UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

(Mark One)

E Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Quarterly Period Ended April 3, 2015

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

(State or other jurisdiction of incorporation or organization)

77-0201147 (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 \square No \square

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 🗷 No 🗆

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer		Accelerated filer	×
Non-accelerated filer	□ (Do not check if a smaller reporting company)	Smaller reporting company	
Indicate by check mark whether the re	gistrant is a shell company (as defined in Rule 12b-2 of the Exchange A	ct). Yes 🗆 No 🗷	

The number of shares of the registrant's Common Stock, \$.001 par value, outstanding on April 30, 2015 was 88,532,963.

TABLE OF CONTENTS

<u>PART I</u>

ITEM 1. FINANCIAL STATEMENTS (UNAUDITED)	3
ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF	
<u>OPERATIONS</u>	25
ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	34
ITEM 4. CONTROLS AND PROCEDURES	35
<u>PART II</u>	
ITEM 1. LEGAL PROCEEDINGS	36
ITEM 1A. RISK FACTORS	36
ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS	54
ITEM 3. DEFAULTS UPON SENIOR SECURITIES	54
ITEM 4. MINE SAFETY DISCLOSURES	54
ITEM 5. OTHER INFORMATION	54
ITEM 6. EXHIBITS	55
SIGNATURES	56

PART I

FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

HARMONIC INC. CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

	April 3, 2015		December 31, 2014		
	(In thousands, exc	cept pa	ept par value amounts)		
ASSETS					
Current assets:					
Cash and cash equivalents	\$ 79,656	\$	73,032		
Short-term investments	22,203		31,847		
Accounts receivable, net	75,864		74,144		
Inventories	31,518		32,747		
Deferred income taxes, short-term	3,375		3,375		
Prepaid expenses and other current assets	 30,526		17,539		
Total current assets	243,142		232,684		
Property and equipment, net	27,140		27,221		
Goodwill	197,776		197,884		
Intangibles, net	8,692		10,599		
Other assets	10,097		12,130		
Total assets	\$ 486,847	\$	480,518		
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities:					
Accounts payable	\$ 18,497	\$	15,318		
Income taxes payable	320		893		
Deferred revenue	48,124		38,601		
Accrued liabilities	29,248		35,118		
Total current liabilities	 96,189		89,930		
Income taxes payable, long-term	5,032		4,969		
Deferred tax liabilities, long-term	3,095		3,095		
Other non-current liabilities	11,007		10,711		
Total liabilities	 115,323		108,705		
Commitments and contingencies (Note 16)					
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; 88,750 and 87,700 shares issued and outstanding at April 3, 2015 and December 31, 2014, respectively	89		88		
Additional paid-in capital	2,265,055		2,261,952		
Accumulated deficit	(1,890,904)		(1,888,247)		
Accumulated other comprehensive loss	(2,716)		(1,980)		
Total stockholders' equity	 371,524		371,813		
Total liabilities and stockholders' equity	\$ 486,847	\$	480,518		

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

HARMONIC INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

	Three	months ended
	April 3, 2015	March 28, 2014
	(In thousands, ex	cept per share amounts)
Product revenue	\$ 80,47	8 \$ 88,260
Service revenue	23,54	3 19,772
Net revenue	104,01	5 108,032
Product cost of revenue	35,46) 44,606
Service cost of revenue	13,52	3 11,114
Total cost of revenue	48,98	55,720
Gross profit	55,02	52,312
Operating expenses:		
Research and development	22,32	23,888
Selling, general and administrative	31,19	33,547
Amortization of intangibles	1,44	5 1,950
Restructuring and related charges	4	149
Total operating expenses	55,01	5 59,534
Income (loss) from operations	1:	3 (7,222)
Interest income, net	5:	5 77
Other income (expense), net	(50)	5) 12
Loss on impairment of long-term investment	(2,50)	5) —
Loss before income taxes	(2,94)	3) (7,133)
Benefit from income taxes	(28)	6) (1,723)
Net loss	\$ (2,65)	7) \$ (5,410)
Net loss per share:		
Basic	\$ (0.0.	3) \$ (0.06)
Diluted	\$ (0.0	3) \$ (0.06)
Shares used in per share calculation:		
Basic	88,65	97,921
Diluted	88,65	5 97,921

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

HARMONIC INC. CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (UNAUDITED)

	Three months ended		
	 April 3, 2015	March 28, 2014	
	 (In tho	usands)	
Net loss	\$ (2,657)	\$ (5,410)	
Other comprehensive income (loss) before tax:			
Change in unrealized losses on cash flow hedges:			
Unrealized losses arising during the period	(184)	—	
Gains reclassified into earnings	(49)	—	
	 (233)	_	
Change in unrealized gains on available-for-sale securities:	 485	7	
Change in foreign currency translation adjustments	(984)	40	
Other comprehensive income (loss) before tax	 (732)	47	
Provision for (benefit from) income taxes	4	(1)	
Other comprehensive income (loss), net of tax	(736)	48	
Total Comprehensive loss	\$ (3,393)	\$ (5,362)	

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

HARMONIC INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

		Three months ended			
		April 3, 2015	March 28, 2014		
		(In thousand	ls)		
Cash flows from operating activities:					
Net loss	\$	(2,657) \$	(5,410)		
Adjustments to reconcile net loss to net cash provided by operating activities:					
Amortization of intangibles		1,907	6,666		
Depreciation		3,493	4,227		
Stock-based compensation		4,134	3,807		
Loss on impairment of long-term investment		2,505			
Deferred income taxes, net			3,510		
Provision for excess and obsolete inventories		454	722		
Allowance for doubtful accounts, returns and discounts		(367)	(536)		
Excess tax benefits from stock-based compensation		(120)	(185)		
Other non-cash adjustments, net		154	462		
Changes in assets and liabilities:					
Accounts receivable		(1,353)	(1,927)		
Inventories		775	5,900		
Prepaid expenses and other assets		(13,062)	(6,671)		
Accounts payable		3,380	(2,533)		
Deferred revenue		10,105	6,382		
Income taxes payable		(501)	278		
Accrued and other liabilities		(6,819)	(3,447)		
Net cash provided by operating activities		2,028	11,245		
Cash flows from investing activities:					
Purchases of investments		_	(14,084)		
Proceeds from maturities of investments		9,497	15,382		
Purchases of property and equipment		(3,651)	(3,431)		
Purchases of long-term investments		(85)	_		
Net cash provided by (used in) investing activities		5,761	(2,133)		
Cash flows from financing activities:					
Payments for repurchase of common stock		(5,182)	(29,075)		
Proceeds from (repurchases of) common stock issued to employees		4,032	(1,377)		
Excess tax benefits from stock-based compensation		120	185		
Net cash used in financing activities		(1,030)	(30,267)		
Effect of exchange rate changes on cash and cash equivalents		(135)	18		
Net increase (decrease) in cash and cash equivalents		6,624	(21,137)		
Cash and cash equivalents at beginning of period		73,032	90,329		
Cash and cash equivalents at end of period	\$	79,656 \$	69,192		
· ·	-		,		

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

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 for a fair statement of 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 2, 2015 ("2014 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, 2015, 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 significant intercompany accounts and transactions have been eliminated in consolidation. The year-end condensed balance sheet was derived from audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America ("U.S. GAAP").

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. Actual results could differ from those estimates.

Significant Accounting Policies

The Company's significant accounting policies are described in Note 2 to its audited Consolidated Financial Statements included in its 2014 Form 10-K. There have been no significant changes to these policies during the three months ended April 3, 2015.

NOTE 2: RECENT ACCOUNTING PRONOUNCEMENTS

On May 28, 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers", requiring an entity to recognize the amount of revenue that reflects the consideration to which it expects to be entitled for the transfer of promised goods or services to customers. The updated standard will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. Early adoption is not permitted. The updated standard becomes effective for the Company in the first quarter of fiscal 2017. In April 2015, the FASB announced a proposal to defer the effective date by one year, with early adoption on the original effective date permitted. The Company has not yet selected a transition method and it is currently evaluating the effect that the updated standard will have on its consolidated financial statements and related disclosures.

On November 3, 2014, the FASB issued ASU No. 2014-16, "Derivatives and Hedging (Topic 815) - Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share is More Akin to Debt or to Equity". ASU 2014-16 was issued to clarify how current U.S. GAAP should be interpreted in evaluating the economic characteristics and risk of a host contract in a hybrid financial instrument that is issued in the form of a share. In addition, ASU 2014-16 was issued to clarify that in evaluating the nature of a host contract, an entity should assess the substance of the relevant terms and features (that is, the relative strength of the debt-like or equity-like terms and features given the facts and circumstances) when considering how to weight those terms and features. ASU 2014-16 is effective in the fiscal year beginning after December 15, 2015. Early adoption in an interim period is permitted. The Company is currently evaluating the impact of the adoption of ASU 2014-16 on its consolidated financial statements.

On February 18, 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810) - Amendments to the Consolidation Analysis", intended to improve targeted areas of consolidation guidance for all entities. ASU 2015-02 is effective in the fiscal

year beginning after December 15, 2015. Early adoption in an interim period is permitted. The Company is currently evaluating the impact of the adoption of ASU 2015-02 on its consolidated financial statements.

On April 15, 2015, the FASB issued ASU No. 2015-05, "Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40) - Customer's Accounting for Fees Paid in a Cloud Computing Arrangement". ASU 2015-05 amends ASC 350-40 to provide customers with guidance on whether a cloud computing arrangement contains a software license to be accounted for as internal-use software. ASU No. 2015-05 is effective in the fiscal year beginning after December 15, 2015. Early adoption in an interim period is permitted. The Company is currently evaluating the impact of the adoption of ASU 2015-05 on its consolidated financial statements.

NOTE 3: SHORT-TERM INVESTMENTS

The following table summarizes the Company's short-term investments (in thousands):

	Amortized Cost		Gross Unrealized Gains		Gross Unrealized Losses		Estimated Fair Value
As of April 3, 2015							
State, municipal and local government agencies bonds	\$	11,228	\$	10	\$	—	\$ 11,238
Corporate bonds		10,969		1		(5)	 10,965
Total short-term investments	\$	22,197	\$	11	\$	(5)	\$ 22,203
As of December 31, 2014					_		
State, municipal and local government agencies bonds	\$	13,946	\$	16	\$	(1)	\$ 13,961
Corporate bonds		17,899		3		(16)	17,886
Total short-term investments	\$	31,845	\$	19	\$	(17)	\$ 31,847

The following table summarizes the maturities of the Company's short-term investments (in thousands):

	Aj	oril 3, 2015	Dece	ember 31, 2014
Less than one year	\$	22,203	\$	30,946
Due in 1 - 2 years		—		901
Total short-term investments	\$	22,203	\$	31,847

These available-for-sale investments are presented as "Current Assets" in the Condensed Consolidated Balance Sheet as they are available for current operations. Realized gains and losses from the sale of investments for the three months ended April 3, 2015 and March 28, 2014 were not material.

As of April 3, 2015 and December 31, 2014, \$6.7 million and \$8.6 million, respectively, of investments in equity securities of other privately and publicly held companies were considered as long-term investments and were included in "Other assets" in the Condensed Consolidated Balance Sheet (See Note 4, "Investments in Other Equity Securities," for additional information).

Impairment of Short-term Investments

The Company monitors its investment portfolio for impairment on a periodic basis. In the event that the carrying value of an investment exceeds its fair value and the decline in value is determined to be other-than-temporary, an impairment charge is recorded and a new cost basis for the investment is established. A decline of fair value below amortized costs of debt securities is considered other-than-temporary if the Company has the intent to sell the security or it is more likely than not that the Company will be required to sell the security before recovery of the entire amortized cost basis. At the present time, the Company does not intend to sell its investments that have unrealized losses in accumulated other comprehensive loss. In addition, the Company does not believe that it is more likely than not that it will be required to sell its investments that have unrealized losses in accumulated other comprehensive loss before the Company recovers the principal amounts invested. The Company believes that the unrealized losses are temporary and do not require an other-than-temporary impairment, based on its evaluation of available evidence as of April 3, 2015.

As of April 3, 2015, there were no individual available-for-sale securities in a material unrealized loss position and the amount of unrealized losses on the total investment balance was insignificant.

NOTE 4: INVESTMENTS IN OTHER EQUITY SECURITIES



From time to time, the Company may acquire certain equity investments for the promotion of business objectives and these investments are classified as long-term investments and included in "Other assets" in the Condensed Consolidated Balance Sheet.

On September 2, 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, and also made a \$3.3 million prepayment for future software license purchases. The investment in Vislink is being accounted for as a cost method investment as the Company does not have significant influence over the operational and financial policies of Vislink. Since the Vislink investment is also an available-for-sale security, its value is marked to market for the difference in fair value at period end. As of April 3, 2015, the carrying value of Vislink was \$3.1 million and the accumulated unrealized loss of \$0.2 million, net of taxes, on the Vislink investment is included in the Condensed Consolidated Balance Sheet as a component of "Accumulated other comprehensive income (loss)". As of April 3, 2015, the balance of the prepayment to Vislink for future software license purchase was \$1.1 million and it was included in "Prepaid expenses and other current assets" in the Condensed Consolidated Balance Sheet. The Company determined that there were no impairment indicators existing at April 3, 2015 that would indicate that the Vislink investment was impaired and the Company believes the decline in the fair value of the Vislink investment is temporary. As of April 3, 2015, the Company's maximum exposure to loss from the Vislink investment was limited to its initial investment cost of \$3.3 million. As of December 31, 2014, the carrying value of Vislink was \$2.6 million and the accumulated unrealized loss, net of taxes, was \$0.7 million.

Unconsolidated Variable Interest Entities ("VIE")

VJU

On September 26, 2014, the Company acquired a 19.8% interest in VJU iTV Development GmbH ("VJU"), a software company based in Austria, for \$2.5 million. Since VJU's equity is deemed not sufficient to permit it to finance its activities without additional support from its shareholders, VJU is considered a variable interest entity ("VIE"). The Company determined that it is not the primary beneficiary of VJU because its financial interest in VJU's equity and its research and development agreement with VJU do not empower the Company to direct VJU's activities that will most significantly impact VJU's economic performance. VJU is accounted for as a cost method investment as the Company does not have significant influence over the operational and financial policies of VJU.

The Company attended a VJU board meeting on March 5, 2015 as an observer. At that meeting, the Company was made aware of significant decreases in VJU's business prospects, VJU'S existing working capital and prospects for additional funding, compared to the prior information the Company had received from VJU. Based on the Company's assessment, the Company determined that its investment in VJU was impaired on an other-than-temporary basis. Factors considered included the severity of the impairment and recent events specific to VJU. Based on the Company's assessment of VJU's expected cash flows, the entire investment is expected to be non-recoverable. As a result, the Company recorded an impairment charge of \$2.5 million in the first quarter of 2015. The Company's impairment loss in VJU is limited to its initial cost of investment of \$2.5 million as well as the \$0.1 million research and development cost expensed in September 2014.

EDC

On October 22, 2014, the Company acquired an 18.4% interest in Encoding.com, Inc. ("EDC"), a video transcoding service company headquartered in San Francisco, California, for \$3.5 million by purchasing EDC's Series B preferred stock. Since EDC's equity is deemed not sufficient to permit it to finance its activities without additional support from its shareholders, EDC is considered a VIE. The Company determined that it is not the primary beneficiary of EDC because its financial interest in EDC's equity does not empower the Company to direct EDC's activities that will most significantly impact EDC's economic performance. In addition, the Company determined that its investment in EDC's Series B preferred stock does not have the risk and reward characteristics that are substantially similar to EDC's common stock. Therefore, Harmonic does not hold an investment in EDC's common stock or in-substance common stock. According to the applicable accounting guidance, the EDC investment is accounted for as a cost-method investment.

The following table presents the carrying values and maximum exposure of the unconsolidated VIEs as of April 3, 2015 (in thousands):

		Car	Carrying Value		m exposure to loss ⁽¹⁾
VJU			_		
EDC ⁽²⁾			3,593		3,593
Total		\$	3,593	\$	3,593
	9				

(1) The Company did not provide financial support to any of its unconsolidated VIEs and as of April 3, 2015, there were no explicit arrangements or implicit variable interests that could require the Company to provide financial support to any of its unconsolidated VIEs.

(2) The Company's maximum exposure to loss with respect to EDC as of April 3, 2015 was limited to a total investment cost of \$3.6 million, including \$0.1 million of transaction costs.

Each reporting period, the Company reviews all of its unconsolidated VIE investments to determine whether there are any reconsideration events that may result in the Company being a primary beneficiary of the unconsolidated VIE which would then require the Company to consolidate the VIE. The Company also reviews all of its cost-method investments in each reporting period to determine whether a significant event of change in circumstances has occurred that may have an adverse effect on the fair value of each investment.

