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

FORM 10-Q

(Mark One)

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

For the Quarterly Period Ended July 1, 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: 001-33962

COHERENT, INC.

Delaware	**94-1622541**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

5100 Patrick Henry Drive, Santa Clara, California 95054
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(408) 764-4000**

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

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

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

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

The number of shares outstanding of registrant's common stock, par value $.01 per share, on August 8, 2017 was 24,631,458.

COHERENT, INC.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This quarterly report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements included in or incorporated by reference in this quarterly report, other than statements of historical fact, are forward-looking statements. These statements are generally accompanied by words such as “trend,” “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “rely,” “believe,” “estimate,” “predict,” “intend,” “potential,” “continue,” "outlook," “forecast” or the negative of such terms, or other comparable terminology, including without limitation statements made under “Our Strategy,” and in “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. Actual results of Coherent, Inc. (referred to herein as the Company, we, our or Coherent) may differ significantly from those anticipated in these forward-looking statements as a result of various factors, including those discussed in the sections captioned “Our Strategy,” “Risk Factors,” “Key Performance Indicators,” as well as any other cautionary language in this quarterly report. All forward-looking statements included in the document are based on information available to us on the date hereof. We undertake no obligation to update these forward-looking statements as a result of events or circumstances or to reflect the occurrence of unanticipated events or non-occurrence of anticipated events.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

COHERENT, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited; in thousands, except per share data)

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Net sales	**$ 464,107**	$ 218,767	**$ 1,233,013**	$ 608,924
Cost of sales	**256,921**	124,208	**704,798**	341,868
Gross profit	**207,186**	94,559	**528,215**	267,056
Operating expenses:				
Research and development	**30,483**	21,441	**88,103**	61,536
Selling, general and administrative	**72,383**	46,256	**218,602**	123,970
Gain from business combination	**—**	—	**(5,416)**	—
Amortization of intangible assets	**3,743**	574	**13,060**	1,975
Total operating expenses	**106,609**	68,271	**314,349**	187,481
Income from operations	**100,577**	26,288	**213,866**	79,575
Other income (expense):				
Interest income	**282**	351	**560**	854
Interest expense	**(7,494)**	(63)	**(24,456)**	(108)
Other—net	**(730)**	564	**10,871**	(1,896)
Total other income (expense), net	**(7,942)**	852	**(13,025)**	(1,150)
Income from continuing operations before income taxes	**92,635**	27,140	**200,841**	78,425
Provision for income taxes	**29,764**	8,490	**65,084**	21,708
Net income from continuing operations	**62,871**	18,650	**135,757**	56,717
Loss from discontinued operations, net of income taxes	**(1,754)**	—	**(2,387)**	—
Net income	**$ 61,117**	$ 18,650	**$ 133,370**	$ 56,717
Basic net income per share:				
Income per share from continuing operations	**$ 2.56**	$ 0.77	**$ 5.55**	$ 2.35
Loss per share from discontinued operations, net of income taxes	**$ (0.07)**	$ —	**$ (0.10)**	$ —
Net income per share	**$ 2.49**	$ 0.77	**$ 5.45**	$ 2.35
Diluted net income per share:				
Income per share from continuing operations	**$ 2.53**	$ 0.76	**$ 5.49**	$ 2.33
Loss per share from discontinued operations, net of income taxes	**$ (0.07)**	$ —	**$ (0.10)**	$ —
Net income per share	**$ 2.46**	$ 0.76	**$ 5.39**	$ 2.33
Shares used in computation:				
Basic	**24,537**	24,192	**24,460**	24,108
Diluted	**24,823**	24,467	**24,741**	24,355

See Accompanying Notes to Condensed Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited; in thousands)

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Net income	**$ 61,117**	$ 18,650	**$ 133,370**	$ 56,717
Other comprehensive income (loss): [1]				
Translation adjustment, net of taxes [2]	**19,893**	(6,396)	**15,815**	(1,334)
Net loss on derivative instruments, net of taxes [3]	**—**	—	**—**	(28)
Changes in unrealized gains (losses) on available-for-sale securities, net of taxes [4]	**—**	(37)	**(3,334)**	2,426
Defined benefit pension plans, net of taxes [5]	**(401)**	—	**133**	—
Other comprehensive income (loss), net of tax	**19,492**	(6,433)	**12,614**	1,064
Comprehensive income	**$ 80,609**	$ 12,217	**$ 145,984**	$ 57,781

(1) Reclassification adjustments were not significant during the three and nine months ended July 1, 2017 and July 2, 2016.

(2) Tax expenses (benefits) of $0 and $(326) were provided on translation adjustments during the three and nine months ended July 1, 2017, respectively. Tax expenses of $185 and $304 were provided on translation adjustments during the three and nine months ended July 2, 2016, respectively.

(3) Tax expenses (benefits) of $0 and $(17) were provided on net gain (loss) on derivative instruments during the three and nine months ended July 2, 2016, respectively.

(4) Tax expenses (benefits) of $0 and $(1,878) were provided on changes in unrealized gains (losses) on available-for-sale securities for the three and nine months ended July 1, 2017, respectively. Tax expenses (benefits) of $(22) and $1,415 were provided on changes in unrealized gains (losses) on available-for-sale securities for the three and nine months ended July 2, 2016, respectively.

(5) Tax benefits of $(56) and $(35) were provided on changes in defined benefit pension plans for the three and nine months ended July 1, 2017, respectively.

