

# ANALOGIC CORP

## FORM 10-Q (Quarterly Report)

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Symbol ALOG  
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Industry Advanced Medical Equipment & Technology  
Sector Healthcare  
Fiscal Year 07/31

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

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**FORM 10-Q**

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

For the quarterly period ended October 31, 2016

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 0-6715

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**ANALOGIC CORPORATION**

(Exact name of registrant as specified in its charter)

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Massachusetts  
(State or other jurisdiction of  
incorporation or organization)

04-2454372  
(I.R.S. Employer  
Identification No.)

8 Centennial Drive, Peabody, Massachusetts  
(Address of principal executive offices)

01960  
(Zip Code)

(978) 326-4000  
(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report.)

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

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

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

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

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

As of November 30, 2016, there were 12,455,849 shares of common stock outstanding.

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ANALOGIC CORPORATION  
Form 10Q – Quarterly Report  
For the Quarterly Period Ended October 31, 2016  
**TABLE OF CONTENTS**

	<u>Page No.</u>
<b><u>Part I. Financial Information</u></b>	
Item 1. <a href="#">Financial Statements (Unaudited)</a>	
<a href="#">Consolidated Balance Sheets as of October 31, 2016 and July 31, 2016</a>	3
<a href="#">Consolidated Statements of Operations for the Three Months Ended October 31, 2016 and 2015</a>	4
<a href="#">Consolidated Statements of Comprehensive Income for the Three Months Ended October 31, 2016 and 2015</a>	5
<a href="#">Consolidated Statements of Cash Flows for the Three Months Ended October 31, 2016 and 2015</a>	6
<a href="#">Notes to Consolidated Financial Statements</a>	7
Item 2. <a href="#">Management’s Discussion and Analysis of Financial Condition and Results of Operations</a>	20
Item 3. <a href="#">Quantitative and Qualitative Disclosures About Market Risk</a>	26
Item 4. <a href="#">Controls and Procedures</a>	26
<b><u>Part II. Other Information</u></b>	
Item 1. <a href="#">Legal Proceedings</a>	27
Item 1A. <a href="#">Risk Factors</a>	27
Item 2. <a href="#">Unregistered Sales of Equity Securities and Use of Proceeds</a>	27
Item 6. <a href="#">Exhibits</a>	27
<a href="#">Signatures</a>	28

## Part I. FINANCIAL INFORMATION

## Item 1. Financial Statements (Unaudited)

**ANALOGIC CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**  
(Unaudited in thousands, except share and per share data)

	October 31, 2016	July 31, 2016
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 141,952	\$ 118,697
Accounts receivable, net of allowance for doubtful accounts of \$1,118 and \$1,070 as of October 31, 2016 and July 31, 2016, respectively	91,932	112,412
Inventory	145,305	145,513
Income tax receivable	5,710	3,004
Prepaid expenses and other current assets	11,067	9,178
<b>Total current assets</b>	<u>395,966</u>	<u>388,804</u>
Property, plant, and equipment, net	108,051	107,790
Intangible assets, net	43,195	45,194
Goodwill	73,915	73,915
Deferred income taxes	8,843	10,671
Other assets	4,407	6,523
<b>Total assets</b>	<u>\$ 634,377</u>	<u>\$ 632,897</u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable	\$ 31,330	\$ 28,575
Accrued employee compensation and benefits	18,590	18,108
Accrued income tax	2,826	1,610
Accrued warranty	6,234	6,296
Accrued restructuring charges	2,545	5,248
Deferred revenue	4,531	5,359
Customer deposits	3,572	3,476
Contingent consideration	4,551	4,534
Other current liabilities	5,207	5,261
<b>Total current liabilities</b>	<u>79,386</u>	<u>78,467</u>
Long-term liabilities:		
Accrued income taxes, net of current portion	2,514	2,174
Contingent consideration, net of current portion	7,752	7,705
Other long-term liabilities	11,251	13,374
<b>Total long-term liabilities</b>	<u>21,517</u>	<u>23,253</u>
Guarantees, commitments and contingencies (Note 15)		
Stockholders' equity:		
Common stock, \$0.05 par value; 30,000,000 shares authorized and 12,450,846 shares issued and outstanding as of October 31, 2016; 30,000,000 shares authorized and 12,396,765 shares issued and outstanding as of July 31, 2016	622	619
Capital in excess of par value	151,753	149,005
Retained earnings	391,289	390,013
Accumulated other comprehensive loss	(10,190)	(8,460)
<b>Total stockholders' equity</b>	<u>533,474</u>	<u>531,177</u>
<b>Total liabilities and stockholders' equity</b>	<u>\$ 634,377</u>	<u>\$ 632,897</u>

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

**ANALOGIC CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Unaudited, in thousands, except per share data)**

	<b>Three Months Ended</b>	
	<b>October 31,</b>	
	<b>2016</b>	<b>2015</b>
Net revenue:		
Product	\$ 120,245	\$ 114,129
Engineering	873	819
Total net revenue	<u>121,118</u>	<u>114,948</u>
Cost of sales:		
Product	68,759	62,947
Engineering	723	1,062
Total cost of sales	<u>69,482</u>	<u>64,009</u>
Gross profit	<u>51,636</u>	<u>50,939</u>
Operating expenses:		
Research and product development	15,850	17,239
Selling and marketing	18,180	15,233
General and administrative	13,621	13,196
Restructuring	32	3,283
Total operating expenses	<u>47,683</u>	<u>48,951</u>
Income from operations	<u>3,953</u>	<u>1,988</u>
Other expense, net	<u>(442)</u>	<u>(458)</u>
Income before income taxes	3,511	1,530
Provision for income taxes	980	154
Net income	<u>\$ 2,531</u>	<u>\$ 1,376</u>
Net income per common share:		
Basic	\$ 0.20	\$ 0.11
Diluted	\$ 0.20	\$ 0.11
Weighted average shares outstanding:		
Basic	12,419	12,427
Diluted	12,616	12,607
Dividends declared and paid per share	\$ 0.10	\$ 0.10

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

**ANALOGIC CORPORATION**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
**(Unaudited, in thousands)**

	<b>Three Months Ended</b>	
	<b>October 31,</b>	
	<b>2016</b>	<b>2015</b>
Net income	\$ 2,531	\$ 1,376
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustment, net of tax	(1,574)	(519)
Unrecognized gain on pension benefits, net of tax	58	—
Unrealized (loss) gain on foreign currency forward contracts, net of tax	(214)	112
Total other comprehensive loss, net of tax	(1,730)	(407)
Total comprehensive income	\$ 801	\$ 969

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

**ANALOGIC CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Unaudited, in thousands)

	Three Months Ended October 31,	
	2016	2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 2,531	\$ 1,376
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for (benefit from) deferred income taxes	1,909	(71)
Depreciation and amortization	5,536	5,648
Share-based compensation expense	1,659	2,382
Write down of demo equipment to net realizable value	456	553
Provision for excess and obsolescence inventory	392	62
Excess tax benefit from share-based compensation	(5)	(68)
Change in fair value of contingent consideration	64	—
Provision for doubtful accounts, net of recovery	48	16
Gain on sale of property, plant and equipment	(3)	—
Net changes in operating assets and liabilities:		
Accounts receivable	19,995	25,401
Inventory	(2,111)	(12,794)
Prepaid expenses and other assets	139	(2,239)
Accounts payable	2,679	2,250
Accrued liabilities	(2,491)	(7,453)
Deferred revenue	(791)	(54)
Customer deposits	98	(12)
Accrued income taxes and income taxes receivable	(1,521)	(1,604)
Other liabilities	(2,061)	298
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<b>26,523</b>	<b>13,691</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Additions to property, plant, and equipment	(3,282)	(2,820)
Proceeds from the sale of property, plant, and equipment	69	—
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(3,213)</b>	<b>(2,820)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Issuance of stock pursuant to exercise of stock options, employee stock purchase plan, restricted stock plans, and non-employee director stock plan	2,336	1,194
Repurchase of common stock	—	(3,608)
Shares repurchased for taxes for vested employee restricted stock grants	(826)	(618)
Excess tax benefit from share-based compensation	5	68
Dividends paid to shareholders	(1,242)	(1,244)
<b>NET CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES</b>	<b>273</b>	<b>(4,208)</b>
<b>EFFECT OF EXCHANGE RATE CHANGES ON CASH</b>	<b>(328)</b>	<b>43</b>
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>23,255</b>	<b>6,706</b>
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD</b>	<b>118,697</b>	<b>123,800</b>
<b>CASH AND CASH EQUIVALENTS, END OF PERIOD</b>	<b>\$ 141,952</b>	<b>\$ 130,506</b>
Supplemental disclosures of cash flow information:		
Non-cash transfer of demonstration inventory to fixed asset	\$ 1,018	\$ —

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

**ANALOGIC CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Unaudited, in millions, except share and per share data)**

**1. Basis of presentation**

Throughout this Quarterly Report on Form 10-Q, unless the context states otherwise, the words “we,” “us,” “our” and “Analogic” refer to Analogic Corporation and all of its subsidiaries taken as a whole, and “our board of directors” refers to the board of directors of Analogic Corporation.