NOTE 5: 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 expose 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 Designated as Hedging Instruments (Cash Flow Hedges)

Beginning in December 2014, the Company entered into forward currency contracts to hedge forecasted operating expenses and service costs related to employee salaries and benefits denominated in Israeli shekels ("ILS") for its subsidiaries in Israel. These ILS forward contacts mature generally within twelve months and are designated as cash flow hedges. For derivatives that are designated as hedges of forecasted foreign currency denominated operating expenses and service costs, the Company assesses effectiveness based on changes in spot currency exchange rates. Changes in spot rates on the derivative are recorded as a component of "Accumulated other comprehensive income (loss)" ("OCI") in the Condensed Consolidated Balance Sheet until such time as the hedged transaction impacts earnings. The change in fair value of the forward points, which reflects the interest rate differential between the two countries on the derivative, is excluded from the effectiveness assessment. Gains or losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

Derivatives Not Designated as Hedging Instruments (Balance Sheet Hedges)

Balance sheet hedges consist of foreign currency forward contracts, mature generally within three months, are carried at fair value and they 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.

The locations and amounts of designated and non-designated derivative instruments' gains and losses reported in the Company's Condensed Consolidated Statements of Operations were as follows (in thousands):

		Three months ended			
	Financial Statement Location	Apri	13,2015	March 28, 2014	
Derivatives Designated as Hedging instruments:					
Gains in accumulated OCI on derivatives (effective portion)	Accumulated OCI	\$	184	\$	
Gains reclassified from accumulated OCI into income (effective portion)	Cost of Revenue	\$	7	\$ —	
	Operating Expense		42	—	
	Total	\$	49	\$ —	
Loss recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing)	Other income (expense), net	\$	(42)	\$ —	
Derivatives Not Designated as Hedging instruments:					
Gains (losses) recognized in income	Other income (expense), net	\$	252	\$ (177)	



The Company anticipates the accumulated OCI balance of 78,000 at April 3, 2015, relating to net unrealized gains from cash flow hedges, will be reclassified to earnings in 2015.

The U.S. dollar equivalents of all outstanding notional amounts of foreign currency forward contracts are summarized as follows (in thousands):

	April 3, 2015	December 31, 2014		
Derivatives designated as cash flow hedges:				
Purchase	\$ 12,728	\$	16,903	
Derivatives not designated as hedging instruments:				
Purchase	\$ 6,585	\$	1,043	
Sell	\$ 9,069	\$	4,925	

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

			Asset Derivatives				Derivative Liabilities				
	Balance Sheet Location	Арг	·il 3, 2015		December 31, 2014	Balance Sheet Location	Apr	il 3, 2015	1	December 31, 2014	
Derivatives designated as hedging instruments:											
Foreign currency contracts	Prepaid expenses and other current assets	\$	57	\$	329	Accrued Liabilities	\$		\$	_	
		\$	57	\$	329		\$		\$	_	
Derivatives not designated as hedging instruments:											
Foreign currency contracts	Prepaid expenses and other current assets	\$	91	\$	12	Accrued Liabilities	\$	18	\$	7	
		\$	91	\$	12		\$	18	\$	7	
Total derivatives		\$	148	\$	341		\$	18	\$	7	

Offsetting of Derivative Assets and Liabilities

The Company recognizes all derivative instruments on a gross basis in the Condensed Consolidated Balance Sheet. 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. To further limit credit risk, the Company also enters into cash collateral security arrangements with the same counterparty. As of April 3, 2015, information related to the offsetting arrangements was as follows (in thousands):

					G	ross Amounts of De Offset in the Co Consolidated Bala	ndensed		
	 oss Amounts of Derivatives	Gross Amounts of Derivatives Offset in the Condensed Consolidated Balance sheets	De	Net Amounts of rivatives Presented in the Condensed nsolidated Balance Sheets		Financial Instrument	Cash Collateral Pledged	Net 2	Amount
Derivative Assets	\$ 148	_	\$	148	\$	(18)	_	\$	130
Derivative Liabilities	\$ 18	—	\$	18	\$	(18)	—	\$	—

As of December 31, 2014, there was no potential effect of rights of offset associated with the outstanding foreign currency forward contracts that would result in a net derivative asset or net derivative liability.

NOTE 6: FAIR VALUE MEASUREMENTS

The applicable accounting guidance establishes a framework for measuring fair value and requires disclosure about the fair value measurements of assets and liabilities. 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 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.

The guidance defines fair value 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.

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 Company primarily uses broker quotes for valuation of its short-term investments. 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 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. During the three months ended April 3, 2015, there were no nonrecurring fair value measurements of assets and liabilities subsequent to initial recognition.

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

	Level 1	Level 2	Level 3		Total
As of April 3, 2015					
Cash equivalents					
Money market funds	\$ 32,795	\$ —	\$ 	\$	32,795
Short-term investments					
State, municipal and local government agencies bonds		11,238	—		11,238
Corporate bonds	—	10,965			10,965
Prepaids and other current assets					
Derivative assets		148	—		148
Other assets					
Long-term investment	3,082	—	—		3,082
Total assets measured and recorded at fair value	\$ 35,877	\$ 22,351	\$ —	\$	58,228
Accrued liabilities					
Derivative liabilities	\$ —	\$ 18	\$ —	\$	18
Total liabilities measured and recorded at fair value	\$ _	\$ 18	\$ 	\$	18
	 Level 1	 Level 2	Level 3		Total
As of December 31, 2014					
Cash equivalents					
Cush equivalents					
Money market funds	\$ 23,121	\$ 	\$ —	\$	23,121
*	\$ 23,121	\$ _	\$ _	\$	23,121
Money market funds	\$ 23,121	\$ — 13,961	\$ _	\$	23,121 13,961
Money market funds Short-term investments	\$ 23,121	\$ — 13,961 17,886	\$ _	\$,
Money market funds Short-term investments State, municipal and local government agencies bonds	\$ 23,121	\$,	\$ -	\$	13,961
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds	\$ 23,121	\$,	\$ -	\$	13,961
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds Prepaids and other current assets	\$ 23,121	\$ 17,886	\$ -	\$	13,961 17,886
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds Prepaids and other current assets Derivative assets	\$ 23,121 — — 2,606	\$ 17,886	\$ -	\$	13,961 17,886
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds Prepaids and other current assets Derivative assets Other assets	\$ -	\$ 17,886	\$ -	\$	13,961 17,886 341
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds Prepaids and other current assets Derivative assets Other assets Long-term investment		17,886 341 —	-		13,961 17,886 341 2,606
Money market funds Short-term investments State, municipal and local government agencies bonds Corporate bonds Prepaids and other current assets Derivative assets Other assets Long-term investment Total assets measured and recorded at fair value		17,886 341 —			13,961 17,886 341 2,606

NOTE 7: BALANCE SHEET COMPONENTS

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

Ap	oril 3, 2015	December	31, 2014
\$	80,974	\$	81,201
	(5,110)		(7,057)
\$	75,864	\$	74,144
	Ap \$	(5,110)	\$ 80,974 \$ (5,110)

Prepaid expenses and other current assets:

1 1		
Prepaid inventories to contract manufacturer ⁽¹⁾	\$ 14,200	\$ —
Prepaid software license to Vislink ⁽²⁾	1,090	1,233
Other Prepayments	9,953	9,713
Deferred cost of revenue	3,364	2,524
Income tax receivable	1,664	2,316
Other	255	1,753
	\$ 30,526	\$ 17,539

(1) In the first quarter of 2015, the Company made a \$14.2 million advance payment for future inventory requirements to a supplier in order to secure more favorable pricing. The Company anticipates that this amount will begin to offset in the fourth quarter of 2015 through the first quarter of 2016 against the accounts payable owed to this supplier.

(2) The prepaid inventories were related to prepayment for software licenses made to Vislink (see Note 4, "Investments in Other Equity Securities," for additional information on Vislink).

Inventories:		
Raw materials	\$ 1,844	\$ 1,422
Work-in-process	1,439	1,255
Finished goods	 28,235	30,070
Total	\$ 31,518	\$ 32,747
Property and equipment, net:		
Furniture and fixtures	\$ 7,690	\$ 7,691
Machinery and equipment	116,895	116,031
Leasehold improvements	9,550	8,140
Property and equipment, gross	 134,135	 131,862
Less: accumulated depreciation and amortization	(106,995)	(104,641)
Total	\$ 27,140	\$ 27,221

NOTE 8: GOODWILL AND IDENTIFIED INTANGIBLE ASSETS

Good will

The following table presents goodwill by reportable segments (in thousands):

	Video	Cable Edge		Total
As of December 31, 2014	\$ 136,975	\$ 60,909	\$	197,884
Foreign currency translation adjustment	 (75)	(33)		(108)
As of April 3, 2015	\$ 136,900	\$ 60,876	\$	197,776

Identified Intangible Assets

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



			April 3, 2015							Decei	mber 31, 2014		
	Range of Useful Lives	0	Gross Carrying Amount		ccumulated mortization		Net Carrying Amount	(Gross Carrying Amount		Accumulated Amortization	I	Net Carrying Amount
Identifiable intangibles:													
Developed core technology	4-6 years	\$	136,145	\$	(135,887)	\$	258	\$	136,145	\$	(135,426)	\$	719
Customer relationships/contracts	5-6 years		67,098		(60,001)		7,097		67,098		(58,784)		8,314
Maintenance agreements and related relationships	l 6-7 years		7,100		(5,763)		1,337		7,100		(5,534)		1,566
Total identifiable intangibles		\$	210,343	\$	(201,651)	\$	8,692	\$	210,343	\$	(199,744)	\$	10,599

Amortization expense for the identifiable purchased intangible assets for the three months ended April 3, 2015 and March 28, 2014 was allocated as follows (in thousands):

	Three months ended					
	 April 3, 2015		March 28, 2014			
Included in cost of revenue	\$ 461	\$	4,716			
Included in operating expenses	1,446		1,950			
Total amortization expense	\$ 1,907	\$	6,666			

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

	Operating					
	Cost of Revenue			Expenses		Total
Year ended December 31,						
2015 (remaining 9 months)	\$	258	\$	4,337	\$	4,595
2016		—		4,097		4,097
Total future amortization expense	\$	258	\$	8,434	\$	8,692

NOTE 9: RESTRUCTURING AND RELATED CHARGES

The Company 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 asset impairment charges are included in "Product 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					
	 April 3, 2015		March 28, 2014			
Restructuring and related charges in:						
Product cost of revenue	\$ 	\$	79			
Operating expenses-Restructuring and related charges	44		149			
	\$ 44	\$	228			

Harmonic 2015 Restructuring

In the fourth quarter of 2014, the Company approved a new restructuring plan (the "Harmonic 2015 Restructuring Plan") to reduce 2015 operating costs and the planned restructuring activities involve headcount reduction, exiting certain operating



facilities and disposing of excess assets. The Company started the restructuring activities pursuant to this plan in the fourth quarter of 2014 and expects to complete its actions by end of 2015. The Company recorded \$2.2 million of restructuring and asset impairment charges recorded under this plan in the fourth quarter of 2014 consisting of a \$1.1 million fixed asset impairment charge related to software development costs incurred for a discontinued information technology ("IT") project, \$0.6 million of severance and benefits related to the termination of nineteen employees worldwide, \$0.3 million of excess material costs associated with the termination of a research and development project and \$0.1 million of other charges. In the three months ended April 3, 2015, the Company recorded an additional 44,000 restructuring charges under the Harmonic 2015 Restructuring Plan primarily related to severance and benefits for two employees.

The following table summarizes the activity in the Harmonic 2015 restructuring accrual during the three months ended April 3, 2015 (in thousands):

	Severance and benefits	Other charges	Total
Balance at December 31, 2014	\$ 305	\$ 17	\$ 322
Restructuring charges	56	_	56
Adjustments to restructuring provisions	(5)	(7)	(12)
Cash payments	(312)	(9)	(321)
Non-cash write-offs	—	2	2
Balance at April 3, 2015	\$ 44	\$ 3	\$ 47

Harmonic 2013 Restructuring

The Company implemented a series of restructuring plans in 2013 to reduce costs and improve efficiencies. These restructuring plans extended to actions taken through the third quarter of fiscal 2014. As a result, the Company recorded restructuring charges of \$2.2 million and \$0.9 million in fiscal 2013 and fiscal 2014, respectively. The restructuring charges in the three months ended March 28, 2014 were \$0.2 million under these plans, consisting of severance and benefits related to the termination of eight employees worldwide and costs associated with vacating from excess facility in France. For a complete discussion of the restructuring actions related to the 2013 restructuring plans, see Note 11, "Restructuring and Asset Impairment Charges," of Notes to Consolidated Financial Statements in the 2014 Form 10-K.

NOTE 10: CREDIT FACILITIES

On December 22, 2014, the Company entered into a Credit Agreement with JPMorgan Chase Bank, N.A. ("JPMorgan") for a \$20.0 million revolving credit facility, with a sublimit of \$10.0 million for the issuance of commercial and standby letters of credit on the Company's behalf. Revolving loans under the Credit Agreement may be borrowed, repaid and re-borrowed until December 22, 2015, at which time all amounts borrowed must be repaid. There were no borrowings under the Credit Agreement during the three months ended April 3, 2015. As of April 3, 2015, the amount available for borrowing under this facility, net of \$0.2 million of standby letters of credit, was \$19.8 million.

The revolving loan bears interest, at the Company's election, at either (a) an adjusted LIBOR rate for a term of one, two or three months, plus an applicable margin of 1.75% or (b) the prime rate plus an applicable margin of -1.30%, provided that such rate shall not be less than the one month adjusted LIBOR rate, plus 2.5%. In the event that the balance of the Company's accounts held with JPMorgan falls below \$30.0 million in aggregate total worldwide consolidated cash and short-term investments (the "Consolidated Cash Threshold") for five consecutive business days, the Company is obligated to pay a one-time facility fee of \$50,000 to JPMorgan. The Company is also obligated to pay JPMorgan a non-usage fee equal to the average daily unused portion of the credit facility multiplied by a per annum rate of 0.25% if, during any calendar month, the balance in the Company's accounts held with JPMorgan falls below the Consolidated Cash Threshold for five consecutive business days.

The Company will pay a letter of credit fee with respect to any letters of credit issued under the Credit Agreement in an amount equal to (a) in the case of a standby letter of credit, the maximum amount available to be drawn under such standby letter of credit multiplied by a per annum rate of 1.75% and (b) in the case of a commercial letter of credit, the greater of \$100 or 0.75% of the original maximum available amount of such commercial letter of credit. The Company will also pay other customary transaction fees and costs in connection with the issuance of letters of credit under the Credit Agreement.

Obligations under the Credit Agreement are secured only by a pledge of 66 2/3% of the Company's equity interests in its foreign subsidiary, Harmonic International AG. Additionally, to the extent that the Company in the future forms any direct or



indirect, domestic, material subsidiaries, those subsidiaries will be required to provide a guaranty of the Company's obligations under the Credit Agreement.

The Credit Agreement contains customary affirmative and negative covenants, including covenants that limit the Company's and its subsidiaries' ability to, among other things, incur indebtedness, grant liens, merge or consolidate, dispose of assets, make investments or pay dividends, in each case subject to certain exceptions. The Company is also required to maintain, on a consolidated basis, total cash and marketable securities of at least \$35.0 million and EBITDA of at least \$20.0 million determined on a rolling four-quarter basis. As of April 3, 2015, the Company was in compliance with the covenants under the Credit Agreement.

NOTE 11: EMPLOYEE BENEFIT PLANS

Harmonic grants stock options and restricted stock units ("RSUs") pursuant to stockholder approved equity incentive plans. These equity incentive plans are described in detail in Note 14, "Employee Benefit Plans", of Notes to Consolidated Financial Statements in the 2014 Form 10-K.

Stock Options and Restricted Stock Units

The following table summarizes the Company's stock option and RSU unit activity during the three months ended April 3, 2015 (in thousands, except per share amounts):

		Stock Option	ns Outstanding	Restricted Stoc	Restricted Stock Units Outstanding			
	Shares Available for Grant	Number of Shares	Weighted Average Exercise Price	Number of Units		Weighted Average Grant Date Fair Value		
Balance at December 31, 2014	7,480	7,255	\$ 6.65	2,241	\$	6.40		
Authorized		—	—	—		—		
Granted	(3,037)	1,049	7.58	1,325		7.57		
Options exercised	—	(617)	5.49	—		_		
Shares released	—	—	—	(925)		6.56		
Forfeited or cancelled	283	(172)	6.86	(73)		6.23		
Balance at April 3, 2015	4,726	7,515	\$ 6.87	2,568	\$	7.01		

The following table summarizes information about stock options outstanding as of April 3, 2015 (in thousands, except per share amounts):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Vested and expected to vest	7,126	\$ 6.87	3.7	\$ 6,331
Exercisable	4,694	6.94	2.5	4,571

The intrinsic value of options vested and expected to vest and exercisable as of April 3, 2015 is calculated based on the difference between the exercise price and the fair value of the Company's common stock as of April 3, 2015. The intrinsic value of options exercised is calculated based on the difference between the exercise price and the fair value of the Company's common stock as of the exercise date. The intrinsic value of options exercised during the three months ended April 3, 2015 and March 28, 2014 was \$1.3 million and \$0.1 million, respectively.

The following table summarizes information about RSUs outstanding as of April 3, 2015 (in thousands, except per share amounts):

	Number of Shares Underlying Restricted Stock Units	Weighted Average Remaining Vesting Period (Years)	Aggregate Fair Value
Vested and expected to vest	2,359	0.8	\$ 17,407

The fair value of RSUs vested and expected to vest as of April 3, 2015 is calculated based on the fair value of the Company's common stock as of April 3, 2015.