See Accompanying Notes to Condensed Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited; in thousands, except par value)

	July 1, 2017	October 1, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	**$ 472,307**	$ 354,347
Restricted cash	**1,060**	—
Short-term investments	**120**	45,606
Accounts receivable—net of allowances of $5,934 and $2,420, respectively	**277,853**	165,715
Inventories	**402,849**	212,898
Prepaid expenses and other assets	**74,827**	37,073
Assets held-for-sale	**32,556**	—
Total current assets	**1,261,572**	815,639
Property and equipment, net	**268,622**	127,443
Goodwill	**410,417**	101,458
Intangible assets, net	**202,690**	13,874
Non-current restricted cash	**12,524**	—
Other assets	**122,604**	102,734
Total assets	**$ 2,278,429**	$ 1,161,148
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings and current-portion of long-term obligations	**$ 5,485**	$ 20,000
Accounts payable	**72,755**	45,182
Income taxes payable	**71,427**	19,870
Other current liabilities	**229,642**	116,442
Total current liabilities	**379,309**	201,494
Long-term obligations	**652,700**	—
Other long-term liabilities	**178,378**	48,826
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Common stock, Authorized—500,000 shares, par value $.01 per share:		
Outstanding—24,631 shares and 24,324 shares, respectively	**245**	242
Additional paid-in capital	**162,525**	151,298
Accumulated other comprehensive income (loss)	**7,314**	(5,300)
Retained earnings	**897,958**	764,588
Total stockholders' equity	**1,068,042**	910,828
Total liabilities and stockholders' equity	**$ 2,278,429**	$ 1,161,148

See Accompanying Notes to Condensed Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited; in thousands)

	Nine Months Ended	
	July 1, 2017	July 2, 2016
Cash flows from operating activities:		
Net income	$ 133,370	$ 56,717
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	31,576	19,410
Amortization of intangible assets	44,303	6,201
Gain on business combination	(5,416)	—
Deferred income taxes	1,964	(3,356)
Amortization of debt issuance cost	2,970	—
Stock-based compensation	19,078	14,821
Non-cash restructuring charges	4,395	—
Other non-cash expense	201	387
Changes in assets and liabilities, net of effect of acquisitions:		
Accounts receivable	(23,519)	(4,195)
Inventories	4,067	(43,627)
Prepaid expenses and other assets	(3,902)	(4,809)
Other long-term assets	(3,319)	(577)
Accounts payable	6,535	9,824
Income taxes payable/receivable	28,319	(2,759)
Other current liabilities	39,849	4,519
Other long-term liabilities	5,729	2,065
Cash flows from discontinued operations	(918)	—
Net cash provided by operating activities	285,282	54,621
Cash flows from investing activities:		
Purchases of property and equipment	(45,352)	(28,310)
Proceeds from dispositions of property and equipment	1,002	422
Purchases of available-for-sale securities	—	(180,842)
Proceeds from sales and maturities of available-for-sale securities	25,113	144,966
Acquisition of businesses, net of cash acquired	(740,481)	—
Cash flows from discontinued operations	(649)	—
Net cash used in investing activities	(760,367)	(63,764)
Cash flows from financing activities:		
Short-term borrowings	7,602	54,792
Repayments of short-term borrowings	(29,240)	(34,792)
Proceeds from long-term borrowings	740,685	—
Repayments of long-term borrowings	(88,826)	—
Cash paid to subsidiaries' minority shareholders	(816)	—
Issuance of common stock under employee stock option and purchase plans	8,111	7,249
Net settlement of restricted common stock	(15,690)	(5,414)
Increase in cash overdraft	—	880
Debt issuance costs	(26,367)	(2,530)
Net cash provided by financing activities	595,459	20,185
Effect of exchange rate changes on cash, cash equivalents and restricted cash	11,170	(2,242)
Net increase in cash, cash equivalents and restricted cash	131,544	8,800
Cash, cash equivalents and restricted cash, beginning of period	354,347	130,607
Cash, cash equivalents and restricted cash, end of period	$ 485,891	$ 139,407
Noncash investing and financing activities:		
Unpaid property and equipment purchases	$ 1,950	$ 2,538
Use of previously owned equity shares in acquisition	$ 20,685	$ —

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets that sum to the total of the same amounts shown in the condensed consolidated statements of cash flows.

	July 1, 2017	July 2, 2016
Cash and cash equivalents	$ 472,307	$ 139,407
Restricted cash, current	1,060	—
Restricted cash, non-current	12,524	—
Total Cash, cash equivalents, and restricted cash shown in the condensed consolidated statement of cash flows	$ 485,891	$ 139,407

See Accompanying Notes to Condensed Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. BASIS OF PRESENTATION

The accompanying unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) have been condensed or omitted pursuant to such rules and regulations. These interim condensed consolidated financial statements and notes thereto should be read in conjunction with the condensed consolidated financial statements and notes thereto filed by Coherent, Inc. on Form 10-K for the fiscal year ended October 1, 2016. In the opinion of management, all adjustments necessary for a fair presentation of financial condition and results of operation as of and for the periods presented have been made and include only normal recurring adjustments. Interim results of operations are not necessarily indicative of results to be expected for the year or any other interim periods. Our fiscal year ends on the Saturday closest to September 30 and our third fiscal quarters include 13 weeks of operations in each fiscal year presented. Fiscal year 2017 and 2016 both include 52 weeks.

The consolidated financial statements include the accounts of Coherent, Inc. and its direct and indirect subsidiaries (collectively, the "Company", "we", "our", "us" or "Coherent"). Intercompany balances and transactions have been eliminated.

On November 7, 2016, we acquired Rofin-Sinar Technologies, Inc. and its direct and indirect subsidiaries ("Rofin"). The significant accounting policies of Rofin have been aligned to conform to those of Coherent, and the consolidated financial statements include the results of Rofin as of the acquisition date.

The preparation of consolidated financial statements in conformity with Generally Accepted Accounting Principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

As a result of the acquisition of Rofin in the first quarter of fiscal 2017, we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company based upon the organizational structure of the combined company and how the chief operating decision maker ("CODM") receives and utilizes information provided to allocate resources and make decisions: OEM Laser Sources (“OLS”) and Industrial Lasers & Systems (“ILS”). Accordingly, our segment information was restated retroactively in the first quarter of fiscal 2017. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment.

2. RECENT ACCOUNTING STANDARDS

Adoption of New Accounting Pronouncement

In November 2016, the FASB issued amended guidance that require a statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The new standard will become effective for our fiscal year beginning September 30, 2018. We elected to early adopt the standard in the first quarter of fiscal 2017 on a retrospective basis with no impact on our condensed consolidated financial statements and disclosures.

In April 2015, the FASB issued amended guidance that simplifies the presentation of debt issuance costs by requiring that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amended guidance. The new standard became effective for our fiscal year beginning October 2, 2016. We elected to early adopt the standard in the second quarter of fiscal 2016 and had recorded debt issuance costs of $5.2 million in other assets as of October 1, 2016 for the debt commitment we entered into in the second quarter of fiscal 2016 because the debt was not outstanding as of October 1, 2016. The debt issuance costs related to the term loan facility were reclassified to debt in the first quarter of fiscal 2017 when we drew down the debt.

