ANALOGIC CORP
Form 10-Q
December 07, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended October 31, 2017

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

ANALOGIC CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts	04-2454372
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
8 Centennial Drive, Peabody, Massachusetts	01960
(Address of principal executive offices)	(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.)

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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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, 2017, there were 12,484,741 shares of common stock outstanding.

ANALOGIC CORPORATION

Form 10Q – Quarterly Report

For the Quarterly Period Ended October 31, 2017

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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, 2017	July 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$96,806	$129,298
Short-term marketable securities	50,555	18,797
Accounts receivable, net of allowance for doubtful accounts of $608 and $752 as of October 31, 2017 and July 31, 2017, respectively	73,111	77,587
Inventory	131,314	130,575
Income tax receivable	3,909	4,686
Prepaid expenses and other current assets	8,520	9,762
Total current assets	364,215	370,705
Long-term marketable securities	35,539	26,171
Property, plant, and equipment, net	100,302	102,676
Intangible assets, net	24,606	25,925
Goodwill	2,344	2,344
Deferred income taxes	5,056	5,168
Other assets	5,269	5,094
Total assets	$537,331	$538,083
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$25,728	$27,179
Accrued employee compensation and benefits	15,384	18,171
Accrued income tax	1,293	708
Accrued warranty	4,941	5,306
Accrued restructuring charges	1,436	2,786
Deferred revenue	5,479	4,774
Customer deposits	3,323	3,538
Other current liabilities	4,980	4,648
Total current liabilities	62,564	67,110
Long-term liabilities:		
Accrued income taxes, net of current portion	758	734
Other long-term liabilities	9,375	9,745
Total long-term liabilities	10,133	10,479
Guarantees, commitments and contingencies (Note 15)		
Stockholders' Equity:		

Common stock, $0.05 par value; 30,000,000 shares authorized and 12,486,441 shares issued and outstanding as of October 31, 2017; 30,000,000 shares authorized and 12,467,824 shares issued and outstanding as of July 31, 2017	623	622
Capital in excess of par value	158,223	157,907
Retained earnings	311,569	307,104
Accumulated other comprehensive loss	(5,781)	(5,139)
Total stockholders' equity	464,634	460,494
Total liabilities and stockholders' equity	$537,331	$538,083

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)

	Three Months Ended October 31,	
	2017	2016
Net revenue:		
Product	$105,752	$120,245
Engineering	1,123	873
Total net revenue	106,875	121,118
Cost of sales:		
Product	57,972	68,759
Engineering	1,136	723
Total cost of sales	59,108	69,482
Gross profit	47,767	51,636
Operating expenses:		
Research and product development	15,012	15,850
Selling and marketing	12,405	18,180
General and administrative	11,941	13,621
Restructuring	535	32
Total operating expenses	39,893	47,683
Income from operations	7,874	3,953
Other income (expense), net	238	(442)
Income before income taxes	8,112	3,511
Provision for income taxes	2,453	980
Net income	$5,659	$2,531
Net income per common share:		
Basic	$0.45	$0.20
Diluted	$0.45	$0.20
Weighted average shares outstanding:		
Basic	12,473	12,419
Diluted	12,599	12,616
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)

	Three Months Ended October 31,	
	2017	2016
Net income	$5,659	$2,531
Other comprehensive (loss) income , net of tax:		
Foreign currency translation adjustment, net of tax	(222)	(1,574)
Unrecognized gain on pension benefits, net of tax	42	58
Unrealized loss on foreign currency forward contracts, net of tax	(409)	(214)
Unrealized loss on available-for-sale securities, net of tax	(52)	-
Total other comprehensive loss, net of tax	(641)	(1,730)
Total comprehensive income	$5,018	$801

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

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ANALOGIC CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited, in thousands)

	Three Months Ended October 31,	
	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$5,659	$2,531
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for (benefit from) deferred income taxes	230	1,909
Depreciation and amortization	5,386	5,536
Share-based compensation expense	1,983	1,659
Amortization of demo equipment	912	456
Provision for excess and obsolescence inventory	496	392
Excess tax benefit from share-based compensation	-	(5)
Change in fair value of contingent consideration	-	64
(Benefit from) provision for doubtful accounts, net of recovery	(145)	48
Loss on sale of property, plant and equipment	217	(3)
Net changes in operating assets and liabilities:		
Accounts receivable	4,455	19,995
Inventory	(1,842)	(2,111)
Prepaid expenses and other assets	1,176	139
Accounts payable	(1,195)	2,679
Accrued liabilities	(4,703)	(2,491)
Deferred revenue	714	(791)
Customer deposits	(212)	98
Accrued income taxes and income taxes receivable	1,384	(1,521)
Other liabilities	(365)	(2,061)
NET CASH PROVIDED BY OPERATING ACTIVITIES	14,150	26,523
CASH FLOWS FROM INVESTING ACTIVITIES:		
Additions to property, plant, and equipment	(2,353)	(3,282)
Purchases of marketable securities	(44,738)	-
Proceeds from maturities of marketable securities	2,900	-
Proceeds from sales of marketable securities	473	-
Proceeds from the sale of property, plant, and equipment	76	69
NET CASH USED IN INVESTING ACTIVITIES	(43,642)	(3,213)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Issuance of stock pursuant to exercise of stock options, employee stock purchase plan, restricted stock plans, and non-employee director stock plan	466	2,336

Repurchase of common stock	(952)	-
Shares repurchased for taxes for vested employee restricted stock grants	(1,053)	(826)
Excess tax benefit from share-based compensation	-	5
Dividends paid to shareholders	(1,248)	(1,242)
NET CASH (USED IN) PROVIDED BY FINANCING ACTIVITIES	(2,787)	273
EFFECT OF EXCHANGE RATE CHANGES ON CASH	(213)	(328)
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(32,492)	23,255
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	129,298	118,697
CASH AND CASH EQUIVALENTS, END OF PERIOD	$96,806	$141,952
Supplemental disclosures of cash flow information:		
Non-cash transfer of demonstration inventory to fixed asset	796	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, 2017 and 2016 represent the first quarters of fiscal years 2018 and 2017, 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 three months ended October 31, 2017 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, 2017, or fiscal year 2017, included in our Annual Report on Form 10-K as filed with the SEC on September 26, 2017. 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.