Employee Stock Purchase Plan

The 2002 Employee Stock Purchase Plan ("ESPP") provides for the issuance of common stock purchase rights to employees of the Company. The ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code. The ESPP enables employees to purchase shares at 85% of the fair market value of the common stock at the beginning or end of the offering period, whichever is lower. Offering periods generally begin on the first trading day on or after January 1 and July 1 of each year. Employees may participate through payroll deductions of 1% to 10% of their earnings. In the event that there are insufficient shares in the plan to fully fund the issuance, the available shares will be allocated across all participants based on their contributions relative to the total contributions received for the offering period.

401(k) Plan

The Company has a retirement/savings plan 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 three months ended April 3, 2015 and March 28, 2014 were \$161,000 and \$173,000, respectively.

NOTE 12: STOCK-BASED COMPENSATION

Stock-based compensation expense consists primarily of expenses for stock options and RSUs granted to employees and shares issued under the ESPP. The following table summarizes stock-based compensation expense (in thousands):

		Three months ended		
	A	April 3, 2015		March 28, 2014
Stock-based compensation in:				
Cost of revenue	\$	528	\$	516
Research and development expense		1,148		1,101
Selling, general and administrative expense		2,458		2,190
Total stock-based compensation in operating expense		3,606		3,291
Total stock-based compensation	\$	4,134	\$	3,807

The Company is required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The Company uses historical data to estimate pre-vesting option forfeitures and records stock-based compensation expense only for those awards that are expected to vest. All stock-based payment awards are amortized on a straight-line basis over the requisite service periods of the awards, which are generally the vesting periods.

Stock Options

The Company estimated the fair value of all employee stock options using a Black-Scholes valuation model with the following weighted average assumptions:

	Three m	onths ended
	April 3, 2015	March 28, 2014
Expected term (years)	4.70	4.70
Volatility	38%	40%
Risk-free interest rate	1.6%	1.7%
Expected dividends	0.0%	0.0%

The expected term 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 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 that the Company uses in the Black-Scholes option valuation model is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term. The Company has never declared or paid any cash dividends and does not plan to pay cash dividends in the foreseeable future, and, therefore, used an expected dividend yield of zero in the valuation model.

The weighted-average fair value per share of options granted was \$2.63 and \$2.35 for the three months ended April 3, 2015 and March 28, 2014, respectively. The fair value of all stock options vested during the three months ended April 3, 2015 and March 28, 2014 were both \$1.3 million. The total realized tax benefit attributable to stock options exercised during the three months ended April 3, 2015 and March 28, 2014, in jurisdictions where this expense is deductible for tax purposes, were \$120,000 and \$185,000, respectively.

Restricted Stock Units

The aggregate fair value of all RSUs issued during the three months ended April 3, 2015 and March 28, 2014 were \$6.1 million and \$5.4 million, respectively.

Employee Stock Purchase Plan

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. The weighted average fair value of the Company's ESPP shares at purchase dates was estimated using the following weighted average assumptions during the three months ended April 3, 2015 and March 28, 2014:

	Purchase Perio	d Ending
	June 30, 2015	June 30, 2014
Expected term (years)	0.49	0.50
Volatility	35%	29%
Risk-free interest rate	0.1%	0.1%
Expected dividends	0.0%	0.0%
Estimated weighted average fair value per share at purchase date	\$1.74	\$1.71

The expected term 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 that the Company uses in the Black-Scholes option valuation model is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term. The Company has never declared or paid any cash dividends and does not plan to pay cash dividends in the foreseeable future, and, therefore, used an expected dividend yield of zero in the valuation model.

Unrecognized Stock-Based Compensation

As of April 3, 2015, the Company had approximately \$20.1 million of unrecognized stock-based compensation expense related to the unvested portion of its stock options and RSUs that is expected to be recognized over a weighted-average period of approximately 2.1 years.



NOTE 13: INCOME TAXES

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

	Three months ended			
	 April 3, 2015		March 28, 2014	
Loss before income taxes	\$ (2,943)	\$	(7,133)	
Benefit from income taxes	(286)		(1,723)	
Effective income tax rate	9.7%			

The Company's quarterly income taxes reflect an estimate of the corresponding fiscal year's annual effective tax rate and include, where applicable, adjustments for discrete tax items.

In the three months ended April 3, 2015, the Company's effective income tax rate was 9.7%. The rate for the three months ended April 3, 2015 is lower than the U.S. federal statutory rate of 35% primarily because the loss before income taxes for three months ended April 3, 2015 included the loss on impairment of VJU investment (see Note 4, "Investments in Other Equity Securities") for which no tax benefit can be recognized. The effective tax rate for the three months ended April 3, 2015 excluding the loss on impairment of VJU would be approximately 65% and this is higher than the U.S. federal rate of 35% primarily due to an increase in the Company's U.S. current and non-current income tax payable as well as maintaining a full valuation allowance against all of the Company's U.S. deferred tax assets.

In the three months ended March 28, 2014, the Company's effective rate was 24.2%, lower than the U.S. federal statutory rate of 35%, primarily due to favorable tax rates associated with certain earnings from operations in lower-tax jurisdictions, partially offset by the detriment from non-deductible stock-based compensation and non-deductible amortization of foreign intangibles, and various net discrete tax adjustments. For three months ended March 28, 2014, the discrete adjustments to the Company's tax benefit were primarily the accrual of interest on uncertain tax positions.

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 2011 through 2014 tax years generally remain subject to examination by U.S. federal and most state tax authorities. In significant foreign jurisdictions, the 2006 through 2014 tax years generally remain subject to examination by their respective tax authorities. In the first quarter of 2015, the Israeli tax authority commenced an audit of a subsidiary of the Company for the 2012 and 2013 tax years. If, upon the conclusion of this audit, the ultimate determination of taxes owed in Israel 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.

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 April 3, 2015, the total amount of gross unrecognized tax benefits, including interest and penalties, was approximately \$16.3 million, that if recognized, would affect the Company's effective tax rate. The Company recognizes interest and penalties related to unrecognized tax positions in income tax expense. The Company had \$0.6 million of gross interest and penalties accrued as of April 3, 2015. The Company will continue to review its tax positions and provide for, or reverse, unrecognized tax benefits as issues arise. As of April 3, 2015, the Company anticipates that the balance of gross unrecognized tax benefits will decrease up to approximately \$1.0 million due to expiration of the applicable statues of limitations over the next twelve months.

NOTE 14: INCOME (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			
	Apri 201	· ·	March 28, 2014		
Numerator:					
Net loss	\$	(2,657) \$	(5,410)		
Denominator:					
Weighted average number of common shares outstanding					
Basic and diluted		88,655	97,921		
Net loss per share:					
Basic and diluted	\$	(0.03) \$	(0.06)		

The following table sets forth the potentially dilutive shares from stock options, RSUs and the ESPP, for the periods presented, that were excluded from the net loss per share computations because their effect was anti-dilutive (in thousands):

	Three mon	ths ended
	April 3, 2015	March 28, 2014
Potentially dilutive equity awards outstanding	9,641	11,072

NOTE 15: 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 ("CODM"), which for Harmonic is its Chief Executive Officer, in deciding how to allocate resources and assess performance. Prior to the fourth quarter of 2014, the Company operated its business in one reportable segment. In connection with the 2015 annual planning process, the Company changed its operating segments to align with how the CODM expected to evaluate the financial information used to allocate resources and assess performance of the Company. The new reporting structure consists of two operating segments: Video and Cable Edge. As a result, the segment information presented has been conformed to the new operating segments for all prior periods.

The new 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 Edge segment sells cable edge solutions and related services to cable operators globally.

The Company does not allocate amortization of intangibles, stock-based compensation, restructuring and asset impairment charges, and certain other nonrecurring charges to the operating income 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.

The following tables provide summary financial information by reportable segment (in thousands):

		Three months ended			
	А	April 3, 2015 M		arch 28, 2014	
Net revenue:					
Video	\$	69,282	\$	81,152	
Cable Edge		34,734		26,880	
Total consolidated net revenue	\$	104,016	\$	108,032	
Operating income (loss):					
Video	\$	(90)	\$	2,435	
Cable Edge		6,188		1,044	
Total segment operating income		6,098		3,479	
Unallocated corporate expenses*		(44)		(228)	
Stock-based compensation		(4,134)		(3,807)	
Amortization of intangibles		(1,907)		(6,666)	
Income (loss) from operations		13		(7,222)	
Non-operating income (expense)		(2,956)		89	
Loss before income taxes	\$	(2,943)	\$	(7,133)	

*Unallocated corporate expenses include certain corporate-level operating expenses and charges such as restructuring and related charges.

NOTE 16: COMMITMENTS AND CONTINGENCIES

Leases

Future minimum lease payments under non-cancelable operating leases as of April 3, 2015, after giving effect to \$131,000 of future sublease income, are as follows (in thousands):

Years ending December 31,

2015 (remaining 9 months)	\$ 7,591
2016	8,788
2017	8,067
2018	7,933
2019	7,885
Thereafter	6,133
Total	\$ 46,397

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 liabilities, is summarized below (in thousands):

	Three months ended			
	 April 3, 2015		March 28, 2014	
Balance at beginning of period	\$ 4,242	\$	3,606	
Accrual for current period warranties	1,595		1,749	
Warranty costs incurred	(1,746)		(1,696)	
Balance at end of period	\$ 4,091	\$	3,659	

Purchase Commitments with Contract Manufacturers and Other Suppliers

The Company relies on a limited number of contract manufacturers and suppliers to provide manufacturing services for a substantial majority of its products. In addition, some components, sub-assemblies and modules are obtained from a sole supplier or limited group of suppliers. During the normal course of business, in order to reduce manufacturing lead times and ensure adequate component supply, the Company enters into agreements with certain contract manufacturers and suppliers that allow them to procure inventory and services based upon criteria defined by the Company. The Company had approximately \$22.6 million of non-cancelable purchase commitments with contract manufacturers and other suppliers as of April 3, 2015.

Standby Letters of Credit

As of April 3, 2015, the Company's financial guarantees consisted of standby letters of credit outstanding, which were principally related to performance bonds and state requirements imposed on employers. The maximum amount of potential future payments under these arrangements was \$0.4 million as of April 3, 2015.

Indemnification

Harmonic is obligated to indemnify its officers and the members of its Board of Directors 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 April 3, 2015.

Guarantees

The Company has \$0.4 million of guarantees in Israel as of April 3, 2015, with the majority relating to rent obligations for buildings used by its Israeli subsidiaries.

Legal proceedings

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 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.

In October 2011, Avid Technology, Inc. ("Avid") filed a complaint in the United States District Court for the District of Delaware alleging that the Company's Media Grid product infringes two patents held by Avid. A jury trial on this complaint commenced on January 23, 2014 and, on February 4, 2014, the jury returned a unanimous verdict in favor of the Company, rejecting Avid's infringement allegations in their entirety. On May 23, 2014, Avid filed a post-trial motion asking the court to set aside the jury's verdict, and the judge issued an order on December 17, 2014, denying the motion. On January 5, 2015, Avid filed an appeal with respect to the jury's verdict with the Federal Circuit, which was docketed on January 9, 2015, as Case No. 2015-1246. Avid filed its opening brief with respect to this appeal on March 24, 2015, and the Company filed its response brief on May 7, 2015.

In June 2012, Avid served a subsequent complaint in the United States District Court for the District of Delaware alleging that the Company's Spectrum product infringes one patent held by Avid. The complaint seeks 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. A hearing before the PTAB was conducted on May 20, 2014. On July 10, 2014, the PTAB issued a decision finding claims 1 - 10 invalid and claims 11 - 16 not invalid. The Company filed an appeal with respect to the PTAB's decision on claims 11 - 16 on September 11, 2014. The appeal was docketed with the Federal Circuit on October 22, 2014, as Case No. 2015-1072, and the Company filed its opening brief with respect to this appeal on January 29, 2015. Avid and PTAB each filed a response brief on April 27, 2015.

An unfavorable outcome on any litigation matter could require that the Company pay substantial damages, or, in connection with any intellectual property infringement claims, could require that the Company pay ongoing royalty payments or could prevent the Company from selling certain of its 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 the Company's business, operating results, financial position and cash flows.

NOTE 17: STOCKHOLDERS' EQUITY

Accumulated Other Comprehensive Loss ("AOCI")

The components of accumulated other comprehensive loss, on an after-tax basis where applicable, were as follows (in thousands):

	1	Foreign Currency Translation Adjustments	(Unrealized Gains Losses) on Cash Flow Hedges	(L	Unrealized Gains osses) on Available- or-Sale Investments	Total
Balance as of December 31, 2014	\$	(1,523)	\$	311	\$	(768)	\$ (1,980)
Other comprehensive income (loss) before reclassifications		(984)		(184)		485	\$ (683)
Amounts reclassified from AOCI				(49)		_	(49)
Provision for income taxes				—		(4)	(4)
Balance as of April 3, 2015	\$	(2,507)	\$	78		(287)	(2,716)

The effects of amounts reclassified from AOCI into the condensed consolidated statement of operations were as follows (in thousands):

		Three mon	ths ended
	April	3, 2015	March 28, 2014
Gains on cash flow hedges from foreign currency contracts:			
Cost of revenue	\$	7	\$ —
Operating expenses		42	—
Total reclassifications from AOCI	\$	49	\$

Common Stock Repurchases

On April 24, 2012, the Company's Board of Directors (the "Board") approved a stock repurchase program that provided for the repurchase of up to \$25 million of our outstanding common stock. During 2013, the Board approved \$195 million of increases to the program, increasing the aggregate authorized amount of the program to \$220 million. On February 6, 2013, the Board approved a modification to the program that permits the Company to also repurchase its common stock pursuant to a plan that meets the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934, as amended. On May 14, 2014, the Board approved an additional \$80 million increase to the program, resulting in an aggregate authorized purchase of \$300 million under the program and the repurchase period was extended through the end of 2016.

As of April 3, 2015, the Company had purchased 37.9 million shares of common stock under this program at a weighted average price of \$6.23 per share for an aggregate purchase price of \$237.5 million, including \$1.0 million of expenses. The remaining authorized amount for stock repurchases under this program was \$63.5 million as of April 3, 2015. For additional information, see "Item 2 - Unregistered sales of equity securities and use of proceeds" of this Quarterly Report on Form 10-Q.

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

The terms "Harmonic," the "Company," "we," "us," "its," and "our," as used in this Quarterly Report on Form 10-Q (this "Form 10-Q"), 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," "potential," or "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;
- the potential impact of our continuing stock repurchase plan;
- potential future acquisitions and dispositions;
- anticipated results of potential or actual litigation;
- our competitive environment;
- the impact of governmental regulation;
- anticipated revenue and expenses, including the sources of such revenue and expenses;
- expected impacts of changes in accounting rules;
- use of cash, cash needs and ability to raise capital; and
- the condition of our cash investments.

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 36 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.

OVERVIEW

We design, manufacture and sell versatile and high performance video infrastructure products and system solutions that enable our customers to efficiently create, prepare and deliver a full range of video and broadband services to consumer devices, including televisions, personal computers, laptops, tablets and smart phones. We operate in two segments, Video and Cable Edge. Our Video business sells video processing and 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 Cable Edge business sells cable edge solutions and related services, 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 on 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. Implementation issues with our products or those of other vendors have caused in the past, and may cause in the future, delays in project completion for our customers and delay our recognition of revenue.

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 ten largest customers in the three months ended April 3, 2015 accounted for approximately 44% of our net revenue, compared to 47% for the same period in 2014. 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 both of the three month periods ended April 3, 2015 and March 28, 2014, revenue from Comcast accounted for approximately 20% of our net revenue. The loss of Comcast or any other significant customer, any material reduction in orders by Comcast or 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 decreased \$4.0 million, or 4%, in the three months ended April 3, 2015 compared to the corresponding period in 2014. The decrease in net revenue was attributable to an \$11.9 million decrease in our Video segment revenue, offset in part by a \$7.9 million increase in our Cable Edge segment revenue. The decrease in Video segment revenue was primarily due to our customers delaying their investment spending in anticipation of the adoption of next generation technologies and architectures and continued softness in demand trends in Europe, the Middle East and Africa ("EMEA") and Asia-Pacific ("APAC") which were exacerbated by the continued strengthening of the U.S. dollar as over half our Video segment revenue is generated from international customers. The increase in Cable Edge segment revenue was primarily due to increased demand for our NSG Pro platform as we continued penetration into the Converged Cable Access Platform ("CCAP") market.

The delay by our customers in purchasing new solutions in anticipation of the adoption of next generation technologies and architectures, including the continued delays by new and existing broadcast and media company and service provider customers, first began in 2014 and we believe such delays could continue in varying degrees for the next several quarters. Meanwhile, our customers' consolidation activities are ongoing and may further contribute to investment uncertainties in the coming months.

As a result of the decrease in our net revenue and the continued uncertainty regarding the timing of our customers' investment decisions, we implemented restructuring plans to bring our operating expenses more in line with net revenues, while simultaneously implementing extensive, Company-wide expense control programs (See Note 9, "Restructuring and Related Charges" of the Notes to our Condensed Consolidated Financial Statements for additional information).

Our quarterly revenue has been, and may continue to be, affected by seasonal buying patterns. Typically, revenue in the first quarter of the year is seasonally lower than other quarters, as our customers often are still finalizing their annual budget and capital spending projections for the year. Further, we often recognize a substantial portion of our quarterly revenues in the last month of each 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 timing of revenue, particularly from large individual transactions, can cause significant fluctuations in operating results in a particular quarter.