Our unaudited consolidated financial statements presented herein have been prepared pursuant to the rules of the United States Securities and Exchange Commission, or SEC, for quarterly reports on Form 10-Q. Preparing financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses. We report our financial condition and results of operations on a fiscal year basis ending on July 31st of each year. The three months ended October 31, 2016 and 2015 represent the first quarters of fiscal years 2017 and 2016, respectively.

In our opinion, the accompanying unaudited consolidated financial statements contain all adjustments (consisting solely of normal recurring adjustments) necessary for a fair statement of the results for all interim periods presented. The results of operations for the period ended October 31, 2016 are not necessarily indicative of the operating results for the full year. These statements should be read in conjunction with the consolidated financial statements and notes thereto for the fiscal year ended July 31, 2016, or fiscal year 2016, included in our Annual Report on Form 10-K as filed with the SEC on September 27, 2016. The year-end balance sheet data was derived from audited financial statements, but does not include all disclosures required by generally accepted accounting principles, or GAAP, in the United States of America.

***Consolidation***

The unaudited consolidated financial statements presented herein include our accounts and those of our subsidiaries, all of which are wholly owned. All intercompany accounts and transactions have been eliminated in consolidation.

In determining whether we are the primary beneficiary of an entity and therefore required to consolidate, we apply a qualitative approach that determines whether we have both (1) the power to direct the economically significant activities of the entity and (2) the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to that entity. We have not been required to consolidate the activity of any entity due to these considerations.

***Reclassifications and revisions to prior period financial statements***

Certain financial statement items have been reclassified to conform to the current period presentation. We separately presented write down of demo equipment to net realizable value and provision for excess and obsolescence inventory on our October 31, 2015 Consolidated Statements of Cash Flows to conform to the current period presentation. There was no impact on our Consolidated Statements of Operations as a result of these reclassifications.

Additionally, we have recorded out-of-period adjustments in the quarterly period for the three months ended October 31, 2016. These adjustments were identified and corrected during the current quarter financial closing process and relate to fiscal years ended July 31, 2014, 2015 and 2016, but were not reflected in our prior filings because they were deemed immaterial. These out-of-period adjustments are treated as corrections to our prior period financial results, aggregating to approximately \$1.0 million reflecting a \$0.4 million decrease in net revenue, a \$0.4 million increase to cost of sales and a \$0.2 million increase to selling and marketing expenses. We have determined that the errors, individually and in the aggregate, were not material to prior periods. We do not expect these out-of-period adjustments to have a material impact on our consolidated financial statements for the full annual period ended July 31, 2017.

**2. Recent accounting pronouncements**

***Accounting pronouncements issued and recently adopted***

***Cloud computing arrangements***

In April 2015, the FASB issued ASU No. 2015-05, “Intangibles - Goodwill and Other—Internal-Use Software (Subtopic 350-40).” The amendments provide guidance as to whether a cloud computing arrangement (e.g., software as a service, platform as a service, infrastructure as a service, and other similar hosting arrangements) includes a software license and, based on that determination, how to account for such arrangements. The amendments are effective for fiscal years, and interim periods within those years, beginning after December 15, 2015 and may be applied on either a prospective or retrospective basis. Early adoption is permitted. The provisions were effective for us in the first quarter of our fiscal year ending July 31, 2017. Effective August 1, 2016, we adopted ASU 2015-05. The adoption of this update did not have a material impact on our consolidated financial statements.

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[Table of Contents](#)

*Disclosure of uncertainties about an entity's ability to continue as a going concern*

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements — Going Concern (Subtopic 205-40) Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern". The standard requires management to evaluate an entity's ability to continue as a going concern within one year of the date of issuance of the entity's financial statements. The amendments are effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter and should be applied on a prospective basis. Early adoption is permitted. The provisions would be effective for us for our annual period ending on July 31, 2017. We elected early adoption of ASU 2014-15 during our first quarter of fiscal year beginning on August 1, 2016 on a prospective basis. The adoption of this update did not have a material impact on our consolidated financial statements.

*Accounting pronouncements issued and not yet effective*

*Classification of Certain Cash Receipts and Cash Payments*

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230)." The amendments provide guidance on the eight specific cash flow statement presentation and classification issues as follows: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; (3) contingent consideration payments made after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. The amendments are effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. The standard will be effective for us in the first quarter of our fiscal year ending July 31, 2019. We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

*Improvements to employee share-based payment accounting*

In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which amends ASC 718, "Stock Based Compensation." The amendments require that all excess tax benefits be recorded as an income tax benefit or expense in the income statement and be classified as an operating activity in the statement of cash flows. Entities may also elect to estimate the amount of forfeitures or recognize them as they occur. The amendments are effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. The standard will be effective for us in the first quarter of our fiscal year ending July 31, 2018 and early adoption is permitted. We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

*Leases*

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)". The standard requires lessees to recognize assets and liabilities for most leases on the balance sheet. For income statement purposes, the standard requires leases to be classified as either operating or finance. The standard is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted. The standard will be effective for us in the first quarter of our fiscal year ending July 31, 2020. Adoption requires application of the new guidance for all periods presented. We are currently evaluating the impact of the adoption of this standard on our consolidated financial statements.

*Revenue from contracts with customers*

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)". This update affects any entity that either enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of nonfinancial assets. This update will supersede existing revenue recognition requirements and most industry-specific guidance. This update also supersedes some cost guidance, including revenue recognition guidance for construction-type and production-type contracts. The update's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under today's guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. This update should be applied either on a retrospective or modified retrospective basis. This update was originally effective for us in the first quarter of our fiscal year ending July 31, 2018. Early adoption was not permitted. In August 2015, the FASB approved a one year delay of the effective date of the new revenue standard for public entities. Therefore, this update would be effective for us in the first quarter of our fiscal year ending July 31, 2019. The standard permits entities to early adopt, but only as of the original effective date (i.e. one year earlier). We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

### 3. Accounts receivable, net

Our accounts receivable arise primarily from products sold and services provided in North America, Europe and Asia. The balance in accounts receivable represents the amount due from our domestic and foreign original equipment manufacturers, or OEM, customers, distributors and end users. We perform ongoing credit evaluations of our customers' financial condition and continuously monitor collections and payments from our customers and maintain a provision for estimated credit losses based upon specific customer collection issues that have been identified. We accrue reserves against trade receivables for estimated losses that may result from a customer's inability to pay. Amounts determined to be uncollectible are charged or written off against the reserve. To date, our historical write-offs of accounts receivable have been minimal.

Our top ten customers combined accounted for approximately 64% and 62% of our total net revenue for each of the three months ended October 31, 2016 and 2015, respectively. Set forth in the table below are customers which individually accounted for 10% or more of our net revenue.

	Three Months Ended October 31,	
	2016	2015
Koninklijke Philips Electronics N.V., or Philips	13%	13%
Siemens AG	13%	14%
L-3 Communications Corporation, or L-3	10%	*
Toshiba Corporation, or Toshiba	*	11%

Note (\*): Total net revenue was less than 10% in this period.

The following table summarizes our customers with net accounts receivable balances greater than or equal to 10% of our total net accounts receivable balance:

	As of October 31, 2016	As of July 31, 2016
L-3	17%	17%
Philips	13%	15%

### 4. Inventory

The components of inventory, net of allowance for obsolete, unmarketable or slow-moving inventories, are summarized as follows:

(in millions)	As of October 31, 2016	As of July 31, 2016
Raw materials	\$ 70.4	\$ 68.6
Work in process	44.2	45.6
Finished goods	30.6	31.3
Total inventory	<u>\$ 145.3</u>	<u>\$ 145.5</u>

### 5. Goodwill and intangible assets

#### *Goodwill*

Analogic has goodwill balances of \$73.9 million at both October 31, 2016 and July 31, 2016. We review periodically for impairment indicators and perform a formal goodwill impairment test in the second quarter of each fiscal year.

#### *Intangible assets*

Intangible assets include the value assigned to intellectual property and other technology, patents, customer contracts and relationships, and trade names. The estimated useful lives for all of these intangible assets, excluding a trade name determined to have an indefinite life, range between 1 to 14 years. Indefinite-lived intangible assets consist of trade names acquired in business combinations. The carrying values of our indefinite-lived intangible assets were \$7.6 million at both October 31, 2016 and July 31, 2016.

[Table of Contents](#)

Intangible assets are summarized as follows:

(in millions)	Weighted Average Amortization Period	As of October 31, 2016			As of July 31, 2016		
		Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Developed technologies	10 years	\$29.9	\$ 15.9	\$14.0	\$29.9	\$ 15.1	\$14.8
Customer relationships	13 years	47.1	26.4	20.7	47.1	25.2	21.9
Trade names	3 years	1.9	1.0	0.9	1.9	1.0	0.9
Total finite-lived intangible assets		<u>\$78.9</u>	<u>\$ 43.3</u>	<u>\$35.6</u>	<u>\$78.9</u>	<u>\$ 41.3</u>	<u>\$37.6</u>

Amortization expense related to acquired intangible assets was \$2.0 million and \$2.0 million for the three months ended October 31, 2016 and 2015 respectively.