2. Recent accounting pronouncements

Accounting pronouncements issued and recently adopted

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 was effective for us in the first quarter of fiscal 2018 ending July 31, 2018. Effective August 1, 2017, we adopted ASU 2016-09. We elected to account for forfeitures as they occur and therefore, share-based compensation expense for the first quarter of fiscal 2018 ended October 31, 2017 has been calculated based on actual forfeitures in our Consolidated Statements of Operations, rather than our previous approach which was net of estimated forfeitures. Subsequent to adoption, excess tax benefits or deficiencies from share-based payment awards are recorded in the Consolidated Statements of Operations as a component of the Provision for income taxes, whereas these previously were recognized in Capital in excess of par value (APIC) in the Consolidated Balance Sheets. Additionally, subsequent to adoption, we classified any excess tax benefits or deficiencies as an operating activity in the Consolidated Statement of Cash Flows on a prospective basis, while we previously classified excess tax benefits or deficiencies within financing activities within the Consolidated Statement of Cash Flows. The adoption of ASU 2016-09 resulted in a cumulative adjustment of a $0.8 million increase to Retained earnings as of August 1, 2017 on a modified retrospective basis.

Accounting pronouncements issued and not yet effective

Scope of Modification Accounting

In May 2017, the FASB issued ASU No. 2017-09, "Compensation – Stock Compensation (Topic 718)". The standard provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. ASU 2017-09 is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years, and should be applied prospectively to an award modified on or after the adoption date. 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.

Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost

In March 2017, the FASB issued ASU No. 2017-07, "Compensation — Retirement Benefits (Topic 715)". The standard improves the presentation of net periodic pension cost and net periodic postretirement benefit cost by requiring that an employer that offers to its employees defined benefit pension or other postretirement benefit plans report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The standard is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The standard will be effective for us in the fiscal year beginning August 1, 2018. We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

Clarifying the Definition of a Business

In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business." The amendments provide the requirements needed for a set of transferred assets and activities to be a business and establish a practical way to determine when a set of transferred assets and activities is not a business. To be considered a business, an acquisition would have to include an input and a substantive process that together significantly contribute to the ability to create outputs. An output is the result of inputs and substantive processes that provide goods or services to customers, other revenue, or investment income, such as dividends and interest. The amendments narrow the definition of outputs and align it with how outputs are described in Topic 606 "Revenue from Contracts with Customers". The amendments are effective for annual periods beginning after December 15, 2017, including interim periods within those periods. Early adoption is permitted. The standard will be effective for us in the fiscal year beginning August 1, 2018. We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

Intra-Entity Transfers of Assets Other than Inventory

In October 2016, the FASB issued ASU No. 2016-16, "Income Taxes (Topic 740)". The standard requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. Two common examples of assets included in the scope of this amendment are intellectual property and property, plant, and equipment. The amendments are effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within those annual reporting periods. Early adoption is permitted. The standard will be effective for us in the fiscal year beginning August 1, 2018. We are currently evaluating the impact of the adoption of this update on our consolidated financial statements.

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.

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments – Credit Losses (Topic 326)" The amendment modifies the measurement of expected credit losses of certain financial instruments. Credit losses relating to available-for-sale debt securities should be recorded through an allowance for credit losses. Available-for-sale accounting recognizes that value may be realized either through collection of contractual cash flows or through sale of the security. Therefore, the amendments limit the amount of the allowance for credit losses to the amount by which fair value is below amortized cost because the classification as available for sale is premised on an investment strategy that recognizes that the investment could be sold at fair value, if cash collection would result in the realization of an amount less than fair value. The allowance for credit losses for purchased available-for-sale securities with a more-than-insignificant amount of credit deterioration since origination is determined in a similar manner to other available-for-sale debt securities; however, the initial allowance for credit losses is added to the purchase price rather than reported as a credit loss expense. Only subsequent changes in the allowance for credit losses are recorded in credit loss expense. Interest income should be recognized based on the effective interest rate, excluding the discount embedded in the purchase price that is attributable to the acquirer's assessment of credit losses at acquisition. The amendments are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The standard will be effective for us in the fiscal year beginning after August 01, 2020. 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 expected to adopt the new standard in the first quarter of our fiscal year 2019 effective August 01, 2018. We are still in the early stage of assessing the adoption method and analyzing the impact of the adoption of this update on our consolidated financial statements. We established a project plan and an implementation team. Preliminary scoping and testing have been completed, with detail contract review underway. We are unable to quantify the impact at this time. The implementation team continues to apprise both

management and the Audit Committee of project status on a recurring basis.

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 bad debts charged against the reserve have been minimal.

Our top ten customers combined accounted for approximately 53% and 64% of our total net revenue for each of the three months ended October 31, 2017 and 2016, respectively. Set forth in the table below are customers that individually accounted for 10% or more of our net revenue.

