all. These delays, or a failure to secure or develop adequate technology, could materially and adversely affect our business, operating results, financial condition and cash flows.

Table of Contents

Our use of open source software in some of our products may expose us to certain risks.

Some of our products contain software modules licensed for use from third-party authors under open source licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain of the open source licenses, be required to release the source code of our proprietary software to the public. This could allow our competitors to create similar products with lower development effort and in less time and ultimately could result in a loss of product sales for us.

Although we monitor our use of open source closely, it is possible our past, present or future use of open source has triggered or may trigger the foregoing requirements. Furthermore, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. In such event, we could be required to seek licenses from third parties in order to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished on a timely basis, any of which could materially and adversely affect our operating results, financial condition and cash flows.

We are subject to import and export control and trade and economic sanction laws and regulations that could subject us to liability or impair our ability to compete in international markets.

Our products are subject to U.S. export control laws, and may be exported outside the U.S. only with the required export license or through an export license exception, in most cases because we incorporate encryption technology into certain of our products. We are also subject to U.S. trade and economic sanction regulations which include prohibitions on the sale or supply of certain products and services to U.S. embargoed or sanctioned countries, governments, persons and entities. In addition, various countries regulate the import of certain technology and have enacted laws that could limit our ability to distribute our products, or could limit our customers' ability to implement our products, in those countries. Although we take precautions and have processes in place to prevent our products and services from being provided in violation of such laws, our products may have been in the past, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. If we fail to comply with these laws, we and certain of our employees could be subject to civil or criminal penalties, including the possible loss of export privileges, monetary penalties, and, in extreme cases, imprisonment of responsible employees for knowing and willful violations of these laws. Additionally, our business and operating results be adversely affected through penalties, reputational harm, loss of access to certain markets, or otherwise.

In addition, we may be subject to customs duties that could have a significant adverse impact on our operating results or, if we are able to pass on the related costs in any particular situation, would increase the cost of the related product to our customers. As a result, the future imposition of significant increases in the level of customs duties or the creation of import quotas on our products in Europe or in other jurisdictions, or any of the limitations on international sales described above, could have a material adverse effect on our business, operating results, financial condition and cash flows. Further, some of our customers in Europe have been, or are being, audited by local governmental authorities regarding the tariff classifications used for importation of our products. Import duties and tariffs vary by country and a different tariff classification for any of our products may result in higher duties or tariffs, which could have an adverse impact on our operating results and potentially increase the cost of the related products to our customers.

We may need additional capital in the future and may not be able to secure adequate funds at all or on terms acceptable to us.

We engage in the design, development and manufacture and sale of a variety of video and cable access products and system solutions, which has required, and will continue to require, significant research and development expenditures.

We believe that our existing cash of approximately $54.1 million at June 29, 2018 will satisfy our cash requirements for at least the next 12 months. However, we may need to raise additional funds to take advantage of presently unanticipated strategic opportunities, satisfy our other cash requirements from time to time, or strengthen our financial position. Our ability to raise funds may be adversely affected by a number of factors, including factors

Table of Contents

beyond our control, such as weakness in the economic conditions in markets in which we sell our products and continued uncertainty in financial, capital and credit markets. There can be no assurance that equity or debt financing will be available to us on reasonable terms, if at all, when and if it is needed.

We may raise additional financing through public or private equity offerings, debt financings, or corporate partnership or licensing arrangements. To the extent we raise additional capital by issuing equity securities or convertible debt, our stockholders may experience dilution. To the extent that we raise additional funds through collaboration and licensing arrangements, it may be necessary to relinquish some rights to our technologies or products, or grant licenses on terms that are not favorable to us. To the extent we raise capital through debt financing arrangements, we may be required to pledge assets or enter into covenants that could restrict our operations or our ability to incur further indebtedness and the interest on such debt may adversely affect our operating results.

If adequate capital is not available, or is not available on reasonable terms, when needed, we may not be able to take advantage of acquisition or other market opportunities, to timely develop new products, or to otherwise respond to competitive pressures.

Cybersecurity incidents, including data security breaches or computer viruses, could harm our business by disrupting our business operations, compromising our products and services, damaging our reputation or exposing us to liability.