The estimated future amortization expense related to intangible assets for the five succeeding fiscal years is expected to be as follows:

(in millions)	Estimated Future Amortization Expense
Remaining 2017	\$ 5.9
2018	6.9
2019	5.7
2020	5.3
2021	4.8
Thereafter	7.0
	<u>\$ 35.6</u>

We performed the annual impairment test for our goodwill and other intangible assets with indefinite lives as of December 31, 2015 and concluded that there was no impairment. There have been no indicators of impairment that would warrant another impairment assessment prior to December 31, 2016.

## 6. Fair value measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or the most advantageous market for the asset 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. We use a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1 – Quoted prices in active markets for identical assets or liabilities.
- Level 2 – Inputs other than Level 1 that are observable, either directly or indirectly, 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.
- 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.

[Table of Contents](#)

The following tables provide the assets and liabilities carried at fair value and measured on a recurring basis at October 31, 2016 and July 31, 2016:

(in millions)	Fair Value Measurements at October 31, 2016			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Cash and cash equivalents	\$ 142.0	\$ 142.0	\$ —	\$ —
Plan assets for deferred compensation	6.3	6.3	—	—
Total assets at fair value	\$ 148.3	\$ 148.3	\$ —	\$ —
<b>Liabilities</b>				
Contingent consideration	\$ 12.3	\$ —	\$ —	\$ 12.3
Foreign currency forward contracts	0.6	—	0.6	—
Total liabilities at fair value	\$ 12.9	\$ —	\$ 0.6	\$ 12.3

(in millions)	Fair Value Measurements at July 31, 2016			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Cash and cash equivalents	\$ 118.7	\$ 118.7	\$ —	\$ —
Plan assets for deferred compensation	5.9	5.9	—	—
Total assets at fair value	\$ 124.6	\$ 124.6	\$ —	\$ —
<b>Liabilities</b>				
Contingent consideration	\$ 12.2	\$ —	\$ —	\$ 12.2
Foreign currency forward contracts	0.3	—	0.3	—
Total liabilities at fair value	\$ 12.5	\$ —	\$ 0.3	\$ 12.2

Assets held in the deferred compensation plan will be used to pay benefits under our non-qualified deferred compensation plan. The investments primarily consist of mutual funds which are publicly traded on stock exchanges. Accordingly, the fair value of these assets is categorized as Level 1 within the fair value hierarchy.

The fair value of the liabilities arising from our foreign currency forward contracts is determined by valuation models based on market observable inputs, including forward and spot prices for currencies. Accordingly, the fair value of these liabilities is categorized as Level 2 within the fair value hierarchy.

The fair value of our contingent consideration obligation is based on significant unobservable inputs, including management estimates and assumptions, and is measured based on the probability-weighted present value of the payments expected to be made. Accordingly, the fair value of this liability is categorized as Level 3 within the fair value hierarchy.

The fair value of the contingent payments associated with the acquisition of PocketSonic, Inc., or PocketSonic, was calculated utilizing 100% probability for the earn out associated with the Section 510(k) clearance obtained from the Food and Drug Administration, or FDA, on April 9, 2014 and the first commercial shipment as defined in the purchase agreement, in the fiscal year ending July 31, 2016, or fiscal year 2016. Each quarter we revalue the contingent consideration obligations associated with the acquisition of PocketSonic to its then current fair value and record changes in the fair value to the Consolidated Statements of Operations. Changes in contingent consideration result from changes in the assumptions regarding probabilities of the estimated timing of launch, volume sales target, payments and the discount rate used to estimate the fair value of the liability. The assumptions used in estimating fair value require significant judgment. The use of different assumptions and judgments could result in a materially different estimate of fair value. There was no change in the fair value of our contingent consideration obligation during the three months ended October 31, 2016. As of October 31, 2016 and July 31, 2016 the fair value of the contingent consideration obligation was reported in Other current liabilities as \$2.0 million, in the Consolidated Balance Sheets. We anticipate paying out the \$2.0 million contingent liability by the end of the third quarter during fiscal year 2017. Please refer to *Note 3. Business combination* in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016 for more information on the acquisition of Pocketsonics.

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[Table of Contents](#)

The fair value of the contingent payment obligation associated with the acquisition of Oncura was valued using a Monte Carlo simulation. The fair value of the contingent payment obligation of Oncura will be revalued each quarter to its then fair value and we will record changes in the fair value as contingent consideration expense within our Consolidated Statement of Operations within general and administrative operating expenses. Changes in contingent consideration expense result from changes in the assumptions regarding probabilities of the estimated future volume sales and gross margin targets and the discount rate used to estimate the fair value of the liability. The assumptions used in estimating the fair value require significant judgment. The use of different assumptions and judgments could result in a different estimate of fair value. There was a \$0.1 million increase in the fair value of our contingent consideration obligation during the quarter ended October 31, 2016. As of October 31, 2016, the fair value of the contingent consideration obligation associated with the Oncura acquisition was \$2.5 million within short-term contingent consideration and \$7.8 million within long-term contingent consideration, in the Consolidated Balance Sheets. For more information on the acquisition of Oncura, please refer to *Note 3. Business combination* in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016.

## **7. Derivative instruments**

Certain of our foreign operations have revenue and expenses transacted in currencies other than the U.S. dollar. In order to mitigate foreign currency exchange risk, we use forward contracts to lock in exchange rates associated with a portion of our forecasted international expenses.

As of October 31, 2016, we have forward contracts outstanding with notional amounts totaling \$13.4 million. These contracts are designated as cash flow hedges, and the unrealized loss of \$0.4 million, net of tax, on these contracts are reported in Accumulated other comprehensive income as of October 31, 2016. Assets and liability derivatives designated as hedging instruments are presented in other assets and other liabilities, respectively, on our Consolidated Balance Sheets. At October 31, 2016 we had a derivative liability of \$0.6 million included in other liabilities on our Consolidated Balance Sheet.

As of July 31, 2016, we have forward contracts outstanding with notional amounts totaling \$18.6 million. These contracts are designated as cash flow hedges, and the unrealized loss of \$0.2 million, net of tax, on these contracts are reported in Accumulated other comprehensive income as of July 31, 2016. At July 31, 2016 we had a derivative liability of \$0.3 million included in other liabilities on our Consolidated Balance Sheet.

Realized gains and (losses) on the cash flow hedges are recognized in income in the period when the payment of expenses is recognized. During the three months ended October 31, 2016 and 2015, we recorded approximately \$0.1 million and \$0.2 million of realized loss, respectively, included in our Consolidated Statements of Operations.

## **8. Common stock repurchases**

On June 2, 2014, our board of directors authorized the repurchase of up to \$30.0 million of our common stock. Repurchases under this program will be funded by our available cash. The repurchase program does not have a fixed expiration date. During the three months ended October 31, 2016 no shares have been repurchased under this program. The cumulative shares that were repurchased and retired under the program were 367,193 shares of common stock for \$29.0 million at an average purchase price of \$78.93 per share.

On May 26, 2016, our board of directors authorized the repurchase of up to \$15.0 million of our common stock. No shares have been repurchased under this program.

## **9. Accumulated other comprehensive income**

Components of comprehensive (loss) income include net income and certain transactions that have generally been reported in the Consolidated Statements of Changes in Stockholders' Equity. Other comprehensive (loss) income consists of reported foreign currency translation gains and losses (net of taxes), actuarial gains and losses on pension plan assets (net of taxes), and changes in the unrealized value on foreign currency forward contracts (net of taxes). Deferred taxes are not provided on cumulative translation adjustments where we expect earnings of a foreign subsidiary to be indefinitely reinvested. The income tax effect of currency translation adjustments related to foreign subsidiaries that are not considered indefinitely reinvested is recorded as a component of deferred taxes with an offset to other comprehensive (loss) income.

[Table of Contents](#)

The following table summarizes components of Accumulated other comprehensive (loss) income for the three months ended October 31, 2016:

(in millions)	Unrealized Gain on Foreign Currency Forward Contracts	Unrealized Losses on Pension Plan	Currency Translation Adjustment	Accumulated Other Comprehensive Income
<b>Balance as of July 31, 2016</b>	\$ (0.2)	\$ (4.9)	\$ (3.4)	\$ (8.5)
Pre-tax change before reclassification to earnings	—	0.1	(1.6)	(1.5)
Amount reclassified to earnings	(0.3)	—	—	(0.3)
Income tax benefit (provision)	0.1	—	—	0.1
<b>Balance as of October 31, 2016</b>	<u>\$ (0.4)</u>	<u>\$ (4.8)</u>	<u>\$ (5.0)</u>	<u>\$ (10.2)</u>

The ineffective portion of the unrealized losses on foreign currency forward contracts and unrealized gains or losses on currency translation adjustment are included in other expense, net on our Consolidated Statements of Operations.

#### 10. Share-based compensation

The following table presents share-based compensation expense included in our Consolidated Statements of Operations:

(in millions)	Three Months Ended October 31,	
	2016	2015
Cost of product sales	\$ 0.1	\$ 0.2
Cost of engineering sales	—	—
Research and product development	0.3	0.5
Selling and marketing	0.4	0.4
General and administrative	0.8	1.3
Total share-based compensation expense before tax	1.6	2.4
Income tax effect	(0.5)	(0.7)
Share-based compensation expense included in net income	<u>\$ 1.1</u>	<u>\$ 1.7</u>

#### Stock options

We estimate the fair value of stock options using the Black-Scholes valuation model. Key input assumptions used to estimate the fair value of stock options include the exercise price of the award, the expected option term, the expected volatility of our stock over the option's expected term, the risk-free interest rate over the option's expected term, and our expected annual dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by persons who receive equity awards.