	Three Months Ended October 31,	
	2017	2016
Koninklijke Philips Electronics N.V., or Philips	12 %	13 %
Siemens AG	12 %	13 %
L-3 Communications Corporation, or L-3	*	10 %

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, 2017	As of July 31, 2017
Philips	15 %	14 %
Smiths Detection	10 %	*
GE	*	11 %

Note (*): Total net accounts receivable balance was less than 10% in this period.

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, 2017	As of July 31, 2017
Raw materials	$ 60.1	$ 62.8
Work in process	43.8	41.8
Finished goods	27.4	26.0
Total inventory	$ 131.3	$ 130.6

5. Intangible assets and goodwill

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 the three months ended October 31, 2017 and July 31, 2017.

Finite-lived intangible assets are summarized as follows:

		As of October 31, 2017			As of July 31, 2017		
(in millions)	Weighted Average Amortization Period	Cost	Accumulated Amortization/ Write-Offs	Net	Cost	Accumulated Amortization	Net
Developed technologies	10 years	$17.7	$ 14.8	$2.9	$17.7	$ 14.4	$3.3
Customer relationships	13 years	43.7	29.6	14.1	43.7	28.7	15.0
Trade names	3 years	0.9	0.9	-	0.9	0.9	-
Total finite-lived intangible assets		$62.3	$ 45.3	$17.0	$62.3	$ 44.0	$18.3

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Amortization expense related to acquired intangible assets was $1.3 million and $2.0 million for each of the three months ended October 31, 2017 and 2016, respectively.

Goodwill

We had goodwill balances of $2.3 million at both October 31, 2017 and July 31, 2017. We review periodically or more frequently if indicators are present or changes in circumstances suggest that it is more likely than not that impairment may exist and we perform a formal goodwill impairment test in the second quarter of each fiscal year.

The goodwill balance by reportable segments and reporting unit at both the three months ended October 31, 2017 and July 31, 2017 are as follows:

	Medical Imaging	Ultrasound		Security and Detection	
(in millions)	(Medical Imaging Reporting Unit)	(Ultrasound Reporting Unit)	(Oncura Reporting Unit)	(Security and Detection Reporting Unit)	Total Goodwill
Balance as of July 31, 2017	$ 1.8	$ -	$ -	$ 0.5	$ 2.3
Balance as of October 31, 2017	$ 1.8	$ -	$ -	$ 0.5	$ 2.3

The following is a rollforward of accumulated goodwill impairment losses by reportable segment and reporting unit:

	Medical Imaging	Ultrasound		Security and Detection	
(in millions)	(Medical Imaging Reporting Unit)	(Ultrasound Reporting Unit)	(Oncura Reporting Unit)	(Security and Detection Reporting Unit)	Total
Accumulated impairment losses as of July 31, 2017	$ -	$(55.2)	$ (16.4)	$ -	$(71.6)
Accumulated impairment losses as of October 31, 2017	$ -	$(55.2)	$ (16.4)	$ -	$(71.6)

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.

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The following tables provide the assets and liabilities carried at fair value and measured on a recurring basis at October 31, 2017 and July 31, 2017:

	Fair Value Measurement as of October 31, 2017					
					Cash and	
	Adjusted	Unrealized	Unrealized	Fair	Cash	Marketable
(in millions)	Cost	Gains	Losses	Value	Equivalents	Securities
Cash	$43.4	$ -	$ -	$43.4	$ 43.4	$ -
Level 1:						
Money market funds	32.4	-	-	32.4	32.4	-
Subtotal	$75.8	$ -	$ -	$75.8	$ 75.8	$ -
Level 2:						
U.S. agency securities	$4.0	$ -	$ -	$4.0	$ -	$ 4.0
Non-U.S. government securities	10.5	-	-	10.5	-	10.5
Commercial paper	27.7	-	-	27.7	21.0	6.7
Corporate securities	40.4	-	(0.03)	40.4	-	40.4
Asset-backed securities	24.5	-	(0.02)	24.5	-	24.5
Subtotal	$107.1	$ -	$ (0.05)	$107.1	$ 21.0	$ 86.1
Total	$182.9	$ -	$ (0.05)	$182.9	$ 96.8	$ 86.1

	Fair Value Measurement as of July 31, 2017					
					Cash and	
	Adjusted	Unrealized	Unrealized	Fair	Cash	Marketable
(in millions)	Cost	Gains	Losses	Value	Equivalents	Securities
Cash	$46.7	$ -	$ -	$46.7	$ 46.7	$ -
Level 1:						
Money market funds	38.4	-	-	38.4	38.4	-
Subtotal	$85.1	$ -	$ -	$85.1	$ 85.1	$ -
Level 2:						
U.S. Treasury securities	$10.0	$ -	$ -	$10.0	$ 10.0	$ -
U.S. agency securities	7.0	-	-	7.0	7.0	-
Non-U.S. government securities	3.9	-	-	3.9	-	3.9
Commercial paper	30.1	-	-	30.1	27.2	2.9
Corporate securities	28.0	-	(0.01)	28.0	-	28.0
Asset-backed securities	10.2	-	-	10.2	-	10.2
Subtotal	$89.2	$ -	$ (0.01)	$89.2	$ 44.2	$ 45.0
Total	$174.3	$ -	$ (0.01)	$174.3	$ 129.3	$ 45.0

Plan assets for deferred compensation	As of	As of

(in millions)	October 31, 2017	July 31, 2017
Level 1:		
Plan assets for deferred compensation	4.8	4.7
Total	$ 4.8	$ 4.7

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 that are publicly traded on stock exchanges. Accordingly, the fair value of these assets is categorized as Level 1 within the fair value hierarchy.