Recently Issued Accounting Pronouncements

In May 2017, the FASB issued amended guidance about which changes to the terms or conditions of a share-based payment require an entity to apply modification accounting. Under the new guidance, an entity should account for the effects of a modification unless, comparing to the original award prior to modification, the fair value, the vesting conditions and the classification as equity or as a liability of the modified award are all the same. The amendments in this update should be applied prospectively to an award modified on or after the adoption date. The new standard will become effective for our fiscal year beginning September 30, 2018. We are currently assessing the impact of this amended guidance.

In January 2017, the FASB issued amended guidance that simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the existing guidance, when computing the implied fair value of goodwill under Step 2, an entity is required to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Under the amendments in this update, an entity should simply perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The new standard will become effective for our fiscal year beginning October 2, 2021. We plan to elect early adoption of the standard in the fourth quarter of fiscal 2017.

In October 2016, the FASB issued amended guidance that improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. Under the new guidance, an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The new standard will become effective for our fiscal year beginning September 30, 2018. We are currently assessing the impact of this amended guidance and the timing of adoption.

In March 2016, the FASB issued amended guidance that simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. Under the new guidance, an entity recognizes all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement. This change eliminates the notion of the APIC pool and significantly reduces the complexity and cost of accounting for excess tax benefits and tax deficiencies. The new standard will become effective for our fiscal year beginning October 1, 2017. Upon adoption in the first quarter of fiscal 2018, we expect to recognize a windfall tax benefit as a cumulative effect adjustment increase to our opening retained earnings of approximately $22 million to $25 million together with a comparable increase in deferred tax assets.

In May 2014, the FASB amended the Accounting Standards Codification and created a new Topic 606, "Revenue from Contracts with Customers". In May 2016, accounting guidance was issued to clarify the not yet effective revenue recognition guidance issued in May 2014. This additional guidance does not change the core principle of the revenue recognition guidance issued in May 2014, rather, it provides clarification of accounting for collections of sales taxes as well as recognition of revenue (i) associated with contract modifications, (ii) for noncash consideration, and (iii) based on the collectability of the consideration from the customer. The guidance also specifies when a contract should be considered "completed" for purposes of applying the transition guidance. The effective date and transition requirements for this guidance are the same as the effective date and transition requirements for the guidance previously issued in 2014, which is effective for our fiscal year 2019, which begins September 30, 2018. We are currently evaluating the new guidance and do not expect the guidance to have a material impact on our financial statements. We have not decided upon the method of adoption.

3. BUSINESS COMBINATIONS

Fiscal 2017 Acquisitions

Rofin

On November 7, 2016, we completed our acquisition of Rofin pursuant to the Merger Agreement dated March 16, 2016. Rofin is one of the world's leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment.

As a condition of the acquisition, we are required to divest ourselves of Rofin's low power CO2 laser business based in Hull, United Kingdom (the "Hull Business"), and will report this business separately as a discontinued operation until it is divested (See Note 18, "Discontinued Operations").

In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business and submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. The European Commission has not yet determined whether it will approve or decline our proposed purchaser and the terms of such divestiture.

Due to the timing of the acquisition, the total purchase consideration has been allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on a preliminary valuation analysis. These preliminary values may change in future reporting periods upon finalization of the valuation, which will occur no later than the fourth quarter of fiscal 2017.

The total purchase consideration allocated to net assets acquired was approximately $936.3 million and consisted of the following (in thousands):

Cash consideration to Rofin's shareholders	$	904,491
Cash settlement paid for Rofin employee stock options		15,290
Total cash payments to Rofin shareholders and option holders		919,781
Add: fair value of previously owned Rofin shares		20,685
Less: post-merger stock compensation expense		(4,152)
Total purchase price to allocate	$	936,314

The acquisition was an all-cash transaction at a price of $32.50 per share of Rofin common stock. We funded the payment of the aggregate consideration with a combination of our available cash on hand and the proceeds from the Euro Term Loan described in Note 9. The total payment of $15.3 million due to the cancellation of options held by employees of Rofin was allocated between total estimated merger consideration of $11.1 million and post-merger stock-based compensation expense of $4.2 million based on the portion of the total service period of the underlying options that had not been completed by the merger date.

We recognized a gain of $5.4 million in the first quarter of fiscal 2017 on the increase in fair value from the date of purchase for the shares of Rofin we owned before the acquisition.

Under the acquisition method of accounting, the total estimated acquisition consideration is allocated to the acquired tangible and intangible assets and assumed liabilities of Rofin based on their fair values as of the acquisition date. Any excess of the acquisition consideration over the fair value of assets acquired and liabilities assumed is allocated to goodwill. We expect that all such goodwill will not be deductible for tax purposes.

In the third quarter of fiscal 2017, we re-evaluated the carrying value of the Hull Business that has been presented as assets held for sale since the acquisition. Approximately $33.9 million of goodwill was reallocated from the assets held for sale to the remaining business acquired as we are within the remeasurement period.

Our preliminary allocation of the purchase price is as follows (in thousands):

Cash, cash equivalents and short-term investments	$	163,425
Accounts receivable		90,877
Inventory		189,869
Prepaid expenses and other assets		16,111
Assets held-for-sale, current		29,545
Property and equipment		126,507
Other assets		31,464
Intangible assets:		
Existing technology		169,029
In-process research and development		6,000
Backlog		5,600
Customer relationships		39,209
Trademarks		5,699
Patents		300
Goodwill		298,539
Current portion of long-term obligations		(3,633)
Current liabilities held for sale		(7,001)
Accounts payable		(21,603)
Other current liabilities		(67,452)
Long-term debt		(11,641)
Other long-term liabilities		(124,530)
Total	$	936,314

The fair value write-up of acquired finished goods and work-in-process inventory was $26.8 million, which was amortized over the expected period during which the acquired inventory is sold, or 6 months. Accordingly, for the three and nine months ended July 1, 2017, we recorded $4.4 million and $26.4 million, respectively, of incremental cost of sales associated with the fair value write-up of inventory acquired in the merger with Rofin. The fair value write-up of inventory acquired was fully amortized as of July 1, 2017.

The fair value write-up of acquired property, plant and equipment of $36.8 million will be amortized over the useful lives of the assets, ranging from 3 to 31 years. Property, plant and equipment is valued at its value-in-use, unless there was a known plan to dispose of the asset.