No stock options were granted during the three months ended October 31, 2016 and October 31, 2015.

The total intrinsic value of options exercised during the three months ended October 31, 2016 and 2015 was \$0.7 million and \$0.3 million, respectively.

#### Restricted stock and restricted stock units

We estimate the fair value of restricted stock units, or RSUs, that vest based on service conditions using the quoted closing price of our common stock on the date of grant. Share-based compensation expense is amortized over each award's vesting period on a straight-line basis for all awards with service and performance conditions that vest at the end of the performance cycle, while the accelerated method applies to other awards with both service and performance conditions.

For our non-GAAP earnings per share, or EPS awards, the compensation cost is amortized over the performance period on a straight-line basis, net of forfeitures, because such awards vest only at the end of the performance period. The compensation cost is based on the number of shares that are deemed probable of vesting at the end of the three-year performance cycle. This probability assessment is done each quarter and changes in estimates can result in significant expense fluctuations due to the cumulative catch-up adjustment. We estimate the fair value of the non-GAAP EPS awards using the quoted closing price of our common stock on the date of grant.

## Table of Contents

For our relative total shareholder return, or TSR awards, which are based on market performance of our stock as compared to an industry peer group, the compensation cost is amortized over the performance period on a straight-line basis net of forfeitures, because the awards vest only at the end of the measurement period and the probability of actual shares expected to be earned is considered in the grant date valuation. As a result, the expense is not adjusted to reflect the actual shares earned. We estimate the fair value of the TSR awards using the Monte-Carlo simulation model.

We granted 28,148 and 23,050 TSR awards and 62,032 and 30,124 non-GAAP EPS awards during the three months ended October 31, 2016 and October 31, 2015, respectively. The fair value of our TSR performance-based awards at the date of grant was estimated using the Monte-Carlo simulation model with the following assumptions:

	Three Months Ended October 31,	
	2016	2015
Stock price (1)	\$ 90.23	\$ 84.23
Expected volatility (2)	27.0%	26.4%
Risk-free interest rate (3)	0.85%	1.03%
Expected annual dividend yield (4)	0.00%	0.00%
Weighted average grant date fair value of time-based restricted stock awards	\$ 89.39	\$ 84.20
Weighted average grant date fair value of performance based restricted stock awards	\$ 87.05	\$ 98.66

- (1) The stock price is the closing price of our common stock on the date of grant.
- (2) The expected volatility for each grant is determined based on the historical volatility for the peer group companies and our common stock over a period equal to the remaining term of the performance period from the date of grant for all awards.
- (3) The risk-free interest rate is determined based on the yield of zero-coupon U.S. Treasury securities for a period that is commensurate with the performance period.
- (4) Dividends are considered reinvested when calculating TSR. The dividend yield is therefore considered to be 0%.

The total fair value of RSUs that vested during the three months ended October 31, 2016 and 2015 was \$2.6 million and \$2.0 million, respectively.

As of October 31, 2016, the unrecognized compensation cost, net of estimated forfeitures, related to unvested stock options and restricted stock was \$18.5 million. This cost will be recognized over an estimated weighted average amortization period of 1.6 years and assumes target performance for the non-GAAP EPS awards.

## 11. Restructuring charges

### Fiscal Year 2016 Restructuring Plan

On September 16, 2015, we announced our fiscal year 2016 restructuring plan, or 2016 Restructuring Plan. This plan includes the transition of certain manufacturing activities from our Peabody, Massachusetts location to our existing facility in Shanghai, China, and a reduction in force in order to align our research and development investment with expected customer funding. We had a pre-tax adjustment of approximately \$0.03 million to restructuring during the quarter ended October 31, 2016. We incurred pre-tax charges of \$3.3 million during the quarter ended October 31, 2015, primarily relating to severance and personnel related costs for terminated employees. We expect that the 2016 Restructuring Plan will be substantially completed during fiscal year 2017.

### Current Period Activity

The following table summarizes accrued restructuring activities for the three months ended October 31, 2016:

(in millions)	Employee Severance and Benefits (A)	Other Restructuring Costs (A)	Total
Balance at July 31, 2016	\$ 5.2	\$ —	\$ 5.2
Adjustments	0.03	—	0.03
Cash payments	(2.7)	—	(2.7)
Balance at October 31, 2016	\$ 2.5	\$ —	\$ 2.5

- (A) Activity during the period pertains to the 2016 Restructuring Plan.

[Table of Contents](#)

The following table summarizes accrued restructuring activities for the three months ended October 31, 2015:

(in millions)	Employee Severance and Benefits (A)	Facility Exit Costs (B)	Other Restructuring Costs (A)	Total
Balance at July 31, 2015	\$ 0.2	\$ 0.4	\$ —	\$ 0.6
Restructuring charge	3.2	—	0.1	3.3
Cash payments	(0.5)	(0.1)	(0.1)	(0.7)
Balance at October 31, 2015	\$ 2.9	\$ 0.3	\$ —	\$ 3.2

- (A) All activity during the period pertains to the 2014 Restructuring Plan. For more information on the 2014 Restructuring Plan, please refer to *Note 4. Restructuring charges* on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016.
- (B) All activity during the period pertains to the 2013 Restructuring Plan. For more information on the 2013 Restructuring Plan, please refer to *Note 4. Restructuring charges* on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016.

Restructuring and related charges, including actions associated with acquisitions, by segment are as follows:

(in millions)	For Three Months Ended October 31,	
	2016	2015
Medical Imaging	\$ 0.02	\$ 2.0
Ultrasound	0.01	0.7
Security and Detection	—	0.6
Total restructuring and related charges	\$ 0.03	\$ 3.3

Accrued restructuring charges are classified on the Consolidated Balance Sheets in the Current Liabilities section.

## 12. Net income per common share

Basic net income per share is computed using the weighted average number of common shares outstanding during the period. Diluted net income per share is computed using the sum of the weighted average number of common shares outstanding during the period and, if dilutive, the weighted average number of potential shares of common stock, including unvested restricted stock and the assumed exercise of stock options using the treasury stock method.

Basic and diluted net income per share are calculated as follows:

(in millions, except per share data and share data in thousands)	Three Months Ended October 31,	
	2016	2015
Net income	\$ 2.5	\$ 1.4
Weighted average number of common shares outstanding-basic	12,419	12,427
Effect of dilutive securities:	—	—
Stock options and restricted stock units	197	181
Weighted average number of common shares outstanding-diluted	12,616	12,607
Basic net income per share	\$ 0.20	\$ 0.11
Diluted net income per share	\$ 0.20	\$ 0.11
Anti-dilutive shares related to outstanding stock options and unvested restricted stock (A)	1	154

- (A) These shares related to outstanding stock options and unvested restricted stock were not included in our calculations of diluted earnings per share, as the effect of including them would be anti-dilutive.

### 13. Income taxes

The following table presents the provision for income taxes and our effective tax rate for the three months ended October 31, 2016 and 2015:

(in millions except percentages)	Three Months Ended October 31,	
	2016	2015
Provision for income taxes	\$ 1.0	\$ 0.2
Effective tax rate	28%	10%

The effective income tax rate on operations is based upon the estimated income for the year, the composition of the income in different countries, and adjustments, if any, in the applicable quarterly periods for the potential tax consequences, benefits, resolutions of tax audits or other tax contingencies.

Our effective tax rate for the three months ended October 31, 2016 is lower than the statutory rate of 35% primarily due to income generated outside the United States in countries with lower tax rates, tax credits in the United States and Canada, and the manufacturing deduction in the United States. The tax provision for the three months ended October 31, 2016 includes discrete tax benefits totaling less than \$0.1 million.

Our effective tax rate for the three months ended October 31, 2015 is lower than the statutory rate of 35% primarily due to income generated outside the United States in countries with lower tax rates, and tax credits in Canada. The tax provision for the three months ended October 31, 2015 includes discrete tax benefits totaling \$0.2 million. Because the profits before tax in that period were \$1.5 million, the discrete tax benefits, though relatively small, had a large impact on the tax rate in the period.

We are subject to U.S. Federal income tax as well as the income tax of multiple state and foreign jurisdictions. As of October 31, 2016, we have concluded all U.S. Federal income tax matters through the year ended July 31, 2012.

We accrue interest and, if applicable, penalties for any uncertain tax positions. This interest and penalty expense is treated as a component of income tax expense. At October 31, 2016 and July 31, 2016, we had approximately \$0.5 million and \$0.4 million accrued for interest and penalties on unrecognized tax benefits.

At October 31, 2016, we had \$7.5 million of unrecognized tax benefits for uncertain tax positions and \$0.5 million of related accrued interest and penalties. We are unable to reasonably estimate the amount and period in which these liabilities might be paid.

We do not provide for U.S. Federal income taxes on undistributed earnings of consolidated foreign subsidiaries, as such earnings are intended to be indefinitely reinvested in those operations. Determination of the potential deferred income tax liability on these undistributed earnings is not practicable because such liability, if any, is dependent on circumstances that exist if and when remittance occurs. The circumstances that would affect the calculations would be the source location and amount of the distribution, the underlying tax rate already paid on the earnings, foreign withholding taxes and the opportunity to use foreign tax credits.