As part of our business strategy, (1) from time to time we have acquired or invested in, and continue to consider acquiring or investing in, businesses, technologies, assets and product lines that we believe complement or may enhance or expand our existing business, and (2) from time to time we consider divesting a product line that we believe may no longer complement or expand our existing business. In March 2013, we completed the sale of our cable access HFC business to Aurora Networks, Inc. for \$46 million, and in 2014 we made strategic minority investments in three companies (See Note 4, "Investments in Other Equity Securities," of the notes to our Condensed Consolidated Financial Statements for additional information).

CRITICAL ACCOUNTING POLICIES, JUDGMENTS AND ESTIMATES



There have been no material changes to our critical accounting policies, judgments and estimates, during the three months ended April 3, 2015, from those disclosed in our 2014 Annual Report on Form 10-K (the "2014 Form 10-K").

RESULTS OF OPERATIONS

Net Revenue

Prior to the fourth quarter of 2014, we operated our business in one reportable segment. In connection with our 2015 annual planning process, we changed our operating segments to align with how our chief operating decision maker, which for us is our Chief Executive Officer, expected to evaluate the financial information used to allocate resources and assess our performance. The new reporting structure consists of two operating segments: Video and Cable Edge. As a result, the segment information presented has been conformed to the new operating segments for all prior periods.

The new 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 service providers as well as to broadcast and media companies, including streaming new media companies. The Cable Edge segment sells cable edge solutions and related services to cable operators globally.

The following table presents the breakdown of revenue by segment for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

	Three months ended				_		
	А	pril 3, 2015	Ma	arch 28, 2014	-	Q1 FY15 vs Q	1 FY14
Segment:							
Video	\$	69,282	\$	81,152	\$	(11,870)	(15)%
Cable Edge		34,734		26,880	_	7,854	29 %
Total	\$	104,016	\$	108,032	\$	(4,016)	(4)%
Segment revenue as a % of total net revenue:							
Video		67%		75%			
Cable Edge		33%		25%			

The following table presents the breakdown of revenue by geographical region for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

	Three months ended				_		
	Α	April 3, 2015		March 28, 2014		Q1 FY15 vs Q	1 FY14
Geography:							
Americas	\$	60,518	\$	64,886	\$	(4,368)	(7)%
EMEA		24,673		24,187		486	2 %
APAC		18,825		18,959		(134)	(1)%
Total	\$	104,016	\$	108,032	\$	(4,016)	(4)%
Regional revenue as a % of total net revenue:					-		
Americas		58%		60%			
EMEA		24%		22%			
APAC		18%		18%			

Our Video segment net revenue decreased \$11.9 million, or 15%, in the three months ended April 3, 2015, compared to the corresponding period in 2014, primarily due to a decrease in video product revenue, offset partially by an increase in video service revenue. The decrease in video product revenue spanned across all of our geographic regions, but was most notable with respect to North American service providers due to the investment pause of several of our customers as they looked ahead towards the industry's transition to Ultra HD and high-efficiency video coding ("HEVC") compression as well as new virtualized architectures for video processing. The decrease in video product revenue was also partly impacted by the strengthening of the U.S. dollar as over half of our video product revenue was derived from international customers. The increase in video service revenue spanned across almost all of our geographical regions, primarily due to an increase in the installed base of equipment being serviced.



Our Cable Edge segment net revenue increased \$7.9 million, or 29%, in the three months ended April 3, 2015, compared to the corresponding period in 2014. This increase was primarily attributable to increased sales of our NSG Pro CCAP products as we continued to expand our footprint across all geographical regions. Our NSG Pro platform continues to exhibit strong customer reception and acceptance. Over half of our Cable Edge revenue was derived from sales of our NSG Pro platform.

Net revenue in the Americas decreased \$4.4 million, or 7%, in the three months ended April 3, 2015, compared to the corresponding period in 2014. The increase in sales of our cable edge products to North American cable providers and production and playout products to the North American broadcast and media companies were more than offset by the decline in video processing products net revenue in the Americas, which was primarily due to the spending pause ahead of key technology transitions in the video products market. APAC net revenue in the three months ended April 3, 2015 was relatively flat compared to the corresponding period in 2014. The softer demand in video products in the APAC region was offset by strengthening demand for our cable edge products. EMEA net revenue increased \$0.5 million, or 2%, in the three months ended April 3, 2015 compared to the corresponding period in 2014. The increase in EMEA net revenue was primarily driven by expansion of our NSG Pro platform footprint in that region as well as increased service revenue, offset in part by softer demand from the broadcast and media vertical. The fragile economic and geopolitical climates in EMEA, coupled with the strengthening of the U.S. dollar, continue to drive the overall softness throughout Europe, especially Russia, Africa and certain parts of the Middle East.

Gross Profit

The following table presents the gross profit and gross profit as a percentage of net revenue ("gross margin") for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

		Three m	onths en	ded	_		
	Aj	pril 3, 2015	Ma	arch 28, 2014		Q1 FY15 vs Q	1 FY14
Gross profit	\$	55,028	\$	52,312	\$	2,716	5%
As a percentage of net revenue ("gross margin")		52.9%		48.4%			

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

Gross margin increased to 52.9% in the three months ended April 3, 2015 from 48.4% in the corresponding period in 2014, despite a revenue mix shift toward our lower margin cable edge products in the three months ended April 3, 2015. The increase in gross margin was primarily due to decreased expenses related to amortization of intangibles, a higher mix of software sold, and we also benefited from our improved operational efficiencies and supply chain management.

In the three months ended April 3, 2015, \$0.5 million of amortization of intangibles was included in cost of revenue, compared to \$4.7 million in the corresponding period in 2014. The decrease in amortization of intangibles expense in the three months ended April 3, 2015, compared to the corresponding period in 2014, was primarily due to certain purchased intangible assets becoming fully amortized.

Research and Development

The following table presents the research and development expenses and the expenses as a percentage of net revenue for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

	 Three 1	nonths e	nded	_		
	 April 3, 2015	N	larch 28, 2014	_	Q1 FY15 vs Q	1 FY14
Research and development	\$ 22,329	\$	23,888	\$	(1,559)	(7)%
As a percentage of net revenue	21.5	6	22.1%			

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.

The \$1.6 million, or 7%, decrease in research and development expenses in the three months ended April 3, 2015, compared to the corresponding period of 2014, was primarily attributable to decreased headcount and related expenses due to the reduction



in our worldwide workforce resulting from our 2013 restructuring plan, and to a lesser extent, due to a favorable impact from the strengthened U.S. dollar on our spending denominated in Israeli shekels.

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 months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

		Three m	onths er	ided			
	A	oril 3, 2015	M	arch 28, 2014	-	Q1 FY15 vs Q	1 FY14
Selling, general and administrative	\$	31,196	\$	33,547	\$	(2,351)	(7)%
As a percentage of net revenue		30.0%		31.1%			

The \$2.4 million, or 7%, decrease in selling, general and administrative expenses in the three months ended April 3, 2015, compared to the corresponding period of 2014, was primarily attributable to decreased legal and other professional fees related to our legal proceedings with Avid in 2014, decreased depreciation for demonstration equipment and cost containment effort in marketing related expenses.

Segment Operating Income

The following table presents a breakdown of operating income (loss) by segment for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

	Three months ended						
	Ар	oril 3, 2015	Mai	rch 28, 2014	_	Q1 FY15 vs (Q1 FY14
Video	\$	(90)	\$	2,435	\$	(2,525)	(104)%
Cable Edge		6,188		1,044		5,144	493 %
Total segment operating income	\$	6,098	\$	3,479	\$	2,619	75 %
Segment operating income (loss) as a % of segment revenue:					-		
Video		(0.1)%		3%			
Cable Edge		18 %		4%			

Video segment operating income decreased \$2.5 million in the three months ended April 3, 2015, compared to the corresponding period in 2014, and operating margin decreased from 3% to (0.1)%. The decrease in Video segment operating income and operating margin was primarily attributable to a 15% decrease in Video segment net revenue in 2015, offset partially by a reduction in selling, general and administrative expenses due to decreased legal and other professional fees, depreciation for demonstration equipment and cost containment effort in marketing related expenses.

Cable Edge segment operating income increased \$5.1 million for the three months ended April 3, 2015, compared to the corresponding period in 2014, and operating margin increased from 4% to 18%. The increase in Cable Edge segment operating income and margin was primarily attributable to a 29% increase in Cable Edge segment net revenue in 2015 and delivering more value to our customers in software, as well as efficiencies from manufacturing and overhead spending, especially for our NSG Pro products.



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

	Three mor	ths ended
Total segment operating income Unallocated corporate expenses Stock-based compensation Amortization of intangibles Income (loss) from operations Non-operating income (expense) Loss before income taxes	April 3, 2015	March 28, 2014
Total segment operating income	6,098	3,479
Unallocated corporate expenses	(44)	(228)
Stock-based compensation	(4,134)	(3,807)
Amortization of intangibles	(1,907)	(6,666)
Income (loss) from operations	13	(7,222)
Non-operating income (expense)	(2,956)	89
Loss before income taxes	\$ (2,943)	\$ (7,133)

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 months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

		Three m	onths end	led		
	Ар	ril 3, 2015	Mai	rch 28, 2014	Q1 FY15 vs Q	1 FY14
Amortization of intangibles	\$	1,446	\$	1,950	\$ (504)	(26)%
As a percentage of net revenue		1.4%		1.8%		

The decrease in amortization of intangibles expense in the three months ended April 3, 2015, compared to the corresponding period in 2014, was primarily due to certain purchased intangible assets becoming fully amortized.

Restructuring and Related Charges

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

We account for our restructuring plans under the authoritative guidance for exit or disposal activities. The restructuring and asset impairment charges are included in "Product 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 mo	nths en	nded
	April 3, 2015		March 28, 2014
Restructuring and related charges in:			
Product cost of revenue	\$ _	\$	79
Operating expenses-Restructuring and related charges	44		149
	\$ 44	\$	228

In the fourth quarter of 2014, our management approved a new restructuring plan (the "Harmonic 2015 Restructuring Plan") to reduce 2015 operating costs and the planned restructuring activities involve headcount reduction, exiting certain operating facilities and disposing excess assets. We began the restructuring activities pursuant to this plan in the fourth quarter of 2014 and expect to complete its actions by the end of 2015. We recorded \$2.2 million of restructuring and asset impairment charges recorded under this plan in the fourth quarter of 2014, consisting of a \$1.1 million fixed asset impairment charge related to software development costs incurred for a discontinued information technology ("IT") project, \$0.6 million of severance and benefits related to the termination of nineteen employees worldwide, \$0.3 million of excess material costs associated with the termination of a research and development project and \$0.1 million of other charges. In the three months ended April 3, 2015, we recorded an additional \$44,000 restructuring charges under this plan primarily related to severance and benefits for two employees.



In the three months ended March 28, 2014, we recorded \$0.2 million under our 2013 Restructuring Plan, which consisted of severance and benefits related to the termination of eight employees and costs associated with vacating from an excess facility in France. For a complete discussion of the restructuring actions related to the 2013 restructuring plan, see Note 11, "Restructuring and Asset Impairment Charges," of the notes to Consolidated Financial Statements in the 2014 Form 10-K.

Loss on Impairment of Long-term Investment

We attended a VJU iTV Development GmbH ("VJU") board meeting on March 5, 2015 as an observer. At that meeting, we were made aware of significant decreases in VJU's business prospects, VJU'S existing working capital and prospects for additional funding, compared to the prior information we had received from VJU. Based on our assessment, we determined that our investment in VJU was impaired on an other-than-temporary basis. Factors considered included the severity of the impairment and recent events specific to VJU. Based on our assessment of VJU's expected cash flows, the entire investment is expected to be non-recoverable. As a result, we recorded an impairment charge of \$2.5 million in the first quarter of 2015. Our impairment loss in VJU is limited to our initial cost of investment of \$2.5 million as well as the \$0.1 million research and development cost expensed in September 2014. (See Note 4, "Investments in Other Equity Securities", of the notes to our Condensed Consolidated Financial Statements for additional information).

Interest Income, Net

In the three months ended April 3, 2015 and March 28, 2014, interest income, net was \$55,000 and \$77,000, respectively.

Other Income (Expense), Net

Other income (expense), net is primarily comprised of foreign exchange gains and losses on cash, accounts receivable and inter-company balances denominated in currencies other than the U.S. dollar.

Other income (expense), net was \$(0.5) million and \$12,000, for the three months ended April 3, 2015 and March 28, 2014, respectively. The increase in other expense, net in the three months ended April 3, 2015, compared to the corresponding period of 2014, was primarily due to the unfavorable foreign exchange impact resulting from the weakening of the Euro. To mitigate the volatility related to fluctuations in foreign exchange rates, we may enter into various foreign currency forward contracts (See Note 5, "Derivatives and Hedging Activities," of the notes to our Condensed Consolidated Financial Statements for additional information).

Income Taxes

The following table presents the benefit from income taxes and the benefit as a percentage of net revenue for the three months ended April 3, 2015 and March 28, 2014 (in thousands, except percentages):

		Three mo	onths en	ded		
	April 3, 2015 March 28, 2014				Q1 FY15 vs	Q1 FY14
Benefit from income taxes	\$	(286)	\$	(1,723)	\$ 1,437	(83)%
As a percentage of net revenue		(0.3)%		(1.6)%		

We operate in multiple jurisdictions and our profits are taxed pursuant to the tax laws of these jurisdictions. Our 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, as well as recognition of uncertain tax benefits, the effects of statute of limitation, or settlement with tax authorities.

In the three months ended April 3, 2015, our effective income tax rate was 9.7%. The rate for the three months ended April 3, 2015 is lower than the U.S. federal statutory rate of 35% primarily because the loss before income taxes for three months ended April 3, 2015 included the loss on impairment of the VJU investment (see Note 4, "Investments in Other Equity Securities") for which no tax benefit can be recognized. The effective tax rate for the three months ended April 3, 2015 excluding the loss on impairment of VJU, would be approximately 65% and this is higher than the U.S. federal rate of 35% primarily due to an increase in our U.S. current and non-current income tax payable as well as maintaining a full valuation allowance against all of our U.S. deferred tax assets.

In the three months ended March 28, 2014, our effective rate was 24.2%, lower than the U.S. federal statutory rate of 35%, primarily due to favorable tax rates associated with certain earnings from operations in lower-tax jurisdictions, partially offset by the detriment from non-deductible stock-based compensation and non-deductible amortization of foreign intangibles, and



various net discrete tax adjustments. For three months ended March 28, 2014, the discrete adjustments to our tax benefit were primarily the accrual of interest on uncertain tax positions.

Liquidity and Capital Resources

As of April 3, 2015, our cash and cash equivalents totaled \$79.7 million, and our short-term investments totaled \$22.2 million, and a majority of our cash, cash equivalents and short-term investments as of April 3, 2015 were held in accounts in the United States. We believe that these funds are sufficient to meet the requirements of our operations in the next twelve months, as well as any stock repurchases under our present stock repurchase program. In the event that we need funds from our foreign subsidiaries to fund the operations in the U.S., and if U.S. tax has not already been previously provided, we may be required to accrue and pay additional U.S. taxes in order to repatriate these funds. However, our intent is to permanently reinvest these funds outside the U.S. and our current plans do not demonstrate a need to repatriate them to fund our U.S. operations.

In the event we need or desire to access funds from the short-term investments that we hold, it is possible that we may not be able to do so due to adverse market conditions. Our inability to sell all or a material portion of our short-term investments at par or our cost, or rating downgrades of issuers of these securities, could adversely affect our results of operations or financial condition. Nevertheless, we believe that our existing liquidity sources will satisfy our presently contemplated cash requirements for at least the next twelve months. However, if our expectations are incorrect, we may need to raise additional funds to fund our operations, to take advantage of unanticipated opportunities or to strengthen our financial position.

On December 22, 2014, we entered into a Credit Agreement with JPMorgan Chase Bank, N.A. ("JPMorgan") for a \$20.0 million revolving credit facility, with a sublimit of \$10.0 million for the issuance of commercial and standby letters of credit on our behalf. Revolving loans under the Credit Agreement may be borrowed, repaid and re-borrowed until December 22, 2015, at which time all amounts borrowed must be repaid. There were no borrowings under the Credit Agreement during the three months ended April 3, 2015. As of April 3, 2015, the amount available for borrowing under this facility, net of \$0.2 million of standby letters of credit, was \$19.8 million.

The revolving loan bears interest, at our election, at either (a) an adjusted LIBOR rate for a term of one, two or three months, plus an applicable margin of 1.75% or (b) the prime rate plus an applicable margin of -1.30%, provided that such rate shall not be less than the one month adjusted LIBOR rate, plus 2.5%. In the event that the balance of our accounts held with JPMorgan falls below \$30.0 million in aggregate total worldwide consolidated cash and short-term investments (the "Consolidated Cash Threshold") for five consecutive business days, we are obligated to pay a one-time facility fee of \$50,000 to JPMorgan. We are also obligated to pay JPMorgan a non-usage fee equal to the average daily unused portion of the credit facility multiplied by a per annum rate of 0.25% if, during any calendar month, the balance in our accounts held with JPMorgan falls below the Consolidated Cash Threshold for five consecutive business days.