The acquired existing technology, backlog, trademarks and patents are being amortized on a straight-line basis, which approximates the economic use of the asset, over their estimated useful lives of 3 to 5 years, 6 months, 3 years, and 5 years, respectively. Customer relationships are being amortized on an accelerated basis utilizing free cash flows over periods ranging from 5 to 10 years. The useful lives of in-process research and development will be defined in the future upon further evaluation of the status of these applications. The fair value of the acquired intangibles was determined using the income approach. In performing these valuations, the key underlying probability-adjusted assumptions of the discounted cash flows were projected revenues, gross margin expectations and operating cost estimates. The valuations were based on the information that was available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by our management. There are inherent uncertainties and management judgment required in these determinations. This acquisition resulted in a purchase price that exceeded the estimated fair value of tangible and intangible assets, which was allocated to goodwill.

We believe the amount of goodwill relative to identifiable intangible assets relates to several factors including: (1) potential buyer-specific synergies related to market opportunities for a combined product offering; and (2) potential to leverage our sales force to attract new customers and revenue and cross sell to existing customers.

In-process research and development ("IPR&D") consists of two projects that have not yet reached technological feasibility. Acquired IPR&D assets are initially recognized at fair value and are classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. The value assigned to IPR&D was determined by considering the value of the products under development to the overall development plan, estimating the resulting net cash flows from the projects when completed and discounting the net cash flows to their present value. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be subject to periodic impairment testing. Upon successful completion of the development process for the acquired IPR&D projects, the assets would then be considered finite-lived intangible assets and amortization of the assets will commence. The projects have not been completed as of July 1, 2017.

We expensed $0.4 million and $17.6 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations in the three and nine months ended July 1, 2017, respectively.

The results of this acquisition were included in our consolidated operations beginning on November 7, 2016. The amount of continuing Rofin net sales and net loss from continuing operations included in our condensed consolidated statements of operations for the three months ended July 1, 2017 was approximately $116.5 million and $6.5 million, respectively. The amount of continuing Rofin net sales and net loss from continuing operations included in our condensed consolidated statements of operations for the nine months ended July 1, 2017 was approximately $301.6 million and $36.4 million, respectively.

Unaudited Pro Forma Information

The following unaudited pro forma financial information presents our combined results of operations as if the acquisition of Rofin and the related issuance of our Euro Term Loan had occurred on October 4, 2015. The unaudited pro forma financial information is not necessarily indicative of what our condensed consolidated results of operations actually would have been had the acquisition been completed on October 4, 2015. In addition, the unaudited pro forma financial information does not attempt to project the future results of operations of the combined company. The actual results may differ significantly from the pro forma results presented here due to many factors.

	Three Months Ended		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Total net sales	$ 472,027	$ 344,707	$ 1,294,841	$ 954,044
Net income (loss)	$ 64,558	$ 17,465	$ 159,260	$ (21,093)
Net income (loss) per share:				
Basic	$ 2.63	$ 0.72	$ 6.51	$ (0.87)
Diluted	$ 2.60	$ 0.71	$ 6.44	$ (0.87)

The unaudited pro forma financial information above includes the net income of Rofin’s low power CO2 laser business based in Hull, United Kingdom, which is recorded as a discontinued operation in the three and nine months ended July 1, 2017. See Note 18, "Discontinued Operations".

The unaudited pro forma financial information above reflects the following material adjustments:

- Incremental amortization and depreciation expense related to the estimated fair value of identifiable intangible assets and property, plant and equipment from the purchase price allocation.
- The exclusion of amortization of inventory step-up to its estimated fair value from the three and nine months ended July 1, 2017 and the addition of the amortization to the three and nine months ended July 2, 2016.
- The exclusion of revenue adjustments as a result of the reduction in customer deposits and deferred revenue related to its estimated fair value from the nine months ended July 1, 2017 and the addition of these adjustments to the nine months ended July 2, 2016.
- Incremental interest expense and amortization of debt issuance costs related to our Euro Term Loan and Revolving Credit Facility (as defined in Note 9, "Borrowings").
- The exclusion of acquisition costs incurred by both Coherent and Rofin from the three and nine months ended July 1, 2017 and the addition of these costs to the three and nine months ended July 2, 2016.
- The exclusion of a stock-based compensation charge related to the acceleration of Rofin options from the nine months ended July 1, 2017 and the addition of this charge to the nine months ended July 2, 2016.
- The exclusion of a gain on business combination for our previously owned shares of Rofin from the nine months ended July 1, 2017 and the addition of this gain to the nine months ended July 2, 2016.
- The exclusion of a foreign exchange gain on forward contracts related to our debt commitment and debt issuance from the nine months ended July 1, 2017 and the addition of this gain to the nine months ended July 2, 2016.
- The estimated tax impact of the above adjustments.

4. FAIR VALUES

We have not changed our valuation techniques in measuring the fair value of any financial assets and liabilities during the period. We recognize transfers between levels within the fair value hierarchy, if any, at the end of each quarter. There were no transfers between levels during the periods presented. As of July 1, 2017 and October 1, 2016, we did not have any assets or liabilities valued based on Level 3 valuations.

Financial assets and liabilities measured at fair value as of July 1, 2017 and October 1, 2016 are summarized below (in thousands):

	Aggregate Fair Value	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Aggregate Fair Value	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs
	July 1, 2017			October 1, 2016		
		(Level 1)	(Level 2)		(Level 1)	(Level 2)
Assets:						
Cash equivalents:						
Money market fund deposits	$ 83,117	$ 83,117	$ —	$ 237,142	$ 237,142	$ —
Short-term investments:						
U.S. Treasury and agency obligations [2]	120	—	120	125	—	125
Commercial paper [2]	—	—	—	24,999	—	24,999
Equity securities [1]	—	—	—	20,482	20,482	—
Prepaid and other assets:						
Foreign currency contracts [3]	2,531	—	2,531	889	—	889
Mutual funds — Deferred comp and supplemental plan [4]	17,727	17,727	—	14,399	14,399	—
Total	$ 103,495	$ 100,844	$ 2,651	$ 298,036	$ 272,023	$ 26,013
Liabilities:						
Other current liabilities:						
Foreign currency contracts [3]	(191)	—	(191)	(3,100)	—	(3,100)
Total	$ 103,304	$ 100,844	$ 2,460	$ 294,936	$ 272,023	$ 22,913

(1) Valuations are based upon quoted market prices.