### 14. Segment information

Our business is strategically aligned into three segments: Medical Imaging, Ultrasound, and Security and Detection. Our business segments are described as follows:

- *Medical Imaging* primarily includes systems and subsystems for CT and MRI medical imaging equipment as well as state-of-the-art, selenium-based detectors for screening of breast cancer and other diagnostic applications in mammography.
- *Ultrasound* includes ultrasound systems and transducers primarily in the urology, surgery, and point-of-care markets.
- *Security and Detection* includes advanced threat detecting CT systems utilizing our expertise in advanced imaging technology, primarily used in the checked baggage screening at airports worldwide.

[Table of Contents](#)

The tables below present information about our reportable segments:

(in millions)	Three Months Ended	
	October 31,	
	2016	2015
<b>Product revenue:</b>		
Medical Imaging	\$ 66.5	\$ 64.3
Ultrasound	35.6	36.5
Security and Detection	18.1	13.3
Total product revenue	\$ 120.2	\$114.1
<b>Engineering revenue:</b>		
Medical Imaging	\$ 0.7	\$ 0.6
Ultrasound	0.2	0.2
Security and Detection	—	—
Total engineering revenue	\$ 0.9	\$ 0.8
<b>Net revenue:</b>		
Medical Imaging	\$ 67.2	\$ 64.9
Ultrasound	35.8	36.7
Security and Detection	18.1	13.3
Total net revenue	\$ 121.1	\$114.9
<b>Income from operations:</b>		
Medical Imaging (A)	\$ 6.7	\$ 6.2
Ultrasound (B)	(5.8)	(4.4)
Security and Detection (C)	3.0	0.2
Total income from operations	3.9	2.0
Total other income, net	(0.4)	(0.5)
Income before income taxes	\$ 3.5	\$ 1.5

  

(in millions)	As of	As of
	October 31,	July 31,
	2016	2016
<b>Identifiable total assets by segment:</b>		
Medical Imaging	\$ 177.6	\$191.1
Ultrasound	150.3	152.5
Security and Detection	44.6	49.8
Total reportable segment assets	372.5	393.4
Corporate assets (D)	188.0	165.6
Total identifiable assets	\$ 560.5	\$559.0

  

(in millions)	As of	As of
	October 31,	July 31,
	2016	2016
<b>Goodwill by segment:</b>		
Medical Imaging	\$ 1.9	\$ 1.9
Ultrasound	71.5	71.5
Security and Detection	0.5	0.5
Total goodwill	\$ 73.9	\$ 73.9

- (A) Includes restructuring charges of \$0.02 million and \$2.0 million for October 31, 2016 and October 31, 2015, respectively.  
(B) Includes restructuring charges of \$0.01 million and \$0.7 million for October 31, 2016 and October 31, 2015, respectively.  
(C) Includes restructuring charges of \$0.0 million and \$0.6 million for October 31, 2016 and October 31, 2015, respectively.  
(D) Includes cash and cash equivalents of \$121.2 million and \$97.3 million as of October 31, 2016 and July 31, 2016, respectively.

**15. Guarantees, commitments and contingencies**

***Guarantees and Indemnification Obligations***

Our standard OEM and supply agreements entered in the ordinary course of business typically contain an indemnification provision pursuant to which we indemnify, hold harmless, and agree to reimburse the indemnified party for losses suffered or incurred

## [Table of Contents](#)

by the indemnified party in connection with any U.S. patent or any copyright or other intellectual property infringement claim by any third party with respect to our products. Such provisions generally survive termination or expiration of the agreements. The potential amount of future payments we could be required to make under these indemnification provisions is, in some instances, unlimited. Our costs to defend lawsuits or settle claims related to these indemnification agreements have been insignificant to date. As a result, we believe that our estimated exposure on these agreements is currently minimal. Accordingly, we have no liabilities recorded for these agreements as of October 31, 2016.

Generally, we warrant that our products will perform in all material respects in accordance with our standard published specifications in effect at the time of delivery of the products to the customer for a period ranging from 12 to 60 months from the date of delivery. We provide for the estimated cost of product and service warranties based on specific warranty claims, claim history, and engineering estimates, where applicable.

The following table presents our product warranty liability as of October 31, 2016:

(in millions)	As of October 31, 2016
Beginning balance	\$ 6.3
Provision	0.2
Settlements made in cash or in kind during the period	(0.3)
Ending balance	\$ 6.2

At October 31, 2016 and July 31, 2016, we had deferred revenue for extended product warranty contracts of \$0.2 million and \$0.2 million, respectively.

### **Revolving Credit Agreements**

On November 23, 2015, we entered into a five-year revolving credit agreement, or Credit Agreement, with the financial institutions identified therein as lenders, which included JPMorgan Chase Bank, N.A., TD Bank, N.A., Wells Fargo Bank, N.A., HSBC Bank, N.A., and People's United Bank, N.A. The Credit Agreement provides \$100.0 million in available credit and expires on November 23, 2020, when all outstanding borrowings must be paid in full. The credit facility does not require amortization of principal and may be reduced before maturity in whole or in part at our option without penalty. Upon entry into the Credit Agreement, we terminated without penalty a \$100.0 million five-year, revolving credit agreement entered into on October 11, 2011 and previously paid in full in accordance with its terms. Borrowings under the Credit Agreement may be used for general corporate purposes, including permitted acquisitions. The amount of available credit can be increased under specified circumstances up to \$200.0 million in aggregate. We are the sole borrower under the Credit Agreement. The obligations under the credit facility are guaranteed as required to be by our material domestic subsidiaries as designated by us from time to time or as required under the Credit Agreement. There are no pledges of the capital stock or assets of our international subsidiaries.

Interest rates on borrowings outstanding under the credit facility range from 1.25% to 1.75% above the LIBOR rate, or, at our option range from 0.00% to 1.00% above a defined base rate, the amount in each case varying based upon our leverage ratio. A quarterly commitment fee ranging from 0.20% to 0.35% per annum is applicable on the undrawn portion of the credit facility, based upon our leverage ratio.

The Credit Agreement limits our and our subsidiaries' ability to, among other things: incur additional indebtedness; incur liens or guarantee obligations; pay dividends or make other distributions; make investments; dispose of assets; and engage in transactions with affiliates except on an arms-length basis. In addition, the Credit Agreement requires us to maintain the following financial ratios:

- A leverage ratio, defined as consolidated funded indebtedness to consolidated trailing four quarters earnings before interest, taxes, depreciation and amortization, or EBITDA, with the adjustments as stipulated in the Credit Agreement, of no greater than 2.75:1.00 (with a temporary step-up in the event of certain acquisitions); and
- An interest coverage ratio, defined as the ratio of consolidated trailing four quarters adjusted EBITDA to consolidated interest charges of no less than 3.00:1.00 at any time.

As of October 31, 2016, our leverage ratio was 0.004:1.00 and our interest coverage ratio was not applicable as we had no attributable interest expense. As of October 31, 2016, we were in full compliance with all financial and operating covenants contained in the Credit Agreement.

Any failure to comply with the financial or operating covenants of the credit facility would prevent us from being able to borrow and would also constitute a default, permitting the lenders to, among other things, accelerate repayment of outstanding borrowings, including all accrued interest and fees, and to terminate the credit facility. A change in control, as defined in the Credit Agreement, would also constitute an event of default, permitting the lenders to accelerate repayment and terminate the Credit Agreement.

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[Table of Contents](#)

In connection with entering into the Credit Agreement, we incurred approximately \$0.5 million of transactions costs, which are being amortized over the five-year life of the credit facility.

As of October 31, 2016 and July 31, 2016, we had approximately \$1.2 million in other revolving credit facilities with banks available for direct borrowings.

We did not have any borrowing outstanding under any of our credit facilities at October 31, 2016 and July 31, 2016, respectively.

***Legal Claims***

We are subject to litigation, claims, investigations and audits arising from time to time in the ordinary course of our business. Although legal proceedings are inherently unpredictable, we believe that we have valid defenses with respect to those matters currently pending against us and intend to defend ourselves vigorously. The outcome of these matters, individually and in the aggregate, is not expected to have a material impact on our cash flows, results of operations, or financial position. We record losses when estimable and probable in accordance with U.S. GAAP.

**16. Subsequent events**

We declared a dividend of \$0.10 per share of common stock on December 1, 2016, which will be paid on December 30, 2016 to stockholders of record on December 16, 2016.

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

The following discussion provides an analysis of our financial condition and results of operations and should be read in conjunction with the unaudited consolidated financial statements and notes thereto included elsewhere in this report. The discussion contains statements, which, to the extent that they are not a recitation of historical facts, constitute "forward-looking statements" pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, including, statements about product development, market and industry trends, strategic initiatives, regulatory approvals, sales, profits, expenses, price trends, research and development expenses and trends, and capital expenditures, we make in this document or in any document incorporated by reference are forward-looking. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "seeks," "estimates," and similar expressions are intended to identify forward looking statements. Such forward-looking statements involve known and unknown risks, uncertainties, and other factors, which may cause our actual results, performance, or achievements to differ materially from the projected results. See *Part I, Item 1A. Risk Factors* of our Annual Report on Form 10-K for fiscal year 2016 as filed with the U.S. Securities and Exchange Commission, or SEC on September 27, 2016 for a discussion of the primary risks and uncertainties known to us.