We will pay a letter of credit fee with respect to any letters of credit issued under the Credit Agreement in an amount equal to (a) in the case of a standby letter of credit, the maximum amount available to be drawn under such standby letter of credit multiplied by a per annum rate of 1.75% and (b) in the case of a commercial letter of credit, the greater of \$100 or 0.75% of the original maximum available amount of such commercial letter of credit. We will also pay other customary transaction fees and costs in connection with the issuance of letters of credit under the Credit Agreement.

Obligations under the Credit Agreement are secured only by a pledge of 66 2/3% of our equity interests in our foreign subsidiary, Harmonic International AG. Additionally, to the extent that we form any direct or indirect, domestic, material subsidiaries in the future, those subsidiaries will be required to provide a guaranty of our obligations under the Credit Agreement.

The Credit Agreement contains customary affirmative and negative covenants, including covenants that limit our and our subsidiaries' ability to, among other things, incur indebtedness, grant liens, merge or consolidate, dispose of assets, make investments or pay dividends, in each case subject to certain exceptions. We are also required to maintain, on a consolidated basis, total cash and marketable securities of at least \$35.0 million and EBITDA of at least \$20.0 million determined on a rolling four-quarter basis. As of April 3, 2015, we were in compliance with the covenants under the Credit Agreement.

We regularly consider potential acquisitions that would complement our existing product offerings, enhance our technical capabilities or expand our marketing and sales presence. Any future transaction of this nature could require potentially significant amounts of capital or could require us to issue our stock and dilute existing stockholders. If adequate funds are not available, or are not available on acceptable terms, we may not be able to take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.



In addition, our ability to raise funds may be adversely affected by a number of factors relating to Harmonic, as well as factors beyond our control, including any global or regional economic slowdown, wars and conflicts, market uncertainty surrounding any necessary increases in the U.S. debt limit and its future debt obligations, and conditions in financial markets and the industries we serve. There can be no assurance that any financing will be available on terms acceptable to us, if at all.

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

	Three mo	nths end	ths ended		
Ар	ril 3, 2015	Ma	rch 28, 2014		
\$	2,028	\$	11,245		
	5,761		(2,133)		
	(1,030)		(30,267)		
	(135)		18		
\$	6,624	\$	(21,137)		
	4p \$ \$	April 3, 2015 \$ 2,028 5,761 (1,030) (135)	\$ 2,028 \$ 5,761 (1,030) (135)		

Operating Activities

Net cash provided by operations in the three months ended April 3, 2015 was \$2.0 million, resulting from a net loss of \$2.7 million, adjusted for \$12.2 million in non-cash gains and charges, and a \$7.5 million decrease in cash associated with the net change in operating assets and liabilities. The non-cash gains and charges primarily included amortization of intangible assets, stock-based compensation, depreciation and a \$2.5 million impairment loss on long-term investment. The net change in operating assets and liabilities primarily included increases in prepaid and other current assets and accounts receivables, as well as decreases in accrued liabilities, which were partially offset by increases in deferred revenue and accounts payable. The increase in prepaid and other current assets was primarily due to a \$14.2 million advance payment made to an inventory supplier in the first quarter of 2015 in order to secure more favorable pricing from the supplier. We anticipate that this amount will begin to offset in the fourth quarter of 2015 through the first quarter of 2016 against the accounts payable owed to this supplier. The decrease in accrued liabilities was primarily due to bonus payments and ESPP purchases made in the first quarter of 2015 and lower accruals for salaries and benefits at the end of the first quarter of 2015. The increase in deferred revenue was primarily due to the timing of periodic service and support billings for annual contracts.

Net cash provided by operations in the three months ended March 28, 2014 was \$11.2 million, resulting from a net loss of \$5.4 million, adjusted for \$18.6 million in non-cash gains and charges, and a \$2.0 million decrease in cash associated with the net change in operating assets and liabilities. The non-cash gains and charges primarily included amortization of intangible assets, stock-based compensation, depreciation, adjustments to deferred income taxes and provisions for excess and obsolete inventories, partially offset by a provision for doubtful accounts, returns and discounts. The net change in operating assets and liabilities and liabilities included increases in prepaid expenses and other assets and accounts receivable, as well as decreases in accrued and other liabilities and accounts payable, which were partially offset by a decrease in inventories, as well as an increase in deferred revenue. The increase in prepaid and other assets was primarily due to the increase in tax receivables resulting from a tax benefit from the loss on operations in the first quarter of fiscal 2014 and the tax effects associated with the write-off of certain fully reserved obsolete inventories, as well as the tax benefits on stock options exercised in the first quarter of fiscal 2014 and the decrease in inventories, as primarily due to the increase in the first quarter of fiscal 2014. The decrease in accrued and other liabilities was primarily due to the bonus payments made in the first quarter of fiscal 2014 and the decrease in inventory was primarily due to our concerted efforts to better optimize our supply chain. The increase in deferred revenue was primarily due to the timing of periodic service and support billings for annual contracts.

We expect that cash provided by 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. We usually pay our annual incentive compensation to employees in the first quarter.

Investing Activities

Net cash provided by investing activities was \$5.8 million in the three months ended April 3, 2015, resulting from the proceeds from the net sale and maturity of investments of \$9.5 million, partially offset by capital expenditures of \$3.7 million.

Net cash used in investing activities was \$2.1 million in the three months ended March 28, 2014, resulting from the purchase of short-term investments of \$14.1 million and capital expenditures of \$3.4 million, partially offset by the proceeds from the net sale and maturity of investments of \$15.4 million.

Financing Activities



Net cash used in financing activities was \$1.0 million in the three months ended April 3, 2015, primarily resulting from \$5.2 million of payments for the repurchase of common stock in connection with our stock repurchase program, partially offset by \$4.0 million of net proceeds from the issuance of common stock related to our equity incentive plans.

Net cash used in financing activities was \$30.3 million in the three months ended March 28, 2014, primarily resulting from \$29.1 million of payments for the repurchase of common stock in connection with our stock repurchase program and \$1.4 million of net payments relating to the repurchase of common stock issued to employees to satisfy employee tax withholding obligations that arose in connection with the vesting of restricted stocks units.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as of April 3, 2015.

Contractual Obligations and Commitments

As of April 3, 2015, we had approximately \$22.6 million of non-cancelable purchase order commitments. There were no other significant changes to our contractual obligations and commitments in the three months ended April 3, 2015, from such information presented in our 2014 Form 10-K.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact the operating results, financial position or our 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, as measured against the U.S. dollar and currencies held by our subsidiaries, and changes in the value of financial instruments held by us.

Foreign Currency Exchange Risk

We operate in international markets, which expose us to market risk associated with foreign currency exchange rate fluctuations between the U.S. Dollar and various foreign currencies.

We have certain international customers who are billed in their local currency, primarily the Euro, British pound and Japanese yen. Sales denominated in foreign currencies were approximately 10% and 11% of revenue in the first three months of 2015 and 2014, respectively. In addition, a portion of our operating expenses, primarily the cost of personnel to deliver technical support on our products and professional services, 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 Designated as Hedging Instruments (Cash Flow Hedges)

Beginning December 2014, we entered into forward currency contracts to hedge forecasted operating expenses and service cost related to employee salaries and benefits denominated in Israeli shekels ("ILS") for our subsidiaries in Israel. These ILS forward contacts mature generally within 12 months and are designated as cash flow hedges. The effective portion of the gains or losses on the derivative is reported as a component of "Accumulated other comprehensive income (loss)" ("OCI") in the Condensed Consolidated Balance Sheet and subsequently reclassified into earnings in the same period during which the hedged transactions are recognized in earnings. If the hedge program becomes ineffective or if the underlying forecasted transaction does not occur for any reason, or it becomes probable that it will not occur, the gain or loss on the related derivative will be reclassified from OCI to earnings immediately.

Derivatives Not Designated as Hedging Instruments (Balance Sheet Hedges)

We also enter into forward currency contracts to hedge foreign currency denominated monetary assets and liabilities. These derivative instruments are marked to market through earnings every 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, net and are largely offset by the changes in the fair value of the assets or liabilities being hedged.

The U.S. dollar equivalents of all outstanding notional amounts of foreign currency forward contracts are summarized as follows (in thousands):



	April 3, 2015		December 31, 2014	
Derivatives designated as cash flow hedges:				
Purchase	\$	12,728	\$	16,903
Derivatives not designated as hedging instruments:				
Purchase	\$	6,585	\$	1,043
Sell	\$	9,069	\$	4,925

Interest rate and credit risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio of marketable debt securities of various issuers, types and maturities and to our borrowings under the bank line of credit facility. As of April 3, 2015, our cash, cash equivalents and short-term investments balance was \$101.9 million and we had no borrowings during the three months ended April 3, 2015. Our short-term investments are classified as available for sale and are carried at estimated fair value with unrealized gains and losses reported in "accumulated other comprehensive income (loss)". For the first three months of 2015 and 2014, realized gains and realized losses from the sale of investments were not material. The \$0.5 million of unrealized gain from available-for-sale investments for the three months ended April 3, 2015 was primarily related to our investment in Vislink, plc ("Vislink"), a U.K. public company listed on the AIM exchange (See Note 4, "Investments in Other Equity Securities," of the notes to our Condensed Consolidated Financial Statements for additional information). As of April 3, 2015, our maximum exposure to loss from the Vislink investment was limited to our initial investment cost of \$3.3 million.

We do not use derivative instruments in our investment portfolio and our investment portfolio only includes highly liquid instruments. These instruments, as with all fixed income instruments, are subject to interest rate risk and will fall in value if market interest rates increase. Conversely, a decline in interest rates will decrease the interest income from our investment portfolio. We attempt to limit this exposure by investing primarily in short-term and investment-grade instruments with original maturities of less than two years.

We performed a sensitivity analysis to determine the impact a change in interest rates would have on the value of our investment portfolio. Based on our investment positions as of April 3, 2015, a hypothetical 100 basis point increase in interest rates would result in a \$0.1 million decline in fair market value of our portfolio. Such losses would only be realized if we sold the investments prior to maturity. A hypothetical decrease in market interest rates by 10% will result in a decline in interest income from our investment portfolio by less than \$0.1 million.

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.

During the quarterly period covered by this Form 10-Q, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.



PART II

OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

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. While certain matters to which the Company is 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.

In October 2011, Avid Technology, Inc. ("Avid") filed a complaint in the United States District Court for the District of Delaware alleging that Harmonic's Media Grid product infringes two patents held by Avid. A jury trial on this complaint commenced on January 23, 2014 and, on February 4, 2014, the jury returned a unanimous verdict in favor of Harmonic, rejecting Avid's infringement allegations in their entirety. On May 23, 2014, Avid filed a post-trial motion asking the court to set aside the jury's verdict, and the judge issued an order on December 17, 2014, denying the motion. On January 5, 2015, Avid filed an appeal with respect to the jury's verdict with the Federal Circuit, which was docketed on January 9, 2015, as Case No. 2015-1246. Avid filed its opening brief with respect to this appeal on March 24, 2015, and we filed our response brief on May 7, 2015.

In June 2012, Avid served a subsequent complaint in the United States District Court for the District of Delaware alleging that Harmonic's Spectrum product infringes one patent held by Avid. The complaint seeks 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. A hearing before the PTAB was conducted on May 20, 2014. On July 10, 2014, the PTAB issued a decision finding claims 1 - 10 invalid and claims 11 - 16 not invalid. Harmonic filed an appeal with respect to the PTAB's decision on claims 11 - 16 on September 11, 2014. The appeal was docketed with the Federal Circuit on October 22, 2014, as Case No. 2015-1072, and we filed our opening brief with respect to this appeal on January 29, 2015. Avid and PTAB each filed a response brief on April 27, 2015.

An unfavorable outcome on any litigation matter could require that Harmonic pay substantial damages, or, in connection with any intellectual property infringement claims, could require that the Company pay ongoing royalty payments or could prevent the Company from selling certain of its 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 Harmonic's business, operating results, financial position and cash flows.

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 the VOS software platform or the CCAP architecture;

- 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, and, in certain product lines, a number of other companies

including ATEME, Elemental Technologies, Envivio, Sumavision Technologies and Thomson Video Networks. 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 Edge business include Arris, Casa Systems and Cisco Systems

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; Tandberg Television was acquired by Ericsson; 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, 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 established 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 MPEG-4 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.

In order to attempt to meet fast paced, dynamic, evolving standards and customer requirements, we are intensifying our development efforts on a number of our product solutions in our Video and Cable Edge businesses. In 2014, we announced our VOS solution, a software-based, fully virtualized platform that we are developing to unify the entire media processing chain, from ingest to delivery, and which is designed to operate on common server hardware in data center environments. We also recently introduced the Electra XVM software product, our first video media processing and encoding product based on this platform. We believe some of our customers have been delaying their purchase decisions until products based on our new VOS software platform and incorporating Ultra HD and HEVC technologies are deployed, which has adversely affected our revenue from video products in recent periods. In our Cable Edge business, we recently introduced the NSG Exo distributed CCAP product, and we continue to develop, market and sell our NSG Pro centralized CCAP product solutions.

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 CCAP-based products) 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.

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 edge solutions, which combines edge QAM and CMTS functions in a single system in order to combine resources for video and data delivery. We believe CCAP-based systems will significantly reduce cable headend costs and increase operational efficiency, and are an important step in cable operators' transition to all-IP networks. We have begun to market and sell centralized and distributed CCAP-based products, and are developing the CMTS capabilities in our centralized CCAP products and universal edge QAM capabilities in our distributed CCAP products to make our products fully-compliant with current CCAP architecture standards. 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 systems may, over time, replace and make obsolete current cable edge QAM solutions, including our cable edge QAM products, as well as current CMTS solutions, which is a market our products have previously not addressed. If demand for our CCAP-based systems is weaker than expected, or sales of our CCAP-based systems do not adequately offset the expected decline in demand for our non-CCAP cable edge products, or the decline in demand for our non-CCAP cable edge products is more rapid and precipitous than expected, our near and long-term operating results, financial condition and cash flows could be adversely impacted. Moreover, if a new or competitive architecture for next-generation cable edge solutions is promulgated that renders our CCAP-based systems obsolete, our business may be adversely impacted.

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, HDTV, 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 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
- the introduction of new consumer devices, such as advanced set-top boxes, DVRs and NDVRs, 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, or the need of network operators to deliver a package of 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 such issues 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. in both the first three months of 2015 and 2014 represented approximately 50% of our revenue. 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, a significant percentage 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.

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 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;
- difficulty in 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, particularly in emerging market countries and/or similar anti-corruption and anti-bribery laws;

- 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 Russia and 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; 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 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 one supplier 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.

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 substantial majority, by dollar amount, of the products that we purchase from our contract manufacturers. Most of the products manufactured by our Israeli operations are outsourced to another third party manufacturer in Israel. 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 until October 2015.

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 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 position 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 the ownership of cable television and direct broadcast satellite system companies. Sales to our top ten customers in the first three months of 2015 and 2014 accounted for approximately 44% and 47% of our 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.

In both of the first three month periods of 2015 and 2014, revenue from Comcast accounted for approximately 20% our revenue, and further consolidation in the cable industry could lead to additional revenue concentration for us. The loss of Comcast or any other significant customer, any material reduction in orders by Comcast or any other significant customer, or our failure to qualify our new products with a significant customer could materially and adversely affect, either long term or in a particular quarter, our operating results, financial condition and cash flows. 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, value-added 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 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, 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.

We may not be able to effectively manage our operations or implement strategic organizational initiatives.

We have grown significantly, principally through acquisitions, and expanded our international operations. Upon the closing of our acquisition of Scopus in 2009, we added 221 employees, most of whom are based in Israel. Upon the closing of the acquisition of Omneon in 2010, we added 286 employees, most of whom are based in the U.S.

As of April 3, 2015, we had 480 employees in our international operations, representing approximately 48% 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, 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.

The fact that our employees are spread out in offices around the world also may present additional challenges when we initiate certain strategic initiatives. For example, we have an ongoing program to increase the efficiency and effectiveness of our worldwide sales organization. There can be no assurance that this initiative will achieve success or improve our revenue, operating results or financial condition. We may encounter communication, coordination, management and motivational challenges as we work to align our global sales teams with the stated objectives of this program, which could cause disruptions and delays within the sales organization and in their sales activities. In addition, the investment and costs associated with this strategic initiative may be greater than anticipated, and may outweigh any benefits achieved, which could adversely affect our operating results.

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

We outsource a portion of our research and development activities 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 in Ukraine to other locations or countries. The resulting delays could negatively impact our product development efforts, operating results and our business.

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

As of April 3, 2015, we maintained facilities in two locations in Israel with a total of 167 employees, or approximately 17% of our worldwide workforce. Our employees in Israel engage in a number of activities, 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 11% of those employees were called for active military duty in 2014. 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 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 foreign 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;
- 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;

- 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;
- 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;
- whether the research and development tax is renewed for 2015 and beyond;

• 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

• 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 the 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 United States, 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 \$29.0 million in 2014 against U.S. net deferred tax assets.

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. In addition, recent statements from the Internal Revenue Service have indicated their intent to seek greater disclosure by companies of their reserves for uncertain tax positions.