(2) Valuations are based upon quoted market prices in active markets involving similar assets. The market inputs used to value these instruments generally consist of market yields, reported trades, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency. Pricing sources include industry standard data providers, security master files from large financial institutions, and other third party sources which are input into a distribution-curve-based algorithm to determine a daily market value. This creates a "consensus price" or a weighted average price for each security.

(3) The principal market in which we execute our foreign currency contracts is the institutional market in an over-the-counter environment with a relatively high level of price transparency. The market participants usually are large commercial banks. Our foreign currency contracts' valuation inputs are based on quoted prices and quoted pricing intervals from public data sources and do not involve management judgment. See Note 6, "Derivative Instruments and Hedging Activities".

(4) The fair value of mutual funds is determined based on quoted market prices. Securities traded on a national exchange are stated at the last reported sales price on the day of valuation; other securities traded in over-the-counter markets and listed securities for which no sale was reported on that date are stated as the last quoted bid price.

5. SHORT-TERM INVESTMENTS

We consider all highly liquid investments with maturities of three months or less at the time of purchase to be cash equivalents. Investments classified as available-for-sale are reported at fair value with unrealized gains and losses, net of related income taxes, recorded as a separate component of other comprehensive income ("OCI") in stockholders' equity until realized. Interest and amortization of premiums and discounts for debt securities are included in interest income. Gains and losses on securities sold are determined based on the specific identification method and are included in other income (expense).

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	July 1, 2017			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	$ 472,307	$ —	$ —	$ 472,307
Short-term investments:				
Available-for-sale securities:				
U.S. Treasury and agency obligations	$ 120	$ —	$ —	$ 120
Total short-term investments	$ 120	$ —	$ —	$ 120

	October 1, 2016			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	$ 354,347	$ —	$ —	$ 354,347
Short-term investments:				
Available-for-sale securities:				
Commercial paper	$ 24,999	$ —	$ —	$ 24,999
U.S. Treasury and agency obligations	125	—	—	125
Equity Securities	15,269	5,213	—	20,482
Total short-term investments	$ 40,393	$ 5,213	$ —	$ 45,606

None of the unrealized losses as of July 1, 2017 or October 1, 2016 were considered to be other-than-temporary impairments.

The amortized cost and estimated fair value of available-for-sale investments in debt securities as of July 1, 2017 and October 1, 2016 classified as short-term investments on our condensed consolidated balance sheet were as follows (in thousands):

	July 1, 2017		October 1, 2016	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
Investments in available-for-sale debt securities due in less than one year	$ 120	$ 120	$ 25,124	$ 25,124

During the three and nine months ended July 1, 2017, we received proceeds totaling $0.0 million and $0.1 million, respectively from the sale of available-for-sale securities and realized no gross gains or losses. During the three and nine months ended July 2, 2016, we received proceeds totaling $15.5 million and $44.1 million, respectively, from the sale of available-for-sale securities and realized gross gains of less than $0.1 million and $0.1 million, respectively.

6. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We maintain operations in various countries outside of the United States and have foreign subsidiaries that manufacture and sell our products in various global markets. The majority of our sales are transacted in U.S. dollars. However, we do generate revenues in other currencies, primarily the Euro, Japanese Yen, South Korean Won and Chinese Renminbi (RMB). As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. We attempt to limit these exposures through financial market instruments. We utilize derivative instruments, primarily forward contracts with maturities of four months or less, to manage our exposure associated with anticipated cash flows and net asset and liability positions denominated in foreign currencies. Gains and losses on the forward contracts are mitigated by gains and losses on the underlying instruments. We do not use derivative financial instruments for speculative or trading purposes. The credit risk amounts represent the Company's gross exposure to potential accounting loss on derivative instruments that are outstanding or unsettled if all counterparties failed to perform according to the terms of the contract, based on then-current currency rates at each respective date.

Non-Designated Derivatives

The outstanding notional contract and fair value asset (liability) amounts of non-designated hedge contracts, with maximum maturity of four months, are as follows (in thousands):

	U.S. Notional Contract Value		U.S. Fair Value	
	July 1, 2017	**October 1, 2016**	**July 1, 2017**	**October 1, 2016**
Euro currency hedge contracts				
Purchase	**$ 89,850**	$ 91,108	**$ 1,606**	$ 162
Sell	**$ —**	$ (750,454)	**$ —**	$ (2,234)
Japanese Yen currency hedge contracts				
Purchase	**$ —**	$ —	**$ —**	$ —
Sell	**$ (25,329)**	$ (36,450)	**$ 343**	$ (343)
South Korean Won currency hedge contracts				
Purchase	**$ —**	$ 31,248	**$ 550**	$ 413
Sell	**$ (24,675)**	$ (37,929)	**$ —**	$ (152)
Chinese RMB currency hedge contracts				
Purchase	**$ —**	$ —	**$ —**	$ —
Sell	**$ (16,193)**	$ (25,237)	**$ (185)**	$ (91)
Other foreign currency hedge contracts				
Purchase	**$ 7,629**	$ 6,033	**$ 32**	$ (4)
Sell	**$ (1,786)**	$ (1,775)	**$ (6)**	$ 38

The fair value of our derivative instruments is included in prepaid expenses and other assets and in other current liabilities in our Condensed Consolidated Balance Sheets (See Note 4).

During the three and nine months ended July 1, 2017, we recognized a gain of $5.6 million and a gain of $15.0 million, respectively, in other income (expense) for derivative instruments not designated as hedging instruments. During the three and nine months ended July 2, 2016, we recognized a loss of $4.9 million and a loss of $7.4 million, respectively, in other income (expense) for derivative instruments not designated as hedging instruments.

Designated Derivatives

Cash flow hedges related to anticipated transactions are designated and documented at the inception of the hedge when we enter into contracts for specific future transactions. Cash flow hedges are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of OCI in stockholder's equity and is reclassified into earnings when the underlying transaction affects earnings. We had no cash flow hedges outstanding at July 1, 2017 or October 1, 2016. Changes in the fair value of currency forward contracts due to changes in time value are excluded from the assessment of effectiveness and recognized in other income (expense) as incurred. We classify the cash flows from the foreign exchange forward contracts that are accounted for as cash flow hedges in the same section as the underlying item, primarily within cash flows from operating activities since we do not designate our cash flow hedges as investing or financing activities.