Foreign currency forward contracts (in millions)	As of October 31, 2017	As of July 31, 2017
Level 2:		
Foreign currency forward contracts asset	0.1	0.6
Total	$ 0.1	$ 0.6

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.

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, 2017, we have forward contracts outstanding with notional amounts totaling $11.3 million. These contracts are designated as cash flow hedges, and the unrealized gain of $0.1 million, net of tax, on these contracts are reported in Accumulated other comprehensive income as of October 31, 2017. Assets and liability derivatives designated as hedging instruments are presented in other current assets and other current liabilities, respectively, on our Consolidated Balance Sheets. At October 31, 2017 we had a derivative asset of $0.1 million included in other current assets on our Consolidated Balance Sheet.

As of July 31, 2017, we had forward contracts outstanding with notional amounts totaling $10.9 million. These contracts are designated as cash flow hedges, and the unrealized gain of $0.5 million, net of tax, on these contracts are reported in Accumulated other comprehensive income as of July 31, 2017. At July 31, 2017 we had a derivative asset of $0.6 million included in other current assets 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, 2017 and 2016, we recorded approximately $0.2 million of realized gain and ($0.1) million of realized loss, respectively, included in our Consolidated Statements of Operations.

8. Common stock repurchases

On May 26, 2016, our board of directors authorized the repurchase of up to $15.0 million of our common stock. Purchases under this repurchase program will be made from time to time depending on market conditions and other factors. The repurchase program has no expiration date. The Board's authorization does not obligate the Company to acquire any particular amount of common stock, and the programs may be suspended or discontinued at any time at the Company's discretion.

During the three months ended October 31, 2017, we repurchased and retired 13,489 shares of common stock under this repurchase program for $1.0 million at an average purchase price of $70.52 per share. The cumulative shares that were repurchased and retired under the program were 61,197 shares of common stock for $4.4 million at an average purchase price of $71.10 per share.

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), changes in the unrealized value on foreign currency forward contracts (net of taxes), and changes in the unrealized value on available-for-sale securities (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.

The following table summarizes components of Accumulated other comprehensive (loss) income for the three months ended October 31, 2017:

(in millions)	Unrealized Losses on Available For Sale Securities	Unrealized Gain on Foreign Currency Forward Contracts	Unrealized Losses on Pension Plan	Currency Translation Adjustment	Accumulated Other Comprehensive Income
Balance as of July 31, 2017	$ (0.01)	$ 0.5	$ (3.5)	$ (2.1)	$ (5.1)
Pre-tax change before reclassification to earnings	(0.1)	-	0.1	-	-
Amount reclassified to earnings	-	(0.5)	-	-	(0.5)
Income tax benefit (provision)	-	0.1	(0.1)	(0.2)	(0.2)
Balance as of October 31, 2017	$ (0.1)	$ 0.1	$ (3.5)	$ (2.3)	$ (5.8)

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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, 2017	2016
Cost of product sales	$0.1	$0.1
Cost of engineering sales	-	-
Research and product development	0.4	0.3
Selling and marketing	0.2	0.4
General and administrative	1.3	0.8
Total share-based compensation expense before tax	2.0	1.6
Income tax effect	(0.1)	(0.5)
Share-based compensation expense included in net income	$1.9	$1.1

In the three months ended October 31, 2017, we adopted ASU 2016-09, “Improvements to Employee Share-Based Payment Accounting,” which amends ASC 718, “Stock Based Compensation.” We elected to account for forfeitures as they occur and therefore, share-based compensation expense for the three months ended October 31, 2017 has been calculated based on actual forfeitures, rather than our previous approach which was net of estimated forfeitures. The adoption of ASU 2016-09 resulted in a cumulative adjustment of a $0.8 million increase to Retained earnings as of August 1, 2017 on a modified retrospective basis. Share-based compensation expense for the three months ended October 31, 2016 was recorded net of estimated forfeitures, which were based on historical forfeitures and adjusted to reflect changes in facts and circumstances, if any. Please refer to "Note 2. Recent accounting pronouncements in the notes to our Consolidated Financial Statements for detailed adoption information.

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 three months ended October 31, 2017 and October 31, 2016, respectively.

The total intrinsic value of options exercised during the three months ended October 31, 2017 and 2016 was $0.01 million and $0.7 million, respectively.

Restricted stock and restricted stock units

We estimate the fair value of time based restricted stock units, or RSU's, 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.

For our total shareholder return, or TSR, awards, 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 22,080 and 28,148 TSR awards and 21,896 and 62,032 non-GAAP EPS awards during the three months ended October 31, 2017 and October 31, 2016, 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,	
	2017	2016
Stock price (1)	$77.15	$90.23
Expected volatility (2)	26.88 %	27.00 %
Risk-free interest rate (3)	1.48 %	0.85 %
Expected annual dividend yield (4)	0.00 %	0.00 %
Weighted average grant date fair value of time-based restricted stock awards	$77.14	$89.39
Weighted average grant date fair value of performance based restricted stock awards	$77.15	$87.05

(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, 2017 and 2016 was $3.1 million and $2.6 million, respectively.

As of October 31, 2017, the unrecognized compensation cost, related to unvested stock options and restricted stock was $13.3 million. This cost will be recognized over an estimated weighted average amortization period of 1.8 years and assumes target performance for the non-GAAP EPS awards.