In addition, any forward-looking statements represent management's views only as of the date of this Quarterly Report on Form 10-Q was filed with the SEC and should not be relied upon as representing management's views as of any subsequent date. While management may elect to update forward-looking statements at some point in the future, it specifically disclaims any obligation to do so, even if its views change, except as required by law.

We report our financial condition and results of operations on a fiscal year basis ending July 31. The three months ended October 31, 2016 and 2015 represent the first quarters of fiscal years 2017 and 2016, respectively.

Our Management's Discussion and Analysis is presented in six sections as follows:

- Executive Summary
- Results of Operations
- Liquidity and Capital Resources
- Commitments, Contractual Obligations, and Off-Balance Sheet Arrangements
- Recent Accounting Pronouncements
- Critical Accounting Policies

### Executive Summary

#### Introduction

Analogic Corporation designs, manufactures, and commercializes innovative real-time guidance, diagnostic imaging and threat detection technologies to advance the practice of medicine and save lives. We design, manufacture and sell advanced medical imaging, ultrasound and security systems and subsystems to original equipment manufacturers, or OEMs, and end users primarily for the healthcare and airport security markets.

Our business is strategically aligned into three segments: Medical Imaging, Ultrasound, and Security and Detection. Our business segments are described as follows:

- *Medical Imaging* primarily includes systems and subsystems for CT and MRI medical imaging equipment as well as state-of-the-art, selenium-based detectors for screening of breast cancer and other diagnostic applications in mammography.
- *Ultrasound* includes ultrasound systems and transducers primarily used in the urology, surgery, and point-of-care markets.
- *Security and Detection* includes advanced threat detection CT systems utilizing our expertise in advanced medical imaging technology, primarily used in the checked baggage screening at airports worldwide.

On October 24, 2016, we issued a press release announcing that James W. Green would step down as President and Chief Executive Officer and resign from his position as a member of the Company's Board of Directors, effective October 31, 2016. The Company's Board of Directors appointed medical imaging industry executive Dr. Fred B. Parks, who has been a director of the Company since 2007, to serve as the Company's new President and Chief Executive Officer, effective as of October 31, 2016. For more information on our CEO transition, please refer to our Current Report on Form 8-K, as filed with the SEC on October 27, 2016.

[Table of Contents](#)**Financial Results**

The following table summarizes our financial results:

(in millions, except per share amounts and percentages)	Three Months Ended October 31,		Percentage Change
	2016	2015	
Total net revenues	\$ 121.1	\$ 114.9	5%
Gross profit	\$ 51.6	\$ 50.9	1%
Gross margin	42.6%	44.3%	
Income from operations	\$ 3.9	\$ 2.0	95%
Operating margin	3.2%	1.7%	
Net income	\$ 2.5	\$ 1.4	79%
Diluted net income per share	\$ 0.20	\$ 0.11	82%

For a discussion of seasonal aspects of our business please refer to *Part 1, Item 1. Business* of our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016.

**Results of Operations***Three months ended October 31, 2016 compared to the three months ended October 31, 2015***Net revenue****Product revenue**

Product revenue by segment is summarized as follows:

(in millions except percentages)	Three Months Ended October 31,		Percentage Change
	2016	2015	
Medical Imaging	\$ 66.5	\$ 64.3	3%
Ultrasound	35.6	36.5	-2%
Security and Detection	18.1	13.3	36%
Total product revenue	\$ 120.2	\$ 114.1	5%

**Medical Imaging**

During the three months ended October 31, 2016, our Medical Imaging revenue increased by 3%, primarily due to the favorable timing of MRI shipments.

**Ultrasound**

During the three months ended October 31, 2016, our Ultrasound revenue decreased by 2%, primarily due to a decrease in customer demand of legacy OEM probes partially offset by an increase in direct Ultrasound shipments.

**Security and Detection**

During the three months ended October 31, 2016, our Security and Detection revenue increased by 36% due to increased volume across all products.

**Engineering revenue**

Engineering revenue by segment is summarized as follows:

(in millions except percentages)	Three Months Ended October 31,		Percentage Change
	2016	2015	
Medical Imaging	\$ 0.7	\$ 0.6	17%
Ultrasound	0.2	0.2	0%
Security and Detection	—	\$ —	0%
Total engineering revenue	\$ 0.9	\$ 0.8	13%

The change in engineering revenue for the three months ended October 31, 2016 was primarily due to timing of work done on customer-funded engineering projects in the Medical Imaging segment.

[Table of Contents](#)**Gross margin***Product gross margin*

Product gross margin is summarized as follows:

(in millions except percentages)	Three Months Ended October 31,		Percentage Change
	2016	2015	
Product gross profit	\$ 51.5	\$ 51.2	1%
Product gross margin	42.8%	44.8%	

Product gross margin decreased by 2 points during the three months ended October 31, 2016, primarily due to product/segment mix.

*Engineering gross margin*

Engineering gross margin is summarized as follows:

(in millions except percentages)	Three Months Ended October 31,		Percentage Change
	2016	2015	
Engineering gross profit	\$ 0.1	\$ (0.2)	-150%
Engineering gross margin	17.2%	-29.7%	

The increase in the engineering gross margin during the three months ended October 31, 2016 was due to higher estimated costs associated with an engineering project during the three months ended October 31, 2015.

**Operating expenses**

Operating expenses are summarized as follows:

(in millions except percentages)	Three Months Ended October 31,		Percentage Change	Percentage of Net Revenue	
	2016	2015		2016	2015
Research and product development	\$ 15.9	\$ 17.2	-7.6%	13.1%	15.0%
Selling and marketing	18.2	15.2	19.7%	15.0%	13.2%
General and administrative	13.6	13.2	3.0%	11.2%	11.5%
Restructuring	0.03	3.3	-99.1%	0.0%	2.9%
Total operating expenses	\$ 47.7	\$ 48.9	-2.5%	39.3%	42.6%

Operating expenses for the three months ended October 31, 2016 decreased by \$1.2 million, or 2.5%, versus the prior year comparable period.

Research and product development expenses decreased by \$1.3 million, or 7.6% during the three months ended October 31, 2016 due to savings related to headcount reductions.

Selling and marketing expenses increased by \$3.0 million, or 19.7% during the three months ended October 31, 2016 primarily due to the \$2.2 million sales related costs associated with Oncura business and other sales related costs.

General and administrative expenses increased by \$0.4 million, or 3.0% during the three months ended October 31, 2016 primarily due to \$1.4 million of CEO transition related costs, partially offset by the suspension of the US federal medical device excise tax and lower compensation-related costs.

Restructuring expenses were \$0.03 million during the three months ended October 31, 2016, versus \$3.3 million recorded during the prior year comparable period, primarily due to expenses related to the Fiscal Year 2016 Restructuring Plan. Please refer to *Note 11. Restructuring charges* for more information on the Fiscal Year 2016 Restructuring Plan.

[Table of Contents](#)**Other expense, net**

Other expense, net was \$0.4 million and \$0.5 million during the three months ended October 31, 2016 and 2015, respectively. Other expense, net was predominantly due to foreign currency exchange losses from our foreign subsidiaries.

**Provision for income taxes**

The following table presents the provision for income taxes and our effective tax rate for the three months ended October 31, 2016 and 2015:

(in millions except percentages)	Three Months Ended October 31,	
	2016	2015
Provision for income taxes	\$ 1.0	\$ 0.2
Effective tax rate	28%	10%

The effective income tax rate on continuing operations is based upon the estimated income for the year, the composition of the income in different countries, and adjustments, if any, in the applicable quarterly periods for the potential tax consequences, benefits, resolutions of tax audits or other tax contingencies.

Our effective tax rate for the three months ended October 31, 2016 is lower than the statutory rate of 35% primarily due to income generated outside the United States in countries with lower tax rates, tax credits in the United States and Canada, and the manufacturing deduction in the United States. The tax provision for the three months ended October 31, 2016 includes discrete tax benefits totaling less than \$0.1 million.

Our effective tax rate for the three months ended October 31, 2015 is lower than the statutory rate of 35% primarily due to income generated outside the United States in countries with lower tax rates, and tax credits in Canada. The tax provision for the three months ended October 31, 2015 includes discrete tax benefits totaling \$0.2 million. Because the profits before tax in that period were \$1.5 million, the discrete tax benefits, though relatively small, had a large impact on the tax rate in the period.

We do not provide for U.S. Federal income taxes on undistributed earnings of consolidated foreign subsidiaries, as such earnings are intended to be indefinitely reinvested in those operations. Determination of the potential deferred income tax liability on these undistributed earnings is not practicable because such liability, if any, is dependent on circumstances that exist if and when remittance occurs. The circumstances that would affect the calculations would be the source location and amount of the distribution, the underlying tax rate already paid on the earnings, foreign withholding taxes and the opportunity to use foreign tax credits.