During the three and nine months ended July 2, 2016, we recorded losses in OCI and in other income (expense) related to the accounting for derivatives designated as cash flow hedges. These losses were not material. During the three and nine months ended July 1, 2017, we did not have any activities related to designated cash flow hedges.

Master Netting Arrangements

To mitigate credit risk in derivative transactions, we enter into master netting arrangements that allow each counterparty in the arrangements to net settle amounts of multiple and separate derivative transactions under certain conditions. We present the fair value of derivative assets and liabilities within our condensed consolidated balance sheet on a gross basis even when derivative transactions are subject to master netting arrangements and may otherwise qualify for net presentation. The impact of netting derivative assets and liabilities is not material to our financial position for any of the periods presented. Our derivative contracts do not contain any credit risk related contingent features and do not require collateral or other security to be furnished by us or the counterparties.

7. GOODWILL AND INTANGIBLE ASSETS

During the nine months ended July 1, 2017, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment. We will conduct our annual goodwill testing during the fourth fiscal quarter.

The changes in the carrying amount of goodwill by segment for the period from October 1, 2016 to July 1, 2017 are as follows (in thousands):

	OEM Laser Sources	Industrial Lasers & Systems	Total
Balance as of October 1, 2016	$ 97,015	$ 4,443	$ 101,458
Additions (see Note 3)	1,644	296,895	298,539
Translation adjustments and other	1,116	9,304	10,420
Balance as of July 1, 2017	$ 99,775	$ 310,642	$ 410,417

Components of our amortizable intangible assets are as follows (in thousands):

	July 1, 2017			October 1, 2016		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Existing technology	$ 205,124	$ (52,346)	$ 152,778	$ 70,664	$ (61,133)	$ 9,531
Patents	313	(41)	272	—	—	—
Customer relationships	50,300	(11,596)	38,704	15,968	(11,658)	4,310
Trade Name	6,001	(1,306)	4,695	384	(351)	33
In-process research & development	6,241	—	6,241	—	—	—
Total	$ 267,979	$ (65,289)	$ 202,690	$ 87,016	$ (73,142)	$ 13,874

For accounting purposes, when an intangible asset is fully amortized, it is removed from the disclosure schedule.

Amortization expense for intangible assets for the nine months ended July 1, 2017 and July 2, 2016 was $44.3 million and $6.2 million, respectively. The change in the accumulated amortization also includes $2.1 million and $0.5 million of foreign exchange impact for the nine months ended July 1, 2017 and July 2, 2016, respectively.

At July 1, 2017, estimated amortization expense for the remainder of fiscal 2017, the next five succeeding fiscal years and all fiscal years thereafter are as follows (in thousands):

	Estimated Amortization Expense
2017 (remainder)	$ 15,056
2018	56,057
2019	52,760
2020	45,574
2021	13,769
2022	3,505
Thereafter	9,728
Total (excluding IPR&D)	$ 196,449

8. BALANCE SHEET DETAILS

Inventories consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Purchased parts and assemblies	**$ 114,616**	$ 56,824
Work-in-process	**142,876**	88,391
Finished goods	**145,357**	67,683
Total inventories	**$ 402,849**	$ 212,898

Prepaid expenses and other assets consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Prepaid and refundable income taxes	**$ 32,944**	$ 12,415
Other taxes receivable	**14,850**	10,538
Prepaid expenses and other assets	**27,033**	14,120
Total prepaid expenses and other assets	**$ 74,827**	$ 37,073

Other assets consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Assets related to deferred compensation arrangements	**$ 31,167**	$ 26,356
Deferred tax assets	**78,515**	67,157
Other assets	**12,922**	9,221
Total other assets	**$ 122,604**	$ 102,734

Other current liabilities consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Accrued payroll and benefits	**$ 57,076**	$ 47,506
Deferred revenue	**78,642**	33,034
Warranty reserve	**33,983**	15,949
Accrued expenses and other	**32,540**	18,356
Current liabilities held for sale	**7,556**	—
Customer deposits	**19,845**	1,597
Total other current liabilities	**$ 229,642**	$ 116,442

Components of the reserve for warranty costs during the first nine months of fiscal 2017 and 2016 were as follows (in thousands):

	Nine Months Ended	
	July 1, 2017	July 2, 2016
Beginning balance	**$ 15,949**	$ 15,308
Additions related to current period sales	**27,854**	15,298
Warranty costs incurred in the current period	**(23,422)**	(15,059)
Accruals resulting from acquisitions	**14,314**	—
Adjustments to accruals related to foreign exchange and other	**(712)**	(396)
Ending balance	**$ 33,983**	$ 15,151

Other long-term liabilities consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Long-term taxes payable	**$ 35,295**	$ 2,951
Deferred compensation	**33,288**	28,313
Deferred tax liabilities	**55,629**	1,468
Deferred revenue	**4,544**	4,069
Asset retirement obligations liability	**5,227**	2,796
Defined benefit plan liabilities	**42,214**	8,123
Other long-term liabilities	**2,181**	1,106
Total other long-term liabilities	**$ 178,378**	$ 48,826

9. BORROWINGS

On November 4, 2016, we repaid the outstanding balance, plus accrued interest, on our former domestic line of credit and terminated the $50.0 million credit facility with Union Bank of California. We assumed two term loans having an aggregated principal amount of $15.3 million as of November 7, 2016 and several lines of credit totaling approximately $18.1 million with the completion of the Rofin acquisition.

On November 7, 2016 (the "Closing Date"), we entered into a Credit Agreement by and among us, Coherent Holding GmbH, as borrower (the “Borrower”), and certain of our direct and indirect subsidiaries from time to time party thereto, as guarantors, the lenders from time to time party thereto, Barclays Bank PLC, as administrative agent and an L/C Issuer, Bank of America, N.A., as an L/C Issuer, and MUFG Union Bank, N.A., as an L/C Issuer (the "Credit Agreement"). The Credit Agreement provides for a 670.0 million Euro senior secured term loan facility (the "Euro Term Loan") and a $100.0 million senior secured revolving credit facility ("Revolving Credit Facility") with a $30.0 million letter of credit sublimit and a $10.0 million swing line sublimit. The Borrower may increase the aggregate revolving commitments or borrow incremental term loans in an aggregate principal amount not to exceed the sum of $150.0 million and an amount that would not cause the senior secured net leverage ratio to be greater than 2.75 to 1.00, subject to certain conditions, including obtaining additional commitments from the lenders then party to the Credit Agreement or new lenders. On

November 7, 2016, the Borrower borrowed the full 670.0 million Euros under the Euro Term Loan and its proceeds were used to finance the acquisition of Rofin and pay related fees and expenses. On November 7, 2016, we also used 10.0 million Euros of the capacity under the Revolving Credit Facility for the issuance of a letter of credit.