11. Restructuring charges

Fiscal Year 2017 Restructuring Plan

On March 6, 2017, the Company announced the 2017 Restructuring Plan, which primarily focused on the restructuring of the Ultrasound business, designed to improve profitability and provide consistent long term growth. As part of the 2017 Restructuring Plan, the Company consolidated the activities conducted in Vancouver, British Columbia with the existing operations in Copenhagen, Denmark and Peabody, Massachusetts and the Company substantially exited the Vancouver facility at the end fiscal 2017. The Company re-sized its U.S. sales, global marketing as well as general and administration organizations in-line with its objectives within primarily its Ultrasound business, but also its Medical Imaging and Security and Detection businesses. We incurred pre-tax charges of $0.5 million during the three months ended October 31, 2017. These costs consisted of facility exit costs and adjustments to the severance and personnel related costs, which are recognized in our Consolidated Statement of

Operations under restructuring. We expect that the 2017 Restructuring Plan will be substantially completed during fiscal year 2018.

Current Period Activity

The following table summarizes accrued restructuring activities for the three months ended October 31, 2017:

(in millions)	Employee Severance and Benefits (A)	Facility Exit Costs (A)	Total
Balance at July 31, 2017	$ 2.7	$ 0.1	$ 2.8
Restructuring charge	0.4	0.3	0.7
Adjustments	(0.2)	-	(0.2)
Cash payments	(1.8)	-	(1.8)
Non-cash adjustments	-	(0.1)	(0.1)
Balance at October 31, 2017	$ 1.1	$ 0.3	$ 1.4

(A) Restructuring charges in fiscal year 2018 relate to the Fiscal Year 2017 Restructuring Plan.

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

(in millions)	Employee Severance and Benefits (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 relates to our fiscal year 2016 restructuring plan, which was completed in the fourth quarter of fiscal year 2017.

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

	For Three Months Ended October 31,	
(in millions)	2017	2016
Medical Imaging	$0.1	$0.02
Ultrasound	0.4	0.01
Security and Detection	-	-
Total restructuring and related charges	$0.5	$0.03

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:

	Three Months Ended October 31,	
(in millions, except per share data and share data in thousands)	2017	2016
Net income	$5.7	$2.5
Weighted average number of common shares	12,473	12,419

outstanding-basic		
Effect of dilutive securities:		
Stock options and restricted stock units	126	197
Weighted average number of common shares outstanding-diluted	12,599	12,616
Basic net income per share	$0.45	$0.20
Diluted net income per share	$0.45	$0.20
Anti-dilutive shares related to outstanding stock options and unvested restricted stock (A)	26	1

(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.

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13. Income taxes

The following table presents the provision for income taxes and our effective tax rate for the three months ended October 31, 2017 and 2016:

(in millions except percentages)	Three Months Ended October 31, 2017	2016
Provision for income taxes	$ 2.5	$ 1.0
Effective tax rate	30 %	28 %

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, 2017 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 the United States and Canada, offset by certain discrete tax expense. The tax provision for the three months ended October 31, 2017 includes discrete tax expense totaling $0.5 million.

Our effective tax rate for the three months ended October 31, 2016 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.

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, 2017, we have concluded all U.S. Federal income tax matters through the year ended July 31, 2013.

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, 2017 and July 31, 2017, we had approximately $0.1 million and $0.1 million accrued for interest and penalties on unrecognized tax benefits, respectively.

At October 31, 2017, we had $4.9 million of unrecognized tax benefits for uncertain tax positions and $0.1 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 Anesthesia 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.

The tables below present information about our reportable segments:

(in millions)	Three Months Ended October 31, 2017	2016
Product revenue:		
Medical Imaging	$52.0	$66.5
Ultrasound	37.4	35.6
Security and Detection	16.4	18.1
Total product revenue	$105.8	$120.2
Engineering revenue:		
Medical Imaging	$1.1	$0.7
Ultrasound	-	0.2
Security and Detection	-	-
Total engineering revenue	$1.1	$0.9
Net revenue:		
Medical Imaging	$53.1	$67.2
Ultrasound	37.4	35.8
Security and Detection	16.4	18.1
Total net revenue	$106.9	$121.1
Income (loss) from operations:		
Medical Imaging (A)	$4.8	$6.7
Ultrasound (B)	1.3	(5.8)
Security and Detection	1.8	3.0
Total income from operations	7.9	3.9
Total other income (loss), net	0.2	(0.4)
Income before income taxes	$8.1	$3.5

(in millions)	As of October 31, 2017	As of July 31, 2017
Identifiable total assets by segment:		
Medical Imaging	$159.6	$169.1
Ultrasound	132.7	133.6
Security and Detection	39.7	36.0
Total reportable segment assets	332.0	338.7
Corporate assets (C)	203.0	197.0
Total identifiable assets	$535.0	$535.7

(A) Includes restructuring charges of $0.1 million and $0.02 million for the three months ended October 31, 2017 and 2016, respectively.

(B) Includes restructuring charges of $0.4 million and $0.01 million for the three months ended October 31, 2017 and 2016, respectively.

(C) Includes cash and cash equivalents of $132.6 million and $135.2 million as of October 31, 2017 and July 31, 2017, respectively.

15. Guarantees, commitments and contingencies

Guarantees and Indemnification Obligations

Our standard OEM and supply agreements entered into 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 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, 2017.

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, 2017:

(in millions)	As of October 31, 2017
Beginning balance	$ 5.3
Provision	0.9
Warranty activity during the period	(1.3)
Ending balance	$ 4.9

At October 31, 2017 and July 31, 2017, we had deferred revenue for extended product warranty contracts of $0.4 million and $0.4 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. Effective August 25, 2017, HSBC exited the Credit Agreement, and was replaced with Citibank. 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:

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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, 2017, 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, 2017, 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.

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

As of October 31, 2017 and July 31, 2017, 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, 2017 and July 31, 2017, 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.