Computer programmers may attempt to penetrate our network security, misappropriate our proprietary information or cause business interruptions. Because the techniques used by such computer programmers to access or sabotage networks change frequently and may not be recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. While we have invested in and continue to update our network security and cybersecurity infrastructure and systems, if our cybersecurity systems fail to protect against unauthorized access, sophisticated cyber-attacks, data protection breaches, computer viruses, denial-of-service attacks and similar disruptions from unauthorized tampering or human error, our ability to conduct our business effectively could be damaged in a number of ways, including:

• our intellectual property and other proprietary data could be stolen;

• our ability to manage and conduct our business operations could be seriously disrupted;

• defects and security vulnerabilities could be introduced into our product, software and SaaS offerings, thereby damaging the reputation and perceived reliability and security of our products; and

• personally identifiable data of our customers, employees and business partners could be compromised.

Should any of the above events occur, our reputation, competitive position and business could be significantly harmed, and we could be subject to claims for liability from customers, third parties and governmental authorities. Additionally, we could incur significant costs in order to upgrade our cybersecurity systems and remediate damages. Consequently, our business, operating results, financial condition and cash flows could be materially and adversely affected. In addition, our business operations utilize and rely upon numerous third party vendors, manufacturers, solution providers, partners and consultants, and any failure of such third parties’ cybersecurity measures could materially and adversely affect or disrupt our business.

Our operating results could be adversely affected by natural disasters affecting us or impacting our third-party manufacturers, suppliers, resellers or customers.

Our corporate headquarters is located in California, which is prone to earthquakes. We have employees, consultants and contractors located in regions and countries around the world. In the event that any of our business, sales or research and development centers or offices in the U.S. or internationally are adversely affected by an earthquake or by any other natural disaster, we may sustain damage to our operations and properties, which could cause a sustained interruption or loss of affected operations, and cause us to suffer significant financial losses.

We rely on third-party contract manufacturers for the production of our products. Any significant disruption in the business or operations of such manufacturers or of their or our suppliers could adversely impact our business. Our principal contract manufacturers and several of their and our suppliers and our resellers have operations in locations that are subject to natural disasters, such as severe weather, tsunamis, floods, fires and earthquakes, which could disrupt their operations and, in turn, our operations.

In addition, if there is a natural disaster in any of the locations in which our significant customers are located, we face the risk that our customers may incur losses or sustained business interruption, or both, which may materially impair their ability to continue their purchase of products from us. Accordingly, natural disaster in one of the geographies in which we, or our third-party manufacturers, their or our suppliers or our customers, operate could have a material and adverse effect on our business, operating results, cash flows and financial condition.

Our business and industry are subject to various laws and regulations that could adversely affect our business, operating results, cash flows and financial condition.

Our business and industry are regulated under various federal, state, local and international laws. For example, we are subject to environmental regulations such as the European Union's Waste Electrical and Electronic Equipment (WEEE) and Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directives and similar legislation enacted in other jurisdictions worldwide. Our failure to comply with these laws could result in our being directly or indirectly liable for costs, fines or penalties and third-party claims, and could jeopardize our ability to conduct business in such regions and countries. We expect that our operations will be affected by other new environmental laws and regulations on an ongoing basis. Although we cannot predict the ultimate impact of any such new laws and regulations, they would likely result in additional costs, and could require that we redesign or change how we manufacture our products, any of which could have a material and adverse effect on our operating results, financial condition and cash flows.

We are subject to the Sarbanes-Oxley Act of 2002 which, among other things, requires an annual review and evaluation of our internal control over financial reporting. If we conclude in future periods that our internal control over financial reporting is not effective or if our independent registered public accounting firm is unable to provide an unqualified attestation as of future year-ends, we may incur substantial additional costs in an effort to correct such problems, and investors may lose confidence in our financial statements, and our stock price may decrease in the short term, until we correct such problems, and perhaps in the long term, as well.