We continue to be in the process of expanding our international operations and staffing to better support our expansion into international markets. This expansion involves the implementation of an international structure that includes, among other things, an international support center in Europe, a research and development cost sharing arrangement, and certain licenses and other contractual arrangements between us and our wholly-owned domestic and foreign subsidiaries. As a result of these changes, we anticipate that our consolidated pre-tax income will 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.

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. For example, in October 2011, Avid Technology, Inc. filed a complaint against us in the United States District Court for the District of Delaware alleging that our MediaGrid product infringes two patents held by Avid. In February 2014, a jury determined that we had not infringed on either of these patents. Avid has filed an appeal with respect to the jury's verdict and the appeal has been docketed with the Federal Circuit. Although we have been able to successfully defend ourselves against the allegations by Avid to date, we may in the future be subject to additional allegations of infringement. 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 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. 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;
- 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;
- 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 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.

As of April 3, 2015, we had approximately \$198 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 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. For example, in February 2013, we entered into an Asset Purchase Agreement with Aurora Networks, Inc. pursuant to which we agreed to sell our cable access HFC Business for \$46 million in cash. Any such 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 may experience varying success in reducing fixed costs or transferring liabilities previously associated with the divested business.

Our operating results could be adversely affected by natural disasters affecting the Company 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 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.

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, 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 and ownership of inventions, we generally do not have employment contracts or noncompetition agreements with any of 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.

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 of Directors 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 April 3, 2015, we held 55 issued U.S. patents and 34 issued foreign patents, and had 22 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 generally 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.



Recently reported hacking attacks on government and commercial computer systems, particularly attacks sponsored by foreign governments or enterprises, raise the risks that such an attack may compromise, in a material respect, one or more of our computer systems and permit hackers access to our proprietary information and data. If such an attack does, in fact, allow access to or theft of our proprietary information or data, our business, operating results, financial condition and cash flows could be materially and adversely affected.

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.

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 cannot assure you that our stock repurchase program will result in repurchases of our common stock or enhance long term stockholder value, and repurchases, if any, could affect our stock price and increase its volatility and will diminish our cash reserves.

In April 2013, our Board of Directors approved a modified "Dutch Auction" tender offer to repurchase up to \$100 million of shares of our common stock. The tender offer expired on May 24, 2013, and resulted in our repurchasing approximately 12 million shares of our common stock, at \$6.25 per share, for an aggregate purchase price of approximately \$75 million.

Following the tender offer, we resumed purchases under our stock repurchase program. Under the program, we are authorized to repurchase up to \$300 million of our common stock in open market transactions or pursuant to any trading plan that may be adopted in accordance with Rule 10b5-1 of the Exchange Act. As of April 3, 2015, we had purchased an aggregate of \$237 million of our common stock under this program, including under the tender offer. The timing and actual number of shares repurchased, if any, will depend on a variety of factors, including the price and availability of our shares, trading volume, general market conditions and projected cash positions. The program was suspended prior to the announcement of the tender offer, and may be suspended or discontinued at any time in the future without prior notice.



Repurchases pursuant to our tender offer and our stock repurchase program could affect our stock price and increase its volatility and will reduce the market liquidity for our stock. Additionally, these repurchases will diminish our cash reserves, which could impact our ability to pursue possible future strategic opportunities and acquisitions and would result in lower overall returns on our cash balances. There can be no assurance that any stock repurchases will, in fact, occur, or, if they occur, that they will enhance stockholder value because the market price of our common stock may decline below the levels at which we repurchased shares of stock. Although our tender offer and our stock repurchase program are intended to enhance long-term stockholder value, short-term stock price fluctuations could reduce the effectiveness of these repurchases.

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

Our products are subject to U.S. export controls, and may be exported outside the U.S. only with the required level of export license or through an export license exception, in most cases because we incorporate encryption technology into our products. 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. Changes in our products or changes in export and import regulations may delay the introduction of our products in international markets, prevent our customers with international operations from deploying our products throughout their global systems or, in some cases, prevent the export or import of our products to certain countries altogether. Any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential international customers.

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 on terms acceptable to us.

We have been engaged in the design, manufacture and sale of a variety of video products and system solutions since inception, which has required, and will continue to require, significant research and development expenditures.

We believe that our existing cash and short-term investments of approximately \$102 million at April 3, 2015, even as it may be reduced through possible future repurchases of our common stock under the stock repurchase program discussed above, 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 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.

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 new requirements under the Dodd-Frank Act of 2010 that will 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 new 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, "net neutrality" rules proposed by the U.S. Federal Communications Commission (FCC) aimed at regulating Internet service as a Title II telecommunications service, 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 of Directors. 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 of Directors;
- · controlling the procedures for conducting and scheduling of Board of Directors and stockholder meetings; and
- providing the Board of Directors 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.

Our common stock price 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;
- the repurchase of over 30% of our outstanding shares since 2012 pursuant to our ongoing stock repurchase program and the tender offer we completed in 2013, as well as any future repurchases under our stock repurchase program;
- 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 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 Employee Stock Purchase Plan, and in connection with grants of RSUs on an ongoing basis. Increased sales of our common stock in the market after exercise of outstanding stock options or grants of RSUs 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.



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

On April 24, 2012, our Board of Directors approved a stock repurchase program that provided for the repurchase of up to \$25 million of our outstanding common stock during the term of the program. In 2013, our Board of Directors approved a \$195 million increase in the program, including a \$75 million increase on January 28, 2013, a \$35 million increase to the program upon the closing of a sale of our HFC business on February 19, 2013 and an additional \$85 million increase to the program on July 16, 2013. On May 14, 2014, our Board of Directors approved an additional \$80 million increase to the program, resulting in an aggregate authorized purchase of \$300 million under the program and the repurchase period was extended through the end of 2016.

Under the program, we are authorized to repurchase shares of common stock in open market transactions or pursuant to any trading plan that may be adopted in accordance with Rule 10b5-1 of the Exchange Act. The timing and actual number of shares repurchased, if any, will depend on a variety of factors, including the price and availability of our shares, trading volume and general market conditions. The program may be suspended or discontinued at any time without prior notice.

As of April 3, 2015, we had purchased 37.9 million shares of common stock under this program at a weighted average price of \$6.23 per share for an aggregate purchase price of \$237.5 million, including \$1.0 million of expenses. The remaining authorized amount for stock repurchases under this program was \$63.5 million as of April 3, 2015.

The table below sets forth the stock repurchase activity for the quarter ended April 3, 2015 (in thousands, except per share amounts):

Period	Total Number of Shares Repurchased	Average Price Paid per Share	Total Number of Shares Repurchased as Part of Publicly Announced Plan or Program	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Program
January 1, 2015 - January 30, 2015		\$ —		\$ 68,654
January 31, 2015 - February 27, 2015	197	\$ 7.87	197	\$ 67,103
February 28, 2015 - April 3, 2015	477	\$ 7.62	477	\$ 63,472
	674	\$ 7.69	674	

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit <u>Number</u>	Exhibit Index
3.2(1)	Amended and Restated Bylaws of Harmonic Inc.
31.1(1)	Section 302 Certification of Principal Executive Officer
31.2(1)	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
- The following materials from Registrant's Quarterly Report on Form 10-Q for the quarter ended April 3, 2015, formatted in Extensible Business Reporting Language (XBRL) includes:

(i) Condensed Consolidated Balance Sheets at April 3, 2015 and December 31, 2014, (ii) Condensed Consolidated Statements of Operations for the three months ended April 3, 2015 and March 28, 2014, (iii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three months ended April 3, 2015 and March 28, 2014, (iv) Condensed Consolidated Statements of Cash Flows for the three months ended April 3, 2015 and March 28, 2014, (iv) Condensed Consolidated Statements of Cash Flows for the three months ended April 3, 2015 and March 28, 2014, (iv) Condensed Consolidated Statements of Cash Flows for the three months ended April 3, 2015 and March 28, 2014, (iv) Condensed Consolidated Financial Statements.

(1) Filed herewith

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/ Carolyn V. Aver

Carolyn V. Aver Chief Financial Officer (Principal Financial and Accounting Officer) Date: May 11, 2015

56

EXHIBIT 3.2

AMENDED AND RESTATED

BYLAWS

OF

HARMONIC INC. (a Delaware corporation)

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE I CORPORATE OFFICES	1
1.1 REGISTERED OFFICE	1
1.2 OTHER OFFICES	1
ARTICLE II MEETINGS OF STOCKHOLDERS	1
2.1 PLACE OF MEETINGS	1
2.2 ANNUAL MEETING	1
2.3 SPECIAL MEETING	2
2.4 NOTICE OF STOCKHOLDERS' MEETINGS	2
2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND STOCKHOLDER BUSINESS	2
2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE	5
2.7 QUORUM	6
2.8 ADJOURNED MEETING; NOTICE	6
2.9 VOTING	7
2.10 VALIDATION OF MEETINGS; WAIVER OF NOTICE; CONSENT	7
2.11 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING	7
2.12 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING	8
2.13 PROXIES	8
2.14 ORGANIZATION	9
2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE	9
2.16 INSPECTORS OF ELECTION	9
ARTICLE III DIRECTORS	10
3.1 POWERS	10
3.2 NUMBER OF DIRECTORS	10
3.3 ELECTION AND TERM OF OFFICE OF DIRECTORS	10
3.4 RESIGNATION AND VACANCIES	11
3.5 REMOVAL OF DIRECTORS	12
3.6 PLACE OF MEETINGS; MEETINGS BY TELEPHONE	12
3.7 FIRST MEETINGS	12
3.8 REGULAR MEETINGS	12
3.9 SPECIAL MEETINGS; NOTICE	13
3.10 QUORUM	13
3.11 WAIVER OF NOTICE	13
3.12 ADJOURNMENT	14
3.13 NOTICE OF ADJOURNMENT	14

3.14 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING	14
3.15 FEES AND COMPENSATION OF DIRECTORS	14
3.16 APPROVAL OF LOANS TO OFFICERS	14
3.17 SOLE DIRECTOR PROVIDED BY CERTIFICATE OF INCORPORATION	14
ARTICLE IV COMMITTEES	15
4.1 COMMITTEES OF DIRECTORS	15
4.2 MEETINGS AND ACTION OF COMMITTEES	15
4.3 COMMITTEE MINUTES	16
ARTICLE V OFFICERS	16
5.1 OFFICERS	16
5.2 ELECTION OF OFFICERS	16
5.3 SUBORDINATE OFFICERS	16
5.4 REMOVAL AND RESIGNATION OF OFFICERS	17
5.5 VACANCIES IN OFFICES	17
5.6 CHAIRMAN OF THE BOARD	17
5.7 PRESIDENT	17
5.8 VICE PRESIDENTS	18
5.9 SECRETARY	18
5.10 CHIEF FINANCIAL OFFICER	18
5.11 ASSISTANT SECRETARY	19
5.12 ADMINISTRATIVE OFFICERS	19
5.13 AUTHORITY AND DUTIES OF OFFICERS	19
ARTICLE VI INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES AND OTHER AGENTS	19
6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS	19
6.2 INDEMNIFICATION OF OTHERS	20
6.3 INSURANCE	21
ARTICLE VII RECORDS AND REPORTS	21
7.1 MAINTENANCE AND INSPECTION OF RECORDS	21
7.2 INSPECTION BY DIRECTORS	21
7.3 ANNUAL STATEMENT TO STOCKHOLDERS	21
7.4 REPRESENTATION OF SHARES OF OTHER CORPORATIONS	22
7.5 CERTIFICATION AND INSPECTION OF BYLAWS	22
ARTICLE VIII GENERAL MATTERS	22
8.1 RECORD DATE FOR PURPOSES OTHER THAN NOTICE AND VOTING	22
8.2 CHECKS; DRAFTS; EVIDENCES OF INDEBTEDNESS	22
8.3 CORPORATE CONTRACTS AND INSTRUMENTS: HOW EXECUTED	23
8.4 STOCK CERTIFICATES; TRANSFER; PARTLY PAID SHARES	23

8.5 SPECIAL DESIGNATION ON CERTIFICATES	24
8.6 LOST CERTIFICATES	24
8.7 TRANSFER AGENTS AND REGISTRARS	24
8.8 CONSTRUCTION; DEFINITIONS	24
ARTICLE IX AMENDMENTS	25
ARTICLE X DISSOLUTION	25
ARTICLE XI CUSTODIAN	26
11.1 APPOINTMENT OF A CUSTODIAN IN CERTAIN CASES	26
11.2 DUTIES OF CUSTODIAN	26

AMENDED AND RESTATED

BYLAWS

OF

HARMONIC INC. (a Delaware corporation)

ARTICLE I

CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the corporation shall be fixed in the certificate of incorporation of the corporation.

1.2 OTHER OFFICES

The board of directors may at any time establish branch or subordinate offices at any place or places where the corporation is qualified to do business.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place within or outside the State of Delaware designated by the board of directors. In the absence of any such designation, stockholders' meetings shall be held at the principal executive office of the corporation.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held each year on a date and at a time designated by the board of directors. In the absence of such designation, the annual meeting of stockholders shall be held on the first Tuesday in May in each year at 9:00 a.m. However, if such day falls on a legal holiday, then the meeting shall be held at the same time and place on the next succeeding full business day. At the meeting, directors shall be elected, and any other proper business may be transacted.

-1-

2.3 SPECIAL MEETING

A special meeting of the stockholders may be called at any time by the board of directors, the chairman of the board of directors, or by the president, but such special meetings may not be called by any other person or persons except as otherwise required by General Corporation Law of Delaware or Section 3.4 herein. Only such business shall be considered at a special meeting of stockholders as shall have been stated in the notice for such meeting.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings of stockholders shall be sent or otherwise given in accordance with Section 2.5 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting. The notice shall specify the place, date and hour of the meeting and (i) in the case of a special meeting, the purpose or purposes for which the meeting is called (no business other than that specified in the notice may be transacted) or (ii) in the case of the annual meeting, those matters which the board of directors, at the time of giving the notice, intends to present for action by the stockholders (but any proper matter may be presented at the meeting for such action). The notice of any meeting at which directors are to be elected shall include the name of any nominee or nominees who, at the time of the notice, the board intends to present for election. Any previously scheduled meeting of the stockholders may be postponed, and (unless the certificate of incorporation otherwise provides) any special meeting of the stockholders may be cancelled, by resolution of the board of directors upon public notice given prior to the date previously scheduled for such meeting of stockholders.

2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND STOCKHOLDER BUSINESS

(a) To be properly brought before an annual meeting or special meeting, nominations for the election of directors or other business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the board of directors, (ii) otherwise properly brought before the meeting by or at the direction of the board of directors or (iii) otherwise properly brought before the meeting by or at the direction of the board of directors or (iii) otherwise properly brought before the meeting by a stockholder who (x) is a stockholder of record at the time of the giving of notice required by this Section 2.5 and on the record date for the determination of stockholders entitled to vote at the meeting and (y) has timely complied in proper written form with the notice procedures set forth in this Section 2.5. In addition, for business to be properly brought before an annual meeting by a stockholder, such business must be a proper matter for stockholder action pursuant to these bylaws and applicable law. Except as otherwise required by General Corporation Law of Delaware or Section 3.4 herein, stockholders may not bring business before a special meeting of stockholders.

(b) For business to be properly brought before an annual meeting by a stockholder, the stockholder must have given timely notice thereof in proper written form to the Secretary of the corporation. To be timely, a stockholder's notice must be received by the Secretary at the principal executive offices of the corporation not less than sixty (60) calendar days nor earlier than ninety (90) calendar days before the one-year anniversary of the date of the preceding year's

-2-

annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the preceding year or the date of the annual meeting has been changed by more than thirty (30) days from the date of the preceding year's annual meeting, then notice by the stockholder to be timely must be so received not later than the close of business on the later of (i) ninety (90) calendar days prior to such annual meeting, or (ii) ten (10) calendar days following the day on which Public Announcement (as defined below) of the date of such annual meeting is first made. In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described in this Section 2.5. "Public Announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or any successor thereto (the "1934 Act"). To be in proper written form, a stockholder's notice to the Secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting: (1) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (2) the name and address, as they appear on the corporation's books, of the stockholder proposing such business and any Stockholder Associated Person (as defined below), (3) the class and number of shares of the corporation which are held of record or are beneficially owned by the stockholder or any Stockholder Associated Person and any derivative positions held or beneficially held by the stockholder or any Stockholder Associated Person, (4) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect of which is to mitigate loss to, or manage the risk or benefit from share price changes for, or increase or decrease the voting power of, such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, (5) any material interest of the stockholder or a Stockholder Associated Person in such business and (6) a statement whether either such stockholder or any Stockholder Associated Person will deliver a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry the proposal (such information provided and statements made as required by clauses (1) through (6) constitute a "Business Solicitation Statement"). In addition, to be in proper written form, a stockholder's notice to the Secretary must be supplemented not later than ten (10) calendar days following the record date to disclose the information contained in clauses (3) and (4) above as of the record date (the "Supplement"). For purposes of this Section 2.5, a "Stockholder Associated Person" of any stockholder shall mean (x) any person controlling, directly or indirectly, or acting in concert with, such stockholder, (y) any beneficial owner of shares of stock of the corporation owned of record or beneficially by such stockholder and on whose behalf the proposal or nomination, as the case may be, is being made, or (z) any person controlling, controlled by or under common control with such person referred to in the preceding clauses (x) and (y). Without exception, no business proposed by a stockholder shall be conducted at any annual meeting except in accordance with the procedures set forth in this Section 2.5. In addition, business proposed to be brought by a stockholder may not be brought before the annual meeting if such stockholder or a Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Business Solicitation Statement

-3-

or if the Business Solicitation Statement contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the meeting that business was not properly brought before the meeting and in accordance with the provisions of this Section 2.5, and, if the chairperson should so determine, he or she shall so declare at the meeting that any such business not properly brought before the meeting shall not be transacted.