On July 31, 2017, twenty-four former interest-holders of Oncura Partners Diagnostics, LLC ("Plaintiffs") filed suit in the District Court of Travis County, Texas against Analogic Corporation ("Analogic") and Oncura Partners Diagnostics, LLC ("Oncura") (together "Defendants") alleging claims arising out of Analogic's acquisition of Oncura from Plaintiffs in 2016. Plaintiffs asserted claims for breach of contract, anticipatory repudiation, fraud, negligent misrepresentation, breach of implied duty of good faith and fair dealing, unjust enrichment, and declaratory judgement; they seek unspecified damages in excess of $1.0 million. On August 25, 2017, Defendants timely removed the action to federal court in Texas and the case was subsequently transferred to the United States District Court for the Southern District of New York. On September 29, 2017, Plaintiffs filed an Amended Complaint, setting forth the same claims and seeking the same damages set forth in their original pleading. We believe that the claims asserted by Plaintiffs are without merit and intend to defend the matter vigorously. We cannot reasonably estimate any loss or range of such loss that may arise from this matter at this time.

16. Subsequent events

We declared a dividend of $0.10 per share of common stock on December 1, 2017, which will be paid on December 29, 2017 to stockholders of record on December 15, 2017.

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 2017 as filed with the U.S. Securities and Exchange Commission, or SEC on September 26, 2017 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 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, 2017 and 2016 represent the first quarters of fiscal years 2018 and 2017, 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 Computed Tomography, subsystems for MRI 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 Anesthesia 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.

Financial Results

The following table summarizes our financial results:

(in millions, except per share amounts and percentages)	Three Months Ended October 31, 2017	2016	Percentage Change
Total net revenues	$106.9	$121.1	-12 %
Gross profit	$47.8	$51.6	-7 %
Gross margin	44.7 %	42.6 %	
Income from operations	$7.9	$3.9	103 %
Operating margin	7.4 %	3.2 %	
Net income	$5.7	$2.5	128 %
Diluted net income per share	$0.45	$0.20	125 %

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 2017, as filed with the SEC on September 26, 2017.

Results of Operations

Three months ended October 31, 2017 compared to the three months ended October 31, 2016

Net revenue

Product revenue

Product revenue by segment is summarized as follows:

(in millions except percentages)	Three Months Ended October 31, 2017	2016	Percentage Change
Medical Imaging	$52.0	$66.5	-22 %
Ultrasound	37.4	35.6	5 %
Security and Detection	16.4	18.1	-9 %
Total product revenue	$105.8	$120.2	-12 %

Medical Imaging

During the three months ended October 31, 2017, our Medical Imaging revenue decreased by 22%, primarily due to reductions in CT, MRI and digital Mammography, partially offset by increases in Motion due to additions of new customers.

Ultrasound

During the three months ended October 31, 2017, our Ultrasound revenue increased by 5%, primarily due to strong growth in direct sales of Ultrasound systems in North America and Europe.

Security and Detection

During the three months ended October 31, 2017, our Security and Detection revenue decreased by 9%, primarily driven by decreased volume in medium speed airport screening systems, partially offset by increases in high speed systems and increases in Rapid DNA system sales.

Engineering revenue

Engineering revenue by segment is summarized as follows:

(in millions except percentages)	Three Months Ended October 31, 2017	2016	Percentage Change	
Medical Imaging	$1.1	$0.7	57	%
Ultrasound	-	0.2	-100	%
Security and Detection	-	-	0	%
Total engineering revenue	$1.1	$0.9	22	%

The change in engineering revenue for the three months ended October 31, 2017 was primarily due to timing of work done on customer-funded engineering projects in the Medical Imaging segment.

Customer-funded engineering projects in each of the segments can vary substantially from period to period in terms of resource requirements, type, size, length of project, and profitability.

Gross margin

Product gross margin

Product gross margin is summarized as follows:

(in millions except percentages)	Three Months Ended October 31, 2017	2016	Percentage Change	
Product gross profit	$47.8	$51.5	-7	%
Product gross margin	45.2%	42.8%		

Product gross margin increased by 2.4 points during the three months ended October 31, 2017, primarily due to product/segment mix as well as ongoing cost control efforts.

Engineering gross margin

Engineering gross margin is summarized as follows:

(in millions except percentages)	Three Months Ended October 31, 2017	2016	Percentage Change
Engineering gross profit	$-	$0.1	-100 %
Engineering gross margin	-1.2%	17.2%	

The change in the engineering gross margin during the three months ended October 31, 2017 was due to the mix of engineering projects.

Operating expenses

Operating expenses are summarized as follows:

(in millions except percentages)	Three Months Ended October 31, 2017	2016	Percentage Change	Percentage of Net Revenue 2017	2016
Research and product development	$15.0	$15.9	-6 %	14 %	13 %
Selling and marketing	12.4	18.2	-32 %	12 %	15 %
General and administrative	11.9	13.6	-13 %	11 %	11 %
Restructuring	0.5	0.03	1567 %	1 %	0 %
Total operating expenses	$39.8	$47.7	-17 %	37 %	39 %

Operating expenses for the three months ended October 31, 2017 decreased by $7.9 million, or 17%, compared to the same period in 2016.

Research and product development expenses decreased by $0.9 million, or 6% during the three months ended October 31, 2017, due to headcount related savings.

Selling and marketing expenses decreased by $5.8 million, or 32% during the three months ended October 31, 2017, primarily due to headcount reductions, travel and lower other related costs.