The terms of the Credit Agreement require the Borrower to prepay the term loans in certain circumstances, including from excess cash flow beyond a threshold amount, from the receipt of proceeds from certain dispositions or from the incurrence of certain indebtedness, and from extraordinary receipts resulting in net cash proceeds in excess of $10.0 million in any fiscal year. The Borrower has the right to prepay loans under the Credit Agreement in whole or in part at any time without premium or penalty, subject to customary breakage costs. Revolving loans may be borrowed, repaid and reborrowed until the fifth anniversary of the Closing Date, at which time all outstanding revolving loans must be repaid. The Euro Term Loan matures on the seventh anniversary of the Closing Date, at which time all outstanding principal and accrued and unpaid interest on the Euro Term Loan must be repaid.

On June 30, 2017 and March 31, 2017, we made voluntary principal payments of 45.0 million Euros and 30.0 million Euros, respectively, on the Euro Term Loan. As of July 1, 2017, the outstanding principal amount of the Euro Term Loan was 590.0 million Euros. As of July 1, 2017, the outstanding principal amount of the Revolving Credit Facility was 10.0 million Euro.

Loans under the Credit Agreement bear interest, at the Borrower's option, at a rate equal to either (i)(x) in the case of calculations with respect to U.S. Dollars or certain other alternative currencies, the London interbank offered rate (the "LIBOR") or (y) in the case of calculations with respect to the Euro, the euro interbank offered rate ("EURIBOR" and, together with LIBOR, the "Eurocurrency Rate") or (ii) a base rate (the "Base Rate") equal to the highest of (x) the federal funds rate, plus 0.50%, (y) the prime rate then in effect and (z) the Eurocurrency Rate for loans denominated in U.S. dollars applicable to a one-month interest period, plus 1.0%, in each case, plus an applicable margin. The applicable margin for Euro Term Loan borrowed as Eurocurrency Rate loans, is 3.50% initially, and following the first anniversary of the Closing Date ranges from 3.50% to 3.00% depending on the consolidated total gross leverage ratio at the time of determination. For Euro Term Loan borrowed as Base Rate loans, the applicable margin initially is 2.50%, and following the first anniversary of the Closing Date ranges from 2.50% to 2.00% depending upon the consolidated total gross leverage ratio at the time of determination. The applicable margin for revolving loans borrowed as Eurocurrency Rate loans, ranges from 4.25% to 3.75%, and for revolving loans borrowed as Base Rate loans, ranges from 3.25% to 2.75%, in each case, based on the consolidated total gross leverage ratio at the time of determination. Interest on Base Rate Loans is payable quarterly in arrears. Interest on Eurocurrency Rate loans is payable at the end of the applicable interest period (or at three month intervals if the interest period exceeds three months). Interest periods for Eurocurrency Rate loans may be, at the Borrower's option, one, two, three or six months.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement to, among other things, (i) reduce the applicable interest rate margins with respect to the Euro Term Loans to 1.25% for Euro Term Loans maintained as Base Rate loans and 2.25% for Euro Term Loans maintained as Eurocurrency Rate loans, with stepdowns to 1.00% and 2.00%, respectively, available after May 8, 2018 if the consolidated total gross leverage ratio for Coherent and its restricted subsidiaries is less than 1.50:1.00 and (ii) extend the period during which a prepayment premium may be required for a repricing transaction until six months after the effective date of the Repricing Amendment. In connection with the execution of the Repricing Amendment, we paid arrangement fees of approximately $0.5 million, as well as certain fees and expenses of the administrative agent and the lenders, in accordance with the terms of the Credit Agreement.

The Credit Agreement requires the Borrower to make scheduled quarterly payments on the Euro Term Loan of 0.25% of the original principal amount of the Euro Term Loan, with any remaining principal payable at maturity. A commitment fee accrues on any unused portion of the revolving loan commitments under the Credit Agreement at a rate of 0.375% or 0.5% depending on the consolidated total gross leverage ratio at any time of determination. The Borrower is also obligated to pay other customary fees for a credit facility of this size and type.

On the Closing Date, we and certain of our direct and indirect subsidiaries, as guarantors, provided an unconditional guaranty of all obligations of the Borrower and the other loan parties arising under the Credit Agreement, the other loan documents and under swap contracts and treasury management agreements with the lenders or their affiliates (with certain limited exceptions). The Borrower and the guarantors have also granted security interests in substantially all of their assets to secure such obligations.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material respect, change in control of us and the Borrower, judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all Obligations, as defined in the Credit Agreement, and may exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. We were in compliance with all covenants at July 1, 2017.

We incurred $28.5 million of debt issuance costs related to the Euro Term Loan and $0.5 million of debt issuance costs to the original lenders related to the Repricing Amendment, which are included in short-term borrowings and current portion of long-term obligations and long-term obligations in the condensed consolidated balance sheets and will be amortized to interest expense over the seven year life of the Euro Term Loan using the effective interest method. We incurred $2.3 million of debt issuance costs in connection with the Revolving Credit Facility which were capitalized and included in prepaid expenses and other assets and other assets in the condensed consolidated balance sheets and will be amortized to interest expense using the straight-line method over the contractual term of five years of the Revolving Credit Facility.

For the three and nine months ended July 1, 2017, we recognized interest expense of $6.1 million and $18.3 million, respectively, and amortization of debt issuance costs of $1.1 million and $2.9 million, respectively, in relation to the Euro Term Loan.

Additional sources of cash available to us were international currency lines of credit and bank credit facilities totaling $28.7 million as of July 1, 2017, of which $23.0 million was unused and available. These unsecured international credit facilities were used in Europe and Japan during the first nine months of fiscal 2017. As of July 1, 2017, we had utilized $5.5 million of the international credit facilities as guarantees in Europe.