**Net income and diluted net income per share**

Net income and diluted net income per share are summarized as follows:

(in millions except percentages)	Three Months Ended October 31,	
	2016	2015
Net income	\$ 2.5	\$ 1.4
% of net revenue	2%	1%
Diluted net income per share from operations	\$ 0.20	\$ 0.11

The increase in net income and diluted net income per share for the three months ended October 31, 2016 was primarily due to higher revenues and lower operating expenses, partially offset by lower gross margin and a higher provision for income taxes

**Liquidity and Capital Resources**

Key liquidity and capital resource information are summarized as follows:

(in millions)	As of October 31, 2016	As of July 31, 2016	Percentage Change
Cash and cash equivalents (A)	\$ 142.0	\$ 118.7	20%
Working capital	\$ 316.6	\$ 310.3	2%

(A) Includes approximately \$46.5 million and \$45.3 million of cash and cash equivalents held outside the U.S. at October 31, 2016 and July 31, 2016, respectively.

As of October 31, 2016, we had cash and cash equivalents of \$142.0 million, a \$23.3 million increase from July 31, 2016, as we generated \$26.3 million in cash from operations and \$2.3 million from the issuance of stock. This was offset by \$3.3 million paid for additions to property and equipment, \$1.2 million cash payment to shareholders for dividends, and \$0.8 million for the shares surrendered for taxes for vested employee restricted stock grants.

[Table of Contents](#)

The increase in working capital from July 31, 2016 to October 31, 2016 was primarily attributable to an increase in cash of \$23.3 million, increase in income tax receivable of \$2.7 million, decrease in accrued restructuring charges of \$2.7 million, increase in prepaid expenses and other current assets of \$1.9 million, and a decrease in deferred revenue of \$0.8 million, partially offset by a decrease in accounts receivable of \$20.5 million, an increase in accounts payable of \$2.8 million, an increase in accrued income tax of \$1.2 million, and an increase in accrued employee compensation and benefits of \$0.5 million.

Cash and cash equivalents at October 31, 2016 and July 31, 2016 primarily consisted of demand deposits at highly rated banks and financial institutions. We periodically review our investment portfolio to determine if any investments are impaired due to changes in credit risk or other potential valuation concerns. We believe that our cash equivalents were appropriately valued at October 31, 2016 and July 31, 2016 and we are not aware of any market events that would impact their valuation. This could change in the future should new developments arise in the credit markets.

### Cash flows

Sources and uses of cash flows are summarized as follows:

(in millions, except percentages)	Three Months Ended		Percentage Change
	October 31, 2016	October 31, 2015	
Net cash provided by operating activities	\$ 26.5	\$ 13.7	93%
Net cash used in investing activities	(3.2)	(2.8)	14%
Net cash provided by (used in) financing activities	0.3	(4.2)	-107%
Effect of exchange rate changes on cash	(0.3)	—	100%
Net increase in cash and cash equivalents	\$ 23.3	\$ 6.7	248%

#### Operating activities

Net cash provided by operating activities during the three months ended October 31, 2016 primarily reflects our net income of \$2.5 million, \$5.5 million related to depreciation and amortization, as well as collection of accounts receivable, which decreased by \$20.0 million.

Net cash provided by operating activities during the three months ended October 31, 2015 primarily reflects our net income of \$1.4 million, as well as collections of accounts receivable, which decreased by \$25.4 million. This was partially offset by an increase in inventory of \$12.6 million to support growing demand and new product launches in fiscal year 2016.

#### Investing activities

Net cash used in investing activities during the three months ended October 31, 2016 was driven by purchases of property, plant and equipment of \$3.3 million.

Net cash used in investing activities during the three months ended October 31, 2015 was driven by purchases of property, plant and equipment of \$2.8 million.

#### Financing activities

Net cash provided by financing activities during the three months ended October 31, 2016 primarily reflected proceeds from the issuance of common stock amounting to \$2.3 million associated with share-based compensation and CEO transition related exercise of stock options, partially offset by \$1.2 million of dividends paid to stockholders and \$0.8 million used for shares surrendered for taxes paid related to vested employee restricted stock.

Net cash used in financing activities during the three months ended October 31, 2015 primarily reflected \$3.6 million used to repurchase common stock, \$1.2 million of dividends paid to stockholders and \$0.6 million used for shares surrendered for taxes paid related to vested employee restricted stock. This was partially offset by proceeds from the issuance of common stock amounting to \$1.2 million associated with share-based compensation.

We believe that our balances of cash and cash equivalents and cash flows expected to be generated by future operating activities will be sufficient to meet our cash requirements for at least the next 12 months.

**Commitments, Contractual Obligations, and Off-Balance Sheet Arrangements**

Our contractual obligations at October 31, 2016 related to our operating leases, purchase obligations, pension, and contingent consideration affect our liquidity and cash flows in future periods.

*Operating Leases* – Certain of our subsidiaries lease manufacturing and office space under non-cancelable operating leases. These leases contain renewal options. We lease certain other real property and equipment under operating leases which, in the aggregate, are not significant. At October 31, 2016 and July 31, 2016, total commitments related to our operating leases were \$5.9 million and \$6.5 million, respectively.

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## [Table of Contents](#)

*Purchase Obligations* – We enter into certain long-term agreements with customers, which obligate us to purchase goods or services. At October 31, 2016 and July 31, 2016, total purchase obligations were \$31.8 million and \$23.9 million, respectively.

*Pension* – Our Canadian subsidiary, Analogic Canada Corporation, formerly known as ANRAD Corporation, sponsors a defined benefit retirement plan called the Analogic Canada Corporation Retirement Plan, or the “Analogic Canada Plan”. The Analogic Canada Plan was frozen to new accruals during fiscal year 2015. The Analogic Canada Plan provides benefits to employees based on a formula recognizing length of service and final average earnings. Please refer to *Note 14. Retirement Plans* in our Annual Report on Form 10-K for the fiscal year ending 2016 for details. The benefit obligation at October 31, 2016 and July 31, 2015 totaled \$4.3 million and \$4.4 million, respectively.

*Contingent Consideration* – In connection with the acquisition of Oncura, as of October 31, 2016, we recorded a contingent consideration obligation of \$10.3 million. In connection with the acquisition of PocketSonics, as of October 31, 2016, we recorded a contingent consideration obligation of \$2.0 million. Please refer to *Note 6. Fair value measurements* for more information.

### *Financing Arrangements*

On November 23, 2015, we entered into a five-year revolving credit agreement, or Credit Agreement, with the financial institutions identified therein as lenders, which included JPMorgan Chase Bank, N.A., TD Bank, N.A., Wells Fargo Bank, N.A., HSBC Bank, N.A., and People’s United Bank, N.A. The Credit Agreement provides \$100.0 million in available credit and expires on November 23, 2020, when all outstanding borrowings must be paid in full. The credit facility does not require amortization of principal and may be reduced before maturity in whole or in part at our option without penalty. We did not have any borrowings outstanding under this Credit Agreement as of October 31, 2016. Please refer to *Note 15. Guarantees, commitments and contingencies* for more information on the Credit Agreement.

As of October 31, 2016, we also have approximately \$1.2 million in other revolving credit facilities with banks available for direct borrowings.

### *Tax Related Obligations*

At October 31, 2016, we had \$7.5 million of unrecognized tax benefits for uncertain tax positions and \$0.5 million of related accrued interest and penalties. We are unable to reasonably estimate the amount and period in which these liabilities might be paid. Please refer to *Note 13. Income taxes* to our consolidated financial statements for additional information regarding matters relating to income taxes, including unrecognized tax benefits.

### *Off-Balance Sheet Arrangements*

We do not have any off-balance sheet arrangements, as defined under SEC rules, during the periods presented.

### **Recent Accounting Pronouncements**

For a discussion of new accounting standards please refer to *Note 2. Recent accounting pronouncements* to our consolidated financial statements included within this report.

### **Critical Accounting Policies**

The accompanying discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. Our most critical accounting policies have a significant impact on the preparation of these consolidated financial statements. These policies include estimates and significant judgments that affect the reported amounts of assets, liabilities, revenue, and expenses, and related disclosures of contingent assets and liabilities.

For a detailed discussion of our critical accounting policies, please refer to Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, beginning on page 23, in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016. Those policies and the estimates involved in their application relate to revenue recognition, allocation of consideration in multiple element revenue arrangements, inventory write-down, share-based compensation, warranty reserves, business combinations, and impairment of goodwill and indefinite lived intangible assets, income tax contingencies, and deferred tax valuation allowances. We continue to evaluate our estimates and judgments on an on-going basis. By their nature, these policies require management to make difficult and subjective judgments, often on matters that are inherently uncertain. Our estimates and judgments are based on our historical experience, terms of existing contracts, observance of trends in the industry, information provided by our customers, and information available from other outside sources, as appropriate.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk**

Our market risks and the ways we manage them were summarized in Item 7A. Quantitative and Qualitative Disclosures about Market Risk of our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016. There have been no material changes during the three months ended October 31, 2016 to our market risks or to our management of such risks.

**Item 4. Controls and Procedures**

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of October 31, 2016. The term “disclosure controls and procedures”, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company’s management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions to be made regarding required disclosure. It should be noted that any system of controls and procedures, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system are met and that management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of October 31, 2016, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended October 31, 2016 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**

For a discussion of legal matters as of October 31, 2016, please refer to *Note 15. Guarantees, commitments and contingencies* to our consolidated financial statements included in this report.