(c) Only persons who are nominated in accordance with the procedures set forth in this Section 2.5(c) shall be eligible for election as directors. Nominations of persons for election to the board of directors of the corporation may be made at an annual meeting of stockholders by or at the direction of the board of directors or by any stockholder of the corporation entitled to vote in the election of directors at the meeting who timely complies with the notice procedures set forth in this paragraph 2.5(c). To be timely, such nominations, other than those made by or at the direction of the board of directors, shall be made pursuant to the notice provisions of Section 2.5(b), and shall be in proper written form as set forth in this Section 2.5(c). Nominations of persons for election to the board of directors of the corporation may be made at a special meeting of stockholders by a stockholder (if the business to be conducted at such meeting, as specified in the notice described in Section 2.4(i), includes the election of directors) if the notice required by this Section 2.5(c) shall be delivered to the Secretary of the corporation not later than the close of business on the later of ninety (90) calendar days prior to such special meeting or ten (10) calendar days following the day on which Public Announcement (as defined above) is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. To be in proper written form, a stockholder's notice delivered pursuant to this Section 2.5(c) shall set forth (i) as to each person (a "nominee") whom the stockholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of the nominee, (B) the principal occupation or employment of the nominee, (C) the class and number of shares of the corporation which are held of record or are beneficially owned by the nominee and any derivative positions held or beneficially held by the nominee, (D) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of the nominee with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or manage the risk or benefit from share price changes for, or increase or decrease the voting power of the nominee with respect to any securities of the corporation, (E) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder, (F) a written statement executed by the nominee acknowledging that as a director of the corporation, the nominee will owe fiduciary duties under Delaware law with respect to the corporation and its stockholders, and (G) any other information relating to the nominee that would be required to be disclosed about such nominee if proxies were being solicited for the election of the nominee as a director, or is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation the nominee's written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected); and (ii) as to such stockholder giving notice, (x) the information required to be provided in a stockholder's notice pursuant to clauses (2) through (5) of Section 2.5(b) and the Supplement

-4-

referenced in Section 2.5(b) (except that the references to "business" in such Section 2.5(b) shall instead refer to nominations of directors for purposes of this Section 2.5(c)), and (y) a statement whether either such stockholder or Stockholder Associated Person will deliver a proxy statement and form of proxy to holders of a number of the corporation's voting shares reasonably believed by such stockholder or Stockholder Associated Person to be necessary to elect such nominee(s) (such information provided and statements made as required by preceding clauses (i) and (ii) above constitute a "Nominee Solicitation Statement"). At the request of the board of directors, any person nominated by a stockholder for election as a director shall furnish to the Secretary of the corporation (1) that information required to be set forth in the stockholder's Nominee Solicitation Statement as of a date subsequent to the date on which the notice of such person's nomination was given and (2) such other information as may reasonably be required by the corporation to determine the eligibility of such proposed nominee to serve as independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such nominee; in the absence of the furnishing of such information if requested, such stockholder's nomination shall not be considered in proper form pursuant to this Section 2.5(c). Without exception, no person nominated by a stockholder shall be eligible for election or re-election as a director of the corporation unless nominated in accordance with the procedures set forth in this Section 2.5(c). In addition, a nominee shall not be eligible for election or re-election if a stockholder or Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Nominee Solicitation Statement or if the Nominee Solicitation Statement contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the meeting shall, if the facts warrants, determine and declare at the meeting that a nomination was not made in accordance with the procedures prescribed by these bylaws, and if the chairperson should so determine, he or she shall so declare at the meeting, and the defective nomination shall be disregarded.

(d) In addition to the foregoing provisions of this Section 2.5, a stockholder must also comply with all applicable requirements of state law and of the 1934 Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.5, including with respect to business such stockholder intends to bring before the annual meeting that involves a proposal or nomination that such stockholder requests to be included in the corporation's proxy statement, the requirements of Rule 14a-8 (or any successor provision) under the 1934 Act. Nothing in this Section 2.5 shall be deemed to affect any right of the corporation to omit a proposal from the corporation's proxy statement pursuant to Rule 14a-8 (or any successor provision) under the 1934 Act.

2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of stockholders shall be given either personally or by first-class mail or by telegraphic or other written communication. Notices not personally delivered shall be sent charges prepaid and shall be addressed to the stockholder at the address of that stockholder appearing on the books of the corporation or given by the stockholder to the corporation for the purpose of notice. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by telegram or other means of written communication. If any notice

-5-

addressed to a stockholder at the address of that stockholder appearing on the books of the corporation is returned to the corporation by the United States Postal Service marked to indicate that the United States Postal Service is unable to deliver the notice to the stockholder at that address, then all future notices or reports shall be deemed to have been duly given without further mailing if the same shall be available to the stockholder on written demand of the stockholder at the principal executive office of the corporation for a period of one (1) year from the date of the giving of the notice.

An affidavit of the mailing or other means of giving any notice of any stockholders' meeting, executed by the secretary, assistant secretary or any transfer agent of the corporation giving the notice, shall be prima facie evidence of the giving of such notice.

2.7 QUORUM

The holders of a majority in voting power of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy at the meeting, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairman of the meeting or (ii) the holders of a majority of the shares represented at the meeting and entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting in accordance with Section 2.8 of these bylaws.

When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which, by express provision of the laws of the State of Delaware or of the certificate of incorporation or these bylaws, a different vote is required, in which case such express provision shall govern and control the decision of the question.

If a quorum be initially present, the stockholders may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum, if any action taken is approved by a majority of the stockholders initially constituting the quorum.

2.8 ADJOURNED MEETING; NOTICE

Any stockholders' meeting, annual or special, whether or not a quorum is present, may be adjourned from time to time by (i) the chairman of the meeting or (ii) the stockholders by the vote of the holders of a majority of the shares represented at that meeting and entitled to vote thereat, either in person or by proxy. In the absence of a quorum, no other business may be transacted at that meeting except as provided in Section 2.7 of these bylaws.

When a meeting is adjourned to another time and place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. In no event shall the public announcement of an adjournment of a stockholders meeting commence a new time period for the

-6-

giving of a stockholder's notice as described in Section 2.5(b) or 2.5(c) herein. At the adjourned meeting the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.9 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.12 of these bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners, and to voting trusts and other voting agreements).

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder. Any stockholder entitled to vote on any matter may vote part of the shares in favor of the proposal and refrain from voting the remaining shares or, except when the matter is the election of directors, may vote them against the proposal; but, if the stockholder fails to specify the number of shares which the stockholder is voting affirmatively, it will be conclusively presumed that the stockholder's approving vote is with respect to all shares which the stockholder is entitled to vote.

2.10 VALIDATION OF MEETINGS; WAIVER OF NOTICE; CONSENT

The transactions of any meeting of stockholders, either annual or special, however called and noticed, and wherever held, shall be as valid as though they had been taken at a meeting duly held after regular call and notice, if a quorum be present either in person or by proxy, and if, either before or after the meeting, each person entitled to vote, who was not present in person or by proxy, signs a written waiver of notice or a consent to the holding of the meeting or an approval of the minutes thereof. The waiver of notice or consent or approval need not specify either the business to be transacted or the purpose of any annual or special meeting of stockholders. All such waivers, consents, and approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

Attendance by a person at a meeting shall also constitute a waiver of notice of and presence at that meeting, except when the person objects at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened. Attendance at a meeting is not a waiver of any right to object to the consideration of matters required by law to be included in the notice of the meeting but not so included, if that objection is expressly made at the meeting.

2.11 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Any action required or permitted to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing setting forth the action so taken shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action

-7-

at a meeting at which all shares entitled to vote thereon were present and voted. Such consents shall be delivered to the corporation by delivery to it registered office in the state of Delaware, its principal place of business, or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

2.12 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING

For purposes of determining the stockholders entitled to notice of any meeting or to vote thereat or entitled to give consent to corporate action without a meeting, the board of directors may fix, in advance, a record date, which shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors and which shall not be more than sixty (60) days nor less than ten (10) days before the date of any such meeting, and in such event only stockholders of record on the date so fixed are entitled to notice and to vote, notwithstanding any transfer of any shares on the books of the corporation after the record date.

If the board of directors does not so fix a record date:

(a) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the business day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held; and

(b) the record date for determining stockholders entitled to give consent to corporate action in writing without a meeting, (i) when no prior action by the board is required, shall be the day on which the first written consent is delivered to the corporation as provided in Section 2.3(b) of the General Corporation Law of Delaware, or (ii) when prior action by the board is required, shall be at the close of business on the day on which the board adopts the resolution relating to that action.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting unless the board of directors fixes a new record date for the adjourned meeting, but the board of directors shall fix a new record date if the meeting is adjourned for more than thirty (30) days from the date set for the original meeting.

The record date for any other purpose shall be as provided in Section 8.1 of these bylaws.

2.13 PROXIES

Every person entitled to vote for directors, or on any other matter, shall have the right to do so either in person or by one or more agents authorized by a written proxy signed by the person and filed with the secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission, telefacsimile or otherwise) by the stockholder or the stockholder's

-8-

attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the General Corporation Law of Delaware.

2.14 ORGANIZATION

The president, or in the absence of the president, the chairman of the board, shall call the meeting of the stockholders to order, and shall act as chairman of the meeting. In the absence of the president, the chairman of the board, and all of the vice presidents, the stockholders shall appoint a chairman for such meeting. The chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such matters as the regulation of the manner of voting and the conduct of business. The secretary of the corporation shall act as secretary of all meetings of the stockholders, but in the absence of the secretary at any meeting of the stockholders, the chairman of the meeting may appoint any person to act as secretary of the meeting.

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

2.16 INSPECTORS OF ELECTION

Before any meeting of stockholders, the board of directors may appoint an inspector or inspectors of election to act at the meeting or its adjournment. If no inspector of election is so appointed, then the chairman of the meeting may, and on the request of any stockholder or a stockholder's proxy shall, appoint an inspector or inspectors of election to act at the meeting. The number of inspectors shall be either one (1) or three (3). If inspectors are appointed at a meeting pursuant to the request of one (1) or more stockholders or proxies, then the holders of a majority of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, then the chairman of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy.

Such inspectors shall:

(a) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

-9-

- (b) receive votes, ballots or consents;
- (c) hear and determine all challenges and questions in any way arising in connection with the right to vote;
- (d) count and tabulate all votes or consents;
- (e) determine when the polls shall close;
- (f) determine the result; and
- (g) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

ARTICLE III

DIRECTORS

3.1 POWERS

Subject to the provisions of the General Corporation Law of Delaware and to any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the corporation shall be managed and shall be exercised by or under the direction of the board of directors. In addition to the powers and authorities these bylaws expressly confer upon them, the board of directors may exercise all such powers of the corporation and do all such lawful acts and things as are not by the General Corporation Law of Delaware or by the certificate of incorporation or by these bylaws required to be exercised or done by the stockholders.

3.2 NUMBER OF DIRECTORS

The board of directors shall consist of eight (8) members. The number of directors may be changed by an amendment to this bylaw, duly adopted by the board of directors or by the stockholders, or by a duly adopted amendment to the certificate of incorporation. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

3.3 ELECTION AND TERM OF OFFICE OF DIRECTORS

Except as provided in Section 3.4 of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director, including a director elected or appointed to fill a vacancy, shall hold office until the expiration of the term for

-10-

which elected and until such director's successor has been elected and qualified or until such director's earlier resignation or removal.

3.4 RESIGNATION AND VACANCIES

Any director may resign effective on giving written notice to the chairman of the board, the president, the secretary or the board of directors, unless the notice specifies a later time for that resignation to become effective. If the resignation of a director is effective at a future time, the board of directors may elect a successor to take office when the resignation becomes effective.

Vacancies in the board of directors may be filled by a majority of the remaining directors, even if less than a quorum, or by a sole remaining director; however, a vacancy created by the removal of a director by the vote of the stockholders or by court order may be filled only by the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute a majority of the required quorum). Each director so elected shall hold office until the next annual meeting of the stockholders and until a successor has been elected and qualified.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

Any directors chosen pursuant to this Section 3.4 shall hold office for a term expiring at the next annual meeting of stockholders and until such director's successor shall have been duly elected and qualified.

If at any time, by reason of death or resignation or other cause, the corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the General Corporation Law of Delaware.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board (as constituted immediately prior to any

-11-

such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the General Corporation Law of Delaware as far as applicable.

3.5 REMOVAL OF DIRECTORS

Unless otherwise restricted by statute, by the certificate of incorporation or by these bylaws, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided, however, that, if and so long as stockholders of the corporation are entitled to cumulative voting, if less than the entire board is to be removed, no director may be removed without cause if the votes cast against his removal would be sufficient to elect him if then cumulatively voted at an election of the entire board of directors.

3.6 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

Regular meetings of the board of directors may be held at any place within or outside the State of Delaware that has been designated from time to time by resolution of the board. In the absence of such a designation, regular meetings shall be held at the principal executive office of the corporation. Special meetings of the board may be held at any place within or outside the State of Delaware that has been designated in the notice of the meeting or, if not stated in the notice or if there is no notice, at the principal executive office of the corporation.

Any meeting of the board, regular or special, may be held by conference telephone or similar communication equipment, so long as all directors participating in the meeting can hear one another; and all such participating directors shall be deemed to be present in person at the meeting.

3.7 FIRST MEETINGS

The first meeting of each newly elected board of directors shall be held at such time and place as shall be fixed by the vote of the stockholders at the annual meeting. In the event of the failure of the stockholders to fix the time or place of such first meeting of the newly elected board of directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the board of directors, or as shall be specified in a written waiver signed by all of the directors.

3.8 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time as shall from time to time be determined by the board of directors. If any regular meeting day shall fall on a

-12-

legal holiday, then the meeting shall be held at the same time and place on the next succeeding full business day.

3.9 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board of directors, the president, any vice president, the secretary or any two directors.

The person or persons authorized to call special meetings of the board of directors may fix the time and place of the meetings. Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail, courier service or telegram, telecopy or other electronic or wireless means, charges prepaid, addressed to each director at that director's address as it is shown on the records of the corporation. If the notice is by mail, such notice shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is by courier service, telegram, overnight mail, telecopy or other electronic or wireless means, such notice shall be deemed adequately delivered when the notice is transmitted at least twenty-four (24) hours prior to the time set for such meeting. If the notice is by telephone or by hand delivery, such notice shall be deemed adequately delivered when the notice is given at least twenty-four (24) hours prior to the time set for such meeting. Any oral notice given personally or by telephone may be communicated either to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the corporation.

3.10 QUORUM

A majority of the authorized number of directors shall constitute a quorum for the transaction of business, except to adjourn as provided in Section 3.12 of these bylaws. Every act or decision done or made by a majority of the directors present at a duly held meeting at which a quorum is present shall be regarded as the act of the board of directors, subject to the provisions of the certificate of incorporation and applicable law.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the quorum for that meeting.

3.11 WAIVER OF NOTICE

Notice of a meeting need not be given to any director (i) who signs a waiver of notice, whether before or after the meeting, or (ii) who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such directors. All such waivers shall be filed with the corporate records or made part of the minutes of the meeting. A waiver of notice need not specify the purpose of any regular or special meeting of the board of directors.

-13-

3.12 ADJOURNMENT

A majority of the directors present, whether or not constituting a quorum, may adjourn any meeting of the board to another time and place.

3.13 NOTICE OF ADJOURNMENT

Notice of the time and place of holding an adjourned meeting of the board need not be given unless the meeting is adjourned for more than twenty-four (24) hours. If the meeting is adjourned for more than twenty-four (24) hours, then notice of the time and place of the adjourned meeting shall be given before the adjourned meeting takes place, in the manner specified in Section 3.9 of these bylaws, to the directors who were not present at the time of the adjournment.

3.14 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Any action required or permitted to be taken by the board of directors may be taken without a meeting, provided that all members of the board individually or collectively consent in writing to that action. Such action by written consent shall have the same force and effect as a unanimous vote of the board of directors. Such written consent and any counterparts thereof shall be filed with the minutes of the proceedings of the board of directors.

3.15 FEES AND COMPENSATION OF DIRECTORS

Directors and members of committees may receive such compensation, if any, for their services and such reimbursement of expenses as may be fixed or determined by resolution of the board of directors. This Section 3.15 shall not be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee or otherwise and receiving compensation for those services.