We are subject to requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 that require us to conduct research, disclose, and report whether or not our products contain certain conflict minerals sourced from the Democratic Republic of Congo or its surrounding countries. The implementation of these requirements could adversely affect the sourcing, availability, and pricing of the materials used in the manufacture of components used in our products. In addition, we may incur certain additional costs to comply with the disclosure requirements, including costs related to conducting diligence procedures to determine the sources of conflict minerals that may be used or necessary to the production of our products and, if applicable, potential changes to products, processes or sources of supply as a consequence of such verification activities. It is also possible that we may face reputational harm if we determine that certain of our products contain minerals not determined to be conflict-free and/or we are unable to alter our products, processes or sources of supply to avoid such materials.

Changes in telecommunications legislation and regulations in the U.S. and other countries could affect our sales and the revenue we are able to derive from our products. In particular, on December 14, 2017, the U.S. Federal Communications Commission (FCC) voted to repeal the "net neutrality" rules and return to a "light-touch" regulatory framework. However, the repeal has not yet taken effect and a number of parties have already stated their intent to appeal this order; thus, the future impact of such repeal and any challenge thereto remains uncertain. The rules were designed to ensure that all online content is treated the same by internet service providers and other companies that provide broadband services. Should the repeal of net neutrality rules take effect or regulations dealing with access by competitors to the networks of incumbent operators could slow or stop infrastructure and services investments or expansion by service providers. Increased regulation of our customers' pricing or service offerings could limit their investments and, consequently, revenue from our products. The impact of new or revised legislation or regulations could have a material adverse effect on our business, operating results, financial condition and cash flows.

Some anti-takeover provisions contained in our certificate of incorporation and bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

We have provisions in our certificate of incorporation and bylaws that could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our Board. These include provisions:

• authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;

• limiting the liability of, and providing indemnification to, our directors and officers;

• limiting the ability of our stockholders to call, and bring business before, special meetings;

• requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our Board;

• controlling the procedures for conducting and scheduling of Board and stockholder meetings; and

• providing the Board with the express power to postpone previously scheduled annual meetings and to cancel previously scheduled special meetings.

These provisions could delay hostile takeovers, changes in control of the Company or changes in our management. As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock. Any provision of our certificate of incorporation or bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

The nature of our business requires the application of complex revenue and expense recognition rules and the current legislative and regulatory environment affecting generally accepted accounting principles is uncertain. Significant changes in current principles could affect our financial statements going forward and changes in financial accounting standards or practices may cause adverse, unexpected financial reporting fluctuations and harm our operating results. The accounting rules and regulations that we must comply with are complex and subject to interpretation by the Financial Accounting Standards Board (the “FASB”), the SEC and various bodies formed to promulgate and interpret appropriate accounting principles. Recent actions and public comments from the FASB and the SEC have focused on the integrity of financial reporting and internal controls. In addition, many companies’ accounting policies are being subject to heightened scrutiny by regulators and the public. Further, the accounting rules and regulations are continually changing in ways that could materially impact our financial statements. For example, in May 2014, the FASB issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (“Topic 606”), as amended, which superseded nearly all existing revenue recognition guidance. We adopted the new revenue standard in our first quarter of 2018 using a modified retrospective approach with the cumulative effect of initially applying the new standard recognized at the date of initial application and providing certain additional disclosures. The adoption of the new revenue standard impacted the timing of recognition of software licenses with undelivered features and professional services revenue related to service contracts with acceptance terms, which has impacted our financial results.

The conditional conversion feature of our convertible senior notes, if triggered, may adversely affect our financial condition and operating results.

In December 2015, we issued $128.3 million aggregate principal amount of 4.00% convertible senior notes due 2020 (the “Notes”) through a private placement with a financial institution. The Notes bear interest at 4.00% per annum, which is payable semiannually in arrears on June 1 and December 1 of each year, commencing June 1, 2016. In the event the conditional conversion feature of the Notes is triggered, holders of the Notes will be entitled to convert the Notes at any time during specified periods at their option. If one or more holders elect to convert their Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the Notes, could have a material effect on our reported financial results.