General and administrative expenses decreased by $1.7 million, or 13% during the three months ended October 31, 2017, primarily due to $1.4 million in CEO transition related costs during the three months ended October 31, 2016, $1.0 million headcount reductions and lower consulting costs, partially offset by an increase in expenses of $1.1 million, primarily due to strategic transaction and legal expenses in the three months ended October 31, 2017.

Restructuring expenses were $0.5 million during the three months ended October 31, 2017 due to costs incurred associated with the Fiscal Year 2017 Restructuring Plan.

Other income (expense), net

Other income (expense), net is summarized as follows:

	Three Months Ended October 31,	
(in millions)	2017	2016
Interest income, net	$0.5	$-
Other, net	(0.3)	(0.4)
Total other income (expense), net	$0.2	$(0.4)

Other income (expense), net was $0.2 million during the three months ended October 31, 2017 compared to $(0.4) million during the three months ended October 31, 2016, predominantly due to interest income in connection with our marketable securities during the three months ended October 31, 2017.

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, 2017 and 2016:

	Three Months Ended October 31,	
(in millions except percentages)	2017	2016
Provision for income taxes	$2.5	$1.0
Effective tax rate	30 %	28 %

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, 2017 is lower than the statutory rate of 35% primarily due to operating income generated outside the United States with lower tax rates and tax credits in the United States and Canada, offset by certain discrete tax expense. The tax provision for the three months ended October 31, 2017 includes discrete tax expense totaling $0.5 million

Our effective tax rate for the three months ended October 31, 2016 was 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.

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, 2017, we have concluded all U.S. Federal income tax matters through the year ended July 31, 2013.

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, 2017 and July 31, 2017, we had approximately $0.1 million and $0.1 million accrued for interest and penalties on unrecognized tax benefits, respectively.

At October 31, 2017, we had $4.9 million of unrecognized tax benefits for uncertain tax positions and $0.1 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.

Net income and diluted net income per share

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

	Three Months Ended October 31,	
(in millions except percentages)	2017	2016
Net income	$5.7	$2.5
% of net revenue	5 %	2 %
Diluted net income per share from operations	$0.45	$0.20

Liquidity and Capital Resources

Key liquidity and capital resource information are summarized as follows:

(in millions)	As of October 31, 2017	As of July 31, 2017	Percentage Change
Cash and cash equivalents (A)	$96.8	$129.3	-25 %
Marketable securities	86.1	45.0	91 %
Working capital	$301.7	$303.6	-1 %

(A) Includes approximately $47.8 million and $47.7 million of cash and cash equivalents held outside the U.S. at October 31, 2017 and July 31, 2017, respectively.

As of October 31, 2017, we had cash and cash equivalents of $96.8 million, a $32.5 million decrease from July 31, 2017, as we generated $14.2 million in cash from operations, $2.9 million proceeds from maturities of marketable securities, $0.5 million proceeds from sales of marketable securities, and $0.5 million from the issuance of stock. This was offset by $44.7 million of purchases of marketable securities, $2.4 million paid for additions to property and equipment, $1.2 million cash payment to shareholders for dividends, $1.1 million for the shares surrendered for taxes for vested employee restricted stock grants, and $1.0 million for the repurchase of common stock.

The working capital from July 31, 2017 to October 31, 2017 was essentially flat. A $32.5 million decrease of cash and cash equivalents was offset by an increase of $31.8 million in short-term marketable securities.

Cash and cash equivalents at October 31, 2017 and July 31, 2017 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, 2017 and July 31, 2017 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 October 31, 2017	2016	Percentage Change
Net cash provided by operating activities	$14.2	$26.5	-46 %
Net cash used in investing activities	(43.7)	(3.2)	1266 %
Net cash (used in) provided by financing activities	(2.8)	0.3	-1033 %
Effect of exchange rate changes on cash	(0.2)	(0.3)	-33 %
Net (decrease) increase in cash and cash equivalents	$(32.5)	$23.3	-239 %

Operating activities

Net cash provided by operating activities during the three months ended October 31, 2017 primarily reflects our net income of $5.7 million, $5.8 million related to depreciation and amortization, as well as collection of accounts receivable, which decreased by $4.5 million.

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.

Investing activities

Net cash used in investing activities during the three months ended October 31, 2017 was driven by $44.7 million of purchases of marketable securities, purchases of property, plant and equipment of $2.4 million, and partially offset by $2.9 million proceeds from maturities of marketable securities and $0.5 million proceeds from sales of marketable securities.

The 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.

Financing activities

Net cash used in financing activities during the three months ended October 31, 2017 primarily reflected $1.2 million of dividends paid to stockholders, $1.1 million used for shares surrendered for taxes paid related to vested employee restricted stock, $1.0 million for repurchase of common stock, partially offset by proceeds from the issuance of common stock amounting to $0.5 million associated with share-based compensation.

The 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.

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, 2017 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, 2017 and July 31, 2017, total commitments related to our operating leases were $6.2 million and $4.4 million, respectively.

Purchase Obligations – We enter into certain long-term agreements with customers, which obligate us to purchase goods or services. At October 31, 2017 and July 31, 2017, total purchase obligations were $30.3 million and $23.2 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 2017 for details. The benefit obligation at October 31, 2017 and July 31, 2017 totaled $4.7 million and $4.8 million, respectively

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. Effective August 25, 2017, HSBC exited the Credit Agreement, and was replaced with Citibank. 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, 2017. Please refer to Note 15. Guarantees, commitments and contingencies for more information on the Credit Agreement.

As of October 31, 2017, we also have approximately $1.2 million in other revolving credit facilities with banks available for direct borrowings.

Tax Related Obligations

At October 31, 2017, we had $4.9 million of unrecognized tax benefits for uncertain tax positions and $0.1 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.