**Item 1A. Risk Factors**

In addition to the other information set forth in this report, you should carefully consider the factors discussed in Part I, Item 1A. “Risk Factors” in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016, which could materially affect our business, financial condition, and future operating results. The risks described in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016, are not the only risks that we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition, and operating results. There have been no material changes to the risk factors set forth in our Annual Report on Form 10-K for fiscal year 2016, as filed with the SEC on September 27, 2016.

**Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**

The following table contains information about purchases by us of our equity securities during the three months ended October 31, 2016:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1) (2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (000's)
8/1/2016-8/31/2016	—	\$ —	256	\$ 16,006
9/1/2016-9/30/2016	—	\$ —	7,751	\$ 16,006
10/1/2016-10/31/2016	—	\$ —	1,280	\$ 16,006
<b>Total</b>	—	\$ —	9,287	

- (1) During the first quarter of fiscal year 2017 we did not repurchase shares of our common stock in open-market transactions. No shares were purchased in Q1 FY17 pursuant to a repurchase program authorized by our board of directors that was announced on June 2, 2014 to repurchase up to \$30 million of our common stock. The repurchase program does not have a fixed expiration date.

On May 26, 2016, our board of directors authorized the repurchase of up to \$15.0 million of our common stock. No shares have been repurchased under this program.

- (2) Includes 9,287 shares, consisting of 256 shares, 7,751 shares and 1,280 shares of our common stock, surrendered by employees in order to meet tax withholding obligations in connection with the vesting of restricted stock in August, September and October 2016, respectively.

**Item 6. Exhibits**

The exhibits listed on the Exhibit Index immediately preceding such exhibits, which is incorporated herein by reference, are filed or furnished as part of this Quarterly Report on Form 10-Q.

**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.

Date: December 7, 2016

**ANALOGIC CORPORATION**

/s/ Fred B. Parks

Fred B. Parks  
President and Chief Executive Officer  
(Principal Executive Officer)

Date: December 7, 2016

/s/ Mark T. Frost

Mark T. Frost  
Senior Vice President, Chief Financial Officer, and Treasurer  
(Principal Financial Officer)

**EXHIBIT INDEX**

<b><u>Exhibit</u></b>	<b><u>Description</u></b>	
*10.1	Employment Agreement, dated October 27, 2016, by and between Fred B. Parks and Analogic Corporation.	Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 27, 2016
*10.2	Separation and Release of Claim Agreement, dated October 27, 2016, between Analogic Corporation and James W. Green.	Exhibit 10.2 to the Company's Current Report on Form 8-K filed on October 27, 2016
10.3	Form of Notice to Executive Officers (at Vice President or higher level) Regarding the Fiscal Year 2017 Annual Incentive Plan	
10.4	Form of Director Annual Stock Retainer and Annual Retainer Deferral Election under Amended and Restated Employee Stock Purchase Plan	
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	
32.1	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	
32.2	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	
101	The following materials from Analogic Corporation's Quarterly Report on Form 10-Q for the quarter ended October 31, 2016 are formatted in XBRL (Extensible Business Reporting Language): (i) Consolidated Balance Sheets as of October 31, 2016 and July 31, 2016, (ii) Consolidated Statements of Operations for the Three Months Ended October 31, 2016 and 2015, (iii) Consolidated Statements of Comprehensive Income for the Three Months Ended October 31, 2016 and 2015, (iv) Consolidated Statements of Cash Flows for the Three Months Ended October 31, 2016 and 2015 and (v) Notes to Consolidated Financial Statements.	

**Analogic Corporation**  
**Annual Incentive Plan for Fiscal Year 2017**

<b>Employee:</b>	<b>Company:</b>
<b>Title:</b>	<b>Target Level:</b>
<b>Plan Year:</b> 8/1/2016 – 7/31/2017	<b>Supervisor:</b>

Congratulations! Analogic Corporation (the “Company”) has selected you to participate in its Annual Incentive Plan (the “Plan”) for Fiscal Year 2017. A summary of the terms of the Plan, as it applies to you, is shown below\*:

**1. Eligibility to Earn an Award**

You will be eligible to earn an award under the Plan if all of the following conditions apply:

- (a) Analogic achieves at least 50% of its Adjusted EBITDA budget for fiscal year 2017;
- (b) you are an employee of the company on July 31, 2017\*\*, or your employment is terminated involuntarily after January 31, 2017 and you are eligible for Severance Benefits.

**2. Performance Factors**

The Target Level for your award is listed above. Your actual award may be greater or less than the Target Level, depending on the Company’s results and your performance relative to Individual Objectives for the Plan year. If you are eligible to receive an award, your final award amount will be determined based upon the following performance factors:

- (a) *Analogic Adjusted EBITDA* – 70% of your award shall be determined by Analogic’s year-end results for Adjusted EBITDA relative to budget for fiscal year 2017.
- (b) *Analogic Revenue* – 30% of your award shall be determined by Analogic’s year-end results for total Company Revenue relative to budget for fiscal year 2017.

**3. Determining your Award**

- (a) Your award will be equal to your Target Level multiplied by your Eligible Base Earnings, adjusted for the actual performance measures relative to budget attained for 2017. Eligible Base Earnings means total base salary payments (including vacation, sick and holiday pay) made through Company payroll for the Plan year. Payments made to employees during approved medical leaves of absence are excluded.
- (b) Actual awards will range from 1 to two (2) times the Target Level for the performance factors
- (c) If you are not eligible for an award for the entire 2017 fiscal year or if your Target Level changes during the Plan year, your award will be pro-rated based on the number of months that you were eligible to receive the award.

This document is not an employment agreement, and terms of employment are unaffected because of this document. Equitable adjustments will be made to exclude the impact of acquisitions or divestitures during the performance period. The Company reserves the right to adjust awards up or down in its discretion based on exceptional circumstances. If Analogic Adjusted EBITDA is less than 50% of Budget, no awards will be earned under this plan.

\* For more information concerning the Plan, please contact the Human Resources Department

\*\* Because payment of an award under the Plan is determined in part upon the Company’s performance during the 2017 Fiscal Year, the payment date of any award will be after the completion of fiscal year 2017, as determined in the sole discretion of the Company’s Compensation Committee.

**DEFERRAL ELECTION FORM**  
**ANALOGIC CORPORATION AMENDED AND RESTATED**  
**NON-EMPLOYEE DIRECTOR STOCK PLAN (THE "PLAN")**

- I. Plan Year and Return Information.** This deferral election applies only to the Plan Year shown below. We must receive your completed form by the Return Date or your deferral election will not be effective.

Plan Year	CY2017
Return Date:	December 15, 2016
Return To:	Jackie Lucas at Analogic e-mail: jlucas@analogic.com

- II. Participant Name and Address**

Name:	
Address:	

- III. Annual Cash Retainer Deferral Election.** Please defer my Annual Cash Retainer (\$50,000 for CY2017) as shown below. The deferral percentage must be between 0% and 100%, in multiples of 10 ( e.g. , 10%, 20%, 30%, etc.). The total of the deferral percentages must equal either 0% or 100%.

Percentage Deferred as Deferred Stock Units	0%
Percentage Deferred into Cash Account	0%
<b>Total of above :</b>	0%

- IV. Annual Share Retainer Deferral Election.** Please defer the indicated portion of my Annual Share retainer into Deferred Stock Units as shown below. The deferral percentage must be between 0% and 100%, in multiples of 10 ( e.g. , 10%, 20%, 30%, etc.).

Percentage Deferred as Deferred Stock Units	0%
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- V. Distribution Election.** Please distribute the then-current value of my Deferred Stock Units and/or cash account for the current Plan Year when indicated below. Mark only one/select date as applicable.

<input type="checkbox"/>	Upon termination of my service to Analogic as a member of the Board of Directors.
<input type="checkbox"/> Date:	On the date shown (must be at least one year from the date of your election).

- VI. Participant Signature and Date.** I acknowledge that my deferral election is subject to the Plan and the Plan Prospectus, copies of which have been provided to me. Deferral elections that are contrary to the Plan or that are received after the Return Date will not be effective. Capitalized terms that are not defined in this form will have the definitions given to them in the Plan.

Signature:	Date:
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**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO RULE 13a-14(a)/RULE 15d-14(a)  
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Fred B. Parks, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Analogic Corporation;
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: December 7, 2016

/s/ Fred B. Parks  
\_\_\_\_\_  
Fred B. Parks  
President and Chief Executive Officer  
(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO RULE 13a-14(a)/RULE 15d-14(a)  
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED**

I, Mark T. Frost, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Analogic Corporation;
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: December 7, 2016

/s/ Mark T. Frost  
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Mark T. Frost  
Senior Vice President, Chief Financial Officer, and Treasurer  
(Principal Financial Officer)

**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**

In connection with the Quarterly Report on Form 10-Q of Analogic Corporation (the "Company") for the quarter ended October 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Fred B. Parks, President and Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that, to the best of his knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 7, 2016

/s/ Fred B. Parks  
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Fred B. Parks  
President and Chief Executive Officer  
(Principal Executive Officer)

**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**

In connection with the Quarterly Report on Form 10-Q of Analogic Corporation (the "Company") for the quarter ended October 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Mark T. Frost, Senior Vice President, Chief Financial Officer, and Treasurer, of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that, to the best of his knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 7, 2016

/s/ Mark T. Frost  
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Mark T. Frost  
Senior Vice President, Chief Financial Officer, and Treasurer  
(Principal Financial Officer)