Short-term borrowings and current portion of long-term obligations consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Current portion of Euro Term Loan (1)	**$ 3,464**	$ —
1.3% Term loan due 2024	**1,428**	—
1.0% State of Connecticut term loan due 2023	**370**	—
Line of credit borrowings	**223**	20,000
Total short-term borrowings and current portion of long-term obligations	**$ 5,485**	$ 20,000

(1) Net of debt issuance costs of $4.2 million.

Long-term obligations consist of the following (in thousands):

	July 1, 2017	October 1, 2016
Euro Term Loan due 2024 (1)	**$ 641,905**	$ —
1.3% Term loan due 2024	**8,922**	—
1.0% State of Connecticut term loan due 2023	**1,873**	—
Total long-term obligations	**$ 652,700**	$ —

(1) Net of debt issuance costs of $24.2 million.

Contractual maturities of our debt obligations as of July 1, 2017 are as follows (in thousands):

		Amount
2017 (remainder)	$	2,362
2018		9,450
2019		9,450
2020		9,450
2021		9,450
2022		9,450
Thereafter		636,732
Total	$	686,344

10. STOCK-BASED COMPENSATION

Fair Value of Stock Compensation

We recognize compensation expense for all share based payment awards based on the fair value of such awards. The expense is recognized on a straight-line basis over the respective requisite service period of the awards.

Determining Fair Value

The fair values of shares purchased under the Employee Stock Purchase Plan ("ESPP") for the three and nine months ended July 1, 2017 and July 2, 2016, respectively, were estimated using the following weighted-average assumptions:

	Employee Stock Purchase Plan			
	Three Months Ended		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Expected life in years	**0.5**	0.5	**0.5**	0.5
Expected volatility	**34.5%**	38.5%	**30.8%**	31.6%
Risk-free interest rate	**0.85%**	0.37%	**0.62%**	0.28%
Expected dividend yield	**—%**	—%	**—%**	—%
Weighted average fair value per share	**$ 47.36**	$ 21.35	**$ 32.30**	$ 16.08

There were no stock options granted during the three and nine months ended July 1, 2017 and July 2, 2016.

We grant performance restricted stock units to officers and certain employees. The performance restricted stock unit agreements provide for the award of performance restricted stock units with each unit representing the right to receive one share of our common stock to be issued after the applicable award vesting period. The final number of units awarded, if any, for these performance grants will be determined as of the vesting dates, based upon our total shareholder return over the performance period compared to the Russell 2000 Index and could range from no units to a maximum of twice the initial award units. The weighted average fair value for these performance units was determined using a Monte Carlo simulation model incorporating the following weighted average assumptions:

	Nine Months Ended	
	July 1, 2017	July 2, 2016
Risk-free interest rate	**1.3%**	1.2%
Volatility	**31.0%**	27.0%
Weighted average fair value	**$163.17**	$74.48

We recognize the estimated cost of these awards, as determined under the simulation model, over the related service period of approximately 3 years, with no adjustment in future periods based upon the actual shareholder return over the performance period.

Stock Compensation Expense

The following table shows total stock-based compensation expense and related tax benefits included in the condensed consolidated statements of operations for the three and nine months ended July 1, 2017 and July 2, 2016 (in thousands):

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Cost of sales	**$ 880**	$ 677	**$ 2,618**	$ 1,876
Research and development	**639**	610	**2,289**	1,646
Selling, general and administrative	**5,373**	4,402	**18,323**	11,299
Income tax benefit	**(1,851)**	(1,588)	**(5,155)**	(3,450)
	$ 5,041	$ 4,101	**$ 18,075**	$ 11,371

As a result of our acquisition of Rofin on November 7, 2016, we made a payment of $15.3 million due to the cancellation of options held by employees of Rofin. The payment was allocated between total estimated merger consideration of $11.1 million and post-merger stock-based compensation expense of $4.2 million, recorded in the nine months ended July 1, 2017, based on the portion of the total service period of the underlying options that have not been completed by the merger date.

During the three and nine months ended July 1, 2017, $0.9 million and $2.6 million, respectively, was capitalized into inventory for all stock plans, $0.9 million and $2.4 million, respectively, was amortized to cost of sales and $1.1 million remained in inventory at July 1, 2017. During the three and nine months ended July 2, 2016, $0.7 million and $2.0 million, respectively, was capitalized into inventory for all stock plans, $0.7 million and $1.9 million, respectively, was amortized to cost of sales and $0.8 million remained in inventory at July 2, 2016.

At July 1, 2017, the total compensation cost related to unvested stock-based awards granted to employees under our stock plans but not yet recognized was approximately $38.1 million. We do not estimate forfeitures. This cost will be amortized on a straight-line basis over a weighted-average period of approximately 1.6 years and will be adjusted for subsequent changes in estimated forfeitures.

At July 1, 2017, the total compensation cost related to options to purchase common stock under the ESPP but not yet vested was approximately $1.0 million, which will be recognized over the six month offering period.

Stock Awards Activity

The following table summarizes the activity of our time-based and performance restricted stock units for the first nine months of fiscal 2017 (in thousands, except per share amounts):

	Time Based Restricted Stock Units		Performance Restricted Stock Units	
	Number of Shares	**Weighted Average Grant Date Fair Value**	**Number of Shares**	**Weighted Average Grant Date Fair Value**
Nonvested stock at October 1, 2016	459	$ 66.47	169	$ 74.10
Granted	186	131.54	115	163.17
Vested [(1)]	(228)	66.03	(104)	77.10
Forfeited	(13)	76.62	(4)	70.57
Nonvested stock at July 1, 2017	404	$ 118.60	176	$ 105.34

(1) Time-based restricted stock units vested during the fiscal year. Performance-based restricted stock units included at 100% of target goal; under the terms of the awards, the recipient may earn between 0% and 200% of the award.

11. COMMITMENTS AND CONTINGENCIES

We are subject to legal claims and litigation arising in the ordinary course of business, such as product liability, employment or intellectual property claims, including, but not limited to, the matters described below. On May 14, 2013, IMRA America ("Imra") filed a complaint for patent infringement against two of our subsidiaries in the Regional Court of Düsseldorf, Germany, captioned In re IMRA America Inc. versus Coherent Kaiserslautern GmbH et. al. 4b O 38/13. The complaint alleges that the