3.16 APPROVAL OF LOANS TO OFFICERS

The corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or any of its subsidiaries, including any officer or employee who is a director of the corporation or any of its subsidiaries, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the board of directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing contained in this section shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

3.17 SOLE DIRECTOR PROVIDED BY CERTIFICATE OF INCORPORATION

In the event only one director is required by these bylaws or the certificate of incorporation, then any reference herein to notices, waivers, consents, meetings or other actions by a majority or quorum of the directors shall be deemed to refer to such notice, waiver, etc., by such sole director,



who shall have all the rights and duties and shall be entitled to exercise all of the powers and shall assume all the responsibilities otherwise herein described as given to the board of directors.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The board of directors may, by resolution adopted by a majority of the authorized number of directors, designate one (1) or more committees, each consisting of two or more directors, to serve at the pleasure of the board. The board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. The appointment of members or alternate members of a committee requires the vote of a majority of the authorized number of directors. Any committee, to the extent provided in the resolution of the board, shall have and may exercise all the powers and authority of the board, but no such committee shall have the power or authority to (i) amend the certificate of incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the board of directors as provided in Section 151(a) of the General Corporation Law of Delaware, fix the designations and any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the corporation), (ii) adopt an agreement of merger or consolidation under Sections 251 or 252 of the General Corporation Law of Delaware, (iii) recommend to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, (iv) recommend to the stockholders a dissolution of the corporation or a revocation of a dissolution or (v) amend the bylaws of the corporation; and, unless the board resolution establishing the committee, the bylaws or the certificate of incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of Delaware.

4.2 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the following provisions of Article III of these bylaws: Section 3.6 (place of meetings; meetings by telephone), Section 3.8 (regular meetings), Section 3.9 (special meetings; notice), Section 3.10 (quorum), Section 3.11 (waiver of notice), Section 3.12 (adjournment), Section 3.13 (notice of adjournment) and Section 3.14 (board action by written consent without meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the board of directors or by resolution of the committee, that special meetings of committees may also be called by resolution of

-15-

the board of directors, and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

4.3 COMMITTEE MINUTES

Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

ARTICLE V

OFFICERS

5.1 OFFICERS

The Corporate Officers of the corporation shall be a president, a secretary and a chief financial officer. The corporation may also have, at the discretion of the board of directors, a chairman of the board, one or more vice presidents (however denominated), one or more assistant secretaries, one or more assistant treasurers and such other officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws. Any number of offices may be held by the same person.

In addition to the Corporate Officers of the Company described above, there may also be such Administrative Officers of the corporation as may be designated and appointed from time to time by the president of the corporation in accordance with the provisions of Section 5.12 of these bylaws.

5.2 ELECTION OF OFFICERS

The Corporate Officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 or Section 5.5 of these bylaws, shall be chosen by the board of directors, subject to the rights, if any, of an officer under any contract of employment, and shall hold their respective offices for such terms as the board of directors may from time to time determine.

5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or may empower the president to appoint, such other Corporate Officers as the business of the corporation may require, each of whom shall hold office for such period, have such power and authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

The president may from time to time designate and appoint Administrative Officers of the corporation in accordance with the provisions of Section 5.12 of these bylaws.

-16-

5.4 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of a Corporate Officer under any contract of employment, any Corporate Officer may be removed, either with or without cause, by the board of directors at any regular or special meeting of the board or, except in case of a Corporate Officer chosen by the board of directors, by any Corporate Officer upon whom such power of removal may be conferred by the board of directors.

Any Corporate Officer may resign at any time by giving written notice to the corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the Corporate Officer is a party.

Any Administrative Officer designated and appointed by the president may be removed, either with or without cause, at any time by the president. Any Administrative Officer may resign at any time by giving written notice to the president or to the secretary of the corporation.

5.5 VACANCIES IN OFFICES

A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in these bylaws for regular appointments to that office.

5.6 CHAIRMAN OF THE BOARD

The chairman of the board, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise such other powers and perform such other duties as may from time to time be assigned to him by the board of directors or as may be prescribed by these bylaws. If there is no president, then the chairman of the board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

5.7 PRESIDENT

Subject to such supervisory powers, if any, as may be given by the board of directors to the chairman of the board, if there be such an officer, the president shall be the chief executive officer of the corporation and shall, subject to the control of the board of directors, have general supervision, direction and control of the business and the officers of the corporation. He or she shall preside at all meetings of the stockholders and, in the absence or nonexistence of a chairman of the board, at all meetings of the board of directors. He or she shall have the general powers and duties of management usually vested in the office of president of a corporation, and shall have such other powers and perform such other duties as may be prescribed by the board of directors or these bylaws.

5.8 VICE PRESIDENTS

In the absence or disability of the president, and if there is no chairman of the board, the vice presidents, if any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the board of directors, these bylaws, the president or the chairman of the board.

5.9 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of the board of directors, committees of directors and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the board of directors, a share register or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of carcellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the board of directors required to be given by law or by these bylaws. He or she shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these bylaws.

5.10 CHIEF FINANCIAL OFFICER

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings and shares. The books of account shall at all reasonable times be open to inspection by any director for a purpose reasonably related to his position as a director.

The chief financial officer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositaries as may be designated by the board of directors. He or she shall disburse the funds of the corporation as may be ordered by the board of directors, shall render to the president and directors, whenever they request it, an account of all of his or her transactions as chief financial officer and of the financial condition of the corporation, and shall have

-18-

such other powers and perform such other duties as may be prescribed by the board of directors or these bylaws.

5.11 ASSISTANT SECRETARY

The assistant secretary, if any, or, if there is more than one, the assistant secretaries in the order determined by the board of directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

5.12 ADMINISTRATIVE OFFICERS

In addition to the Corporate Officers of the corporation as provided in Section 5.1 of these bylaws and such subordinate Corporate Officers as may be appointed in accordance with Section 5.3 of these bylaws, there may also be such Administrative Officers of the corporation as may be designated and appointed from time to time by the president of the corporation. Administrative Officers shall perform such duties and have such powers as from time to time may be determined by the president or the board of directors in order to assist the Corporate Officers in the furtherance of their duties. In the performance of such duties and the exercise of such powers, however, such Administrative Officers shall have limited authority to act on behalf of the corporation as the board of directors shall establish, including but not limited to limitations on the dollar amount and on the scope of agreements or commitments that may be made by such Administrative Officers on behalf of the corporation, which limitations may not be exceeded by such individuals or altered by the president without further approval by the board of directors.

5.13 AUTHORITY AND DUTIES OF OFFICERS

In addition to the foregoing powers, authority and duties, all officers of the corporation shall respectively have such authority and powers and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors.

ARTICLE VI

INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES AND OTHER AGENTS

6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS

The corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware as the same now exists or may hereafter be amended, indemnify any person against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with any threatened, pending or completed action, suit, or proceeding in which such person was or is a party or is threatened to be made a party by reason of the fact that such person is or was a director or officer of the corporation. For purposes of this Section 6.1, a "director" or "officer" of the corporation shall mean any person (i) who is or was a director or officer of the corporation, (ii) who is or was serving at the request of the corporation as a

-19-

director or officer of another corporation, partnership, joint venture, trust or other enterprise or (iii) who was a director or officer of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

The corporation shall be required to indemnify a director or officer in connection with an action, suit, or proceeding (or part thereof) initiated by such director or officer only if the initiation of such action, suit, or proceeding (or part thereof) by the director or officer was authorized by the board of Directors of the corporation.

The corporation shall pay the expenses (including attorney's fees) incurred by a director or officer of the corporation entitled to indemnification hereunder in defending any action, suit or proceeding referred to in this Section 6.1 in advance of its final disposition; provided, however, that payment of expenses incurred by a director or officer of the corporation in advance of the final disposition of such action, suit or proceeding shall be made only upon receipt of an undertaking by the director or officer to repay all amounts advanced if it should ultimately be determined that the director or officer is not entitled to be indemnified under this Section 6.1 or otherwise.

The rights conferred on any person by this Article shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the corporation's certificate of incorporation, these bylaws, agreement, vote of the stockholders or disinterested directors or otherwise.

Any repeal or modification of the foregoing provisions of this Article shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

6.2 INDEMNIFICATION OF OTHERS

The corporation shall have the power, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware as the same now exists or may hereafter be amended, to indemnify any person (other than directors and officers) against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with any threatened, pending or completed action, suit, or proceeding, in which such person was or is a party or is threatened to be made a party by reason of the fact that such person is or was an employee or agent of the corporation. For purposes of this Section 6.2, an "employee" or "agent" of the corporation (other than a director or officer) shall mean any person (i) who is or was an employee or agent of the corporation, (ii) who is or was serving at the request of the corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise or (iii) who was an employee or agent of a corporation which was a predecessor corporation of the corporation or of another enterprise at the request of such predecessor corporation.

6.3 INSURANCE

The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of the General Corporation Law of Delaware.

ARTICLE VII

RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS

The corporation shall, either at its principal executive office or at such place or places as designated by the board of directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books and other records of its business and properties.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the corporation at its registered office in Delaware or at its principal place of business.

7.2 INSPECTION BY DIRECTORS

Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders and its other books and records for a purpose reasonably related to his or her position as a director.

7.3 ANNUAL STATEMENT TO STOCKHOLDERS

The board of directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the corporation.



7.4 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairman of the board, if any, the president, any vice president, the chief financial officer, the secretary or any assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent and exercise on behalf of this corporation all rights incident to any and all shares of the stock of any other corporation or corporations standing in the name of this corporation. The authority herein granted may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

7.5 CERTIFICATION AND INSPECTION OF BYLAWS

The original or a copy of these bylaws, as amended or otherwise altered to date, certified by the secretary, shall be kept at the corporation's principal executive office and shall be open to inspection by the stockholders of the corporation, at all reasonable times during office hours.

ARTICLE VIII

GENERAL MATTERS

8.1 RECORD DATE FOR PURPOSES OTHER THAN NOTICE AND VOTING

For purposes of determining the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not precede the date upon which the resolution fixing the record date is adopted and which shall not be more than sixty (60) days before any such action. In that case, only stockholders of record at the close of business on the date so fixed are entitled to receive the dividend, distribution or allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any shares on the books of the corporation after the record date so fixed, except as otherwise provided by law.

If the board of directors does not so fix a record date, then the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the board of directors adopts the applicable resolution.

8.2 CHECKS; DRAFTS; EVIDENCES OF INDEBTEDNESS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

-22-

8.3 CORPORATE CONTRACTS AND INSTRUMENTS: HOW EXECUTED

The board of directors, except as otherwise provided in these bylaws, may authorize and empower any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such power and authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.4 STOCK CERTIFICATES; TRANSFER; PARTLY PAID SHARES

The shares of the corporation shall be represented by certificates, provided that the board of directors of the corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding the adoption of such a resolution by the board of directors, every holder of stock represented by certificates and, upon request, every holder of uncertificated shares, shall be entitled to have a certificate signed by, or in the name of the corporation by, the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of such corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

Certificates for shares shall be of such form and device as the board of directors may designate and shall state the name of the record holder of the shares represented thereby; its number; date of issuance; the number of shares for which it is issued; a summary statement or reference to the powers, designations, preferences or other special rights of such stock and the qualifications, limitations or restrictions of such preferences and/or rights, if any; a statement or summary of liens, if any; a conspicuous notice of restrictions upon transfer or registration of transfer, if any; a statement as to any applicable voting trust agreement; if the shares be assessable, or, if assessments are collectible by personal action, a plain statement of such facts.

Upon surrender to the secretary or transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the corporation in the case of uncertificated partly paid shares, the total amount of the consideration to

-23-

be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.5 SPECIAL DESIGNATION ON CERTIFICATES

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.6 LOST CERTIFICATES

Except as provided in this Section 8.6, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The board of directors may, in case any share certificate or certificate for any other security is lost, stolen or destroyed, authorize the issuance of replacement certificates on such terms and conditions as the board may require; the board may require indemnification of the corporation secured by a bond or other adequate security sufficient to protect the corporation against any claim that may be made against it, including any expense or liability, on account of the alleged loss, theft or destruction of the certificate or the issuance of the replacement certificate.

8.7 TRANSFER AGENTS AND REGISTRARS

The board of directors may appoint one or more transfer agents or transfer clerks, and one or more registrars, each of which shall be an incorporated bank or trust company — either domestic or foreign, who shall be appointed at such times and places as the requirements of the corporation may necessitate and the board of directors may designate.

8.8 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction and definitions in the General Corporation Law of Delaware shall govern the construction of these bylaws. Without limiting the generality of this provision, as used in these bylaws, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both an entity and a natural person.

-24-

ARTICLE IX

AMENDMENTS

The original or other bylaws of the corporation may be adopted, amended or repealed by the stockholders entitled to vote; provided, however, that the corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

Whenever an amendment or new bylaw is adopted, it shall be copied in the book of bylaws with the original bylaws, in the appropriate place. If any bylaw is repealed, the fact of repeal with the date of the meeting at which the repeal was enacted or the filing of the operative written consent(s) shall be stated in said book.

ARTICLE X

DISSOLUTION

If it should be deemed advisable in the judgment of the board of directors of the corporation that the corporation should be dissolved, the board, after the adoption of a resolution to that effect by a majority of the whole board at any meeting called for that purpose, shall cause notice to be mailed to each stockholder entitled to vote thereon of the adoption of the resolution and of a meeting of stockholders to take action upon the resolution.

At the meeting a vote shall be taken for and against the proposed dissolution. If a majority of the outstanding stock of the corporation entitled to vote thereon votes for the proposed dissolution, then a certificate stating that the dissolution has been authorized in accordance with the provisions of Section 275 of the General Corporation Law of Delaware and setting forth the names and residences of the directors and officers shall be executed, acknowledged, and filed and shall become effective in accordance with Section 103 of the General Corporation Law of Delaware. Upon such certificate's becoming effective in accordance with Section 103 of the General Corporation shall be dissolved.

Whenever all the stockholders entitled to vote on a dissolution consent in writing, either in person or by duly authorized attorney, to a dissolution, no meeting of directors or stockholders shall be necessary. The consent shall be filed and shall become effective in accordance with Section 103 of the General Corporation Law of Delaware. Upon such consent's becoming effective in accordance with Section 103 of the General Corporation Law of Delaware, the corporation shall be dissolved. If the consent is signed by an attorney, then the original power of attorney or a photocopy thereof shall be attached to and filed with the consent. The consent filed with the Secretary of State shall have attached to it the affidavit of the secretary or some other officer of the corporation stating that the consent has been signed by or on behalf of all the stockholders entitled to vote on a dissolution; in addition, there shall be attached to the consent a certification by the secretary or some other officer

-25-

of the corporation setting forth the names and residences of the directors and officers of the corporation.

ARTICLE XI

CUSTODIAN

11.1 APPOINTMENT OF A CUSTODIAN IN CERTAIN CASES

The Court of Chancery, upon application of any stockholder, may appoint one or more persons to be custodians and, if the corporation is insolvent, to be receivers, of and for the corporation when:

(i) at any meeting held for the election of directors the stockholders are so divided that they have failed to elect successors to directors whose terms have expired or would have expired upon qualification of their successors; or

(ii) the business of the corporation is suffering or is threatened with irreparable injury because the directors are so divided respecting the management of the affairs of the corporation that the required vote for action by the board of directors cannot be obtained and the stockholders are unable to terminate this division; or

(iii) the corporation has abandoned its business and has failed within a reasonable time to take steps to dissolve, liquidate or distribute its assets.

11.2 DUTIES OF CUSTODIAN

The custodian shall have all the powers and title of a receiver appointed under Section 291 of the General Corporation Law of Delaware, but the authority of the custodian shall be to continue the business of the corporation and not to liquidate its affairs and distribute its assets, except when the Court of Chancery otherwise orders and except in cases arising under Sections 226(a)(3) or 352(a) (2) of the General Corporation Law of Delaware.

Effective March 11, 2015

-26-

Harmonic Inc. Certification of Principal Executive Officer Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002

I, Patrick J. Harshman, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Harmonic Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant, and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 11, 2015

By: /s/ Patrick J. Harshman

Patrick J. Harshman President and Chief Executive Officer (Principal Executive Officer)

Harmonic Inc. Certification of Principal Financial Officer Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002

I, Carolyn V. Aver, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Harmonic Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant, and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 11, 2015

By: /s/ Carolyn V. Aver

Carolyn V. Aver Chief Financial Officer (Principal Financial Officer)

Harmonic Inc. Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

As of the date hereof, I, Patrick J. Harshman, President and Chief Executive Officer of Harmonic Inc. (the "Company"), certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Company's Quarterly Report on Form 10-Q for the quarter ended April 3, 2015, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This written statement is being furnished to the Securities and Exchange Commission as an exhibit accompanying such Report and shall not be deemed filed pursuant to the Securities Exchange Act of 1934, as amended.

Date: May 11, 2015

/s/ Patrick J. Harshman

Patrick J. Harshman President and Chief Executive Officer (Principal Executive Officer)

Harmonic Inc. Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

As of the date hereof, I, Carolyn V. Aver, Chief Financial Officer of Harmonic Inc. (the "Company"), certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Company's Quarterly Report on Form 10-Q for the quarter ended April 3, 2015, as filed with the Securities and Exchange Commission (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This written statement is being furnished to the Securities and Exchange Commission as an exhibit accompanying such Report and shall not be deemed filed pursuant to the Securities Exchange Act of 1934, as amended.

Date: May 11, 2015

/s/ Carolyn V. Aver

Carolyn V. Aver Chief Financial Officer (Principal Financial Officer)