Under Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments (such as the Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer’s economic interest cost. The effect of ASC 470-20 on the accounting for the Notes is that the equity component is required to be included in the additional paid-in capital section of stockholders’ equity on our consolidated balance sheet, and the value of the equity component would be treated as debt discount for purposes of accounting for the debt component of the Notes. As a result, we are required to record a greater amount of non-cash interest expense in current and future periods presented as a result of the amortization of the discounted carrying value of the Notes to their face amount over the term of the Notes. We may report lower net income in our financial results because ASC 470-20 will require interest to include both the current period’s amortization of the debt discount and the instrument’s non-convertible interest rate, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the Notes.

In addition, under certain circumstances, convertible debt instruments (such as the Notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the Notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the Notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method or circumstances would change such that we would no longer be permitted to use the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the Notes, our diluted earnings per share may be adversely affected.

Our common stock price, and therefore the price of our Notes, may be extremely volatile, and the value of an investment in our stock may decline.

Our common stock price has been highly volatile. We expect that this volatility will continue in the future due to factors such as:

• general market and economic conditions;

• actual or anticipated variations in operating results;

• increases or decreases in the general stock market or to the stock prices of technology companies;

• announcements of technological innovations, new products or new services by us or by our competitors or customers;

• changes in financial estimates or recommendations by stock market analysts regarding us or our competitors;

• announcements by us or our competitors of significant acquisitions, dispositions, strategic partnerships, joint ventures or capital commitments;

• announcements by our customers regarding end user market conditions and the status of existing and future infrastructure network deployments;

• additions or departures of key personnel; and

• future equity or debt offerings or our announcements of these offerings.

In addition, in recent years, the stock market in general, and The NASDAQ Stock Market and the securities of technology companies in particular, have experienced extreme price and volume fluctuations. These fluctuations have often been unrelated or disproportionate to the operating performance of individual companies. These broad

Table of Contents

market fluctuations have in the past, and may in the future, materially and adversely affect our stock price, regardless of our operating results. In these circumstances, investors may be unable to sell their shares of our common stock at or above their purchase price over the short term, or at all.

Our stock price may decline if additional shares are sold in the market or if analysts drop coverage of or downgrade our stock.

Future sales of substantial amounts of shares of our common stock by our existing stockholders in the public market, or the perception that these sales could occur, may cause the market price of our common stock to decline. In addition, we issue additional shares upon exercise of stock options, including under our 2002 Employee Stock Purchase Plan ("ESPP"), and in connection with grants of restricted stock units ("RSUs") on an ongoing basis. To the extent we do not elect to pay solely cash upon conversion of our Notes, we will also be required to issue additional shares of common stock upon conversion. Increased sales of our common stock in the market after exercise of outstanding stock options or grants of restricted stock units could exert downward pressure on our stock price. These sales also might make it more difficult for us to sell equity or equity-related securities in the future at a time and price we deem appropriate.

The trading market for our common stock relies in part on the availability of research and reports that third-party industry or securities analysts publish about us. If one or more of the analysts who do cover us downgrade our stock, our stock price may decline. If one or more of these analysts cease coverage of us, we could lose visibility in the market, which in turn could cause the liquidity of our stock and our stock price to decline.

Table of Contents

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Index
31.1	Section 302 Certification of Principal Executive Officer
31.2	Section 302 Certification of Principal Financial Officer
32.1*	Section 906 Certification of Principal Executive Officer
32.2*	Section 906 Certification of Principal Financial Officer
101	The following materials from Registrant’s Quarterly Report on Form 10-Q for the quarter ended June 29, 2018, formatted in Extensible Business Reporting Language (XBRL) include: (i) Condensed Consolidated Balance Sheets at June 29, 2018 and December 31, 2017, (ii) Condensed Consolidated Statements of Operations for the three and six months ended June 29, 2018 and June 30, 2017, (iii) Condensed Consolidated Statements of Comprehensive Loss for the three and six months ended June 29, 2018 and June 30, 2017, (iv) Condensed Consolidated Statements of Cash Flows for the six months ended June 29, 2018 and June 30, 2017, and (v) Notes to Condensed Consolidated Financial Statements.

* The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of Harmonic Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

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.

HARMONIC INC.

By: /s/ Sanjay Kalra
Sanjay Kalra
Chief Financial Officer
Date: August 6, 2018