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.

On July 31, 2017, twenty-four former interest-holders of Oncura Partners Diagnostics, LLC ("Plaintiffs") filed suit in the District Court of Travis County, Texas against Analogic Corporation ("Analogic") and Oncura Partners Diagnostics, LLC ("Oncura") (together "Defendants") alleging claims arising out of Analogic's acquisition of Oncura from Plaintiffs in 2016. Plaintiffs asserted claims for breach of contract, anticipatory repudiation, fraud, negligent misrepresentation, breach of implied duty of good faith and fair dealing, unjust enrichment, and declaratory judgement; they seek unspecified damages in excess of $1.0 million. On August 25, 2017, Defendants timely removed the action to federal court in Texas and the case was subsequently transferred to the United States District Court for the Southern District of New York. On September 29, 2017, Plaintiffs filed an Amended Complaint, setting forth the same claims and seeking the same damages set forth in their original pleading. We believe that the claims asserted by Plaintiffs are without merit and intend to defend the matter vigorously. We cannot reasonably estimate any loss or range of such loss that may arise from this matter at this time.

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.

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 2017, as filed with the SEC on September 26, 2017. There has been no material changes during the three months ended October 31, 2017 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, 2017. 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, 2017, 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, 2017 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, 2017, 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 2017, as filed with the SEC on September 26, 2017, 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 2017, as filed with the SEC on September 26, 2017, 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 2017, as filed with the SEC on September 26, 2017.

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, 2017:

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)
8/1/2017-8/31/2017	11,044	$ 70.09	11,129	$ 10,826
9/1/2017-9/30/2017	2,445	$ 72.45	15,878	$ 10,649
10/1/2017-10/31/2017	-	$ -	168	$ 10,649
Total	13,489	$ 70.52	27,175	$ 10,649

(1) During the first quarter of fiscal year 2018 we repurchased 13,489 shares of our common stock in open-market transactions for $1.0 million at an average purchase price of $70.52 per share. These shares were purchased in Q1 FY18 pursuant to a repurchase program authorized by our board of directors that was announced on May 26, 2016 to repurchase up to $15 million of our common stock. These repurchase programs do not have a fixed expiration date.

(2) Includes 13,686 shares, consisting of 85 shares, 13,433 shares and 168 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 2017, respectively.

Item 5. Other Information

On December7, 2017, the Company entered into severance agreements (each, a “Severance Agreement”) with Michael Bourque, Mervat Faltas, and Brooks West (each, an “Executive”). Each Severance Agreement also includes a form of release and reaffirmation agreement (the “Release Agreement”) and a non-competition and non-solicitation agreement attached to the Separation Agreement as Exhibit A and Exhibit B, respectively. The full text of the form of Severance Agreement, including the exhibits, is attached as Exhibit 10.3 to this quarterly report on Form 10-Q and incorporated herein by reference. The following description of the Severance Agreements is qualified in its entirety by reference to the attached form of Severance Agreement.

The Severance Agreements provide that, if the applicable Executive's employment is terminated by the Company other than for cause, other than by reason of the Executive's death or disability, and other than in connection with a change in control, and subject to Executive's execution the Release Agreement and such Release Agreement becoming irrevocable (the "Severance Conditions"), the Company will (a) pay Executive's then applicable annualized base salary for a period of twelve months following the date of termination (the "Severance Period"), such payments to be made in approximately equal installments according to the Company's then-current payroll practices; (b) subsidize Executive's COBRA premiums to continue Executive's coverage (including coverage for the Participant's eligible dependents, if applicable) during the Severance Period, such that the Executive will be required to pay the contributions required of active employees during the Severance Period; (c) pay to the Executive a sum equal to the Executive's actual incentive award, if any, as calculated according to the annual incentive plan for the fiscal year in which the Executive's termination occurs; and (d) as elected by Executive on or before the date Executive executes the Release Agreement, provide one of (i) outplacement services provided through a Company-approved plan and provider for a period not to exceed the Severance Period, such services not to have a cost to the Company in excess of $10,000.00; or (ii) a lump sum payment in the amount of $10,000.00.

If, within twenty four (24) months following a change in control, the Executive's employment is (i) terminated by the Company without cause and not for death or disability, or (ii) if Executive resigns his or her employment for good reason, the Company shall,

subject to the Severance Conditions, pay the Executive (a) the amounts set forth in the preceding paragraph at the times provided therein; and (b) an amount equal to sixty percent (60%) of the Executive's most recent annualized base salary, payable on the first payroll date following the date on which the Release Agreement becomes irrevocable.

If the Executive's employment is terminated by the Company for cause, or by reason of the Executive's death or disability, the Severance Agreement will terminate without further obligations to the Executive, other than the payment of accrued obligations.

The Severance Agreements supersede any previous agreements between the applicable Executive and the Company relating to severance and post-employment benefits and payments.

Item 6. Exhibits

10.1 Form of Notice to Executive Officers (at Vice President or higher level) Regarding the Fiscal Year 2018 Annual Incentive Plan

10.2 Form of Director Annual Stock Retainer and Annual Retainer Deferral Election under Amended and Restated Employee Stock Purchase Plan

10.3 Form of Executive Severance Agreeement dated December 7, 2017

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

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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.

	ANALOGIC CORPORATION
Date: December 7, 2017	/s/ Fred B. Parks Fred B. Parks
	President and Chief Executive Officer
	(Principal Executive Officer)
Date: December 7, 2017	/s/ Michael J. Bourque Michael J. Bourque
	Senior Vice President, Chief Financial Officer, and Treasurer
	(Principal Financial and Accounting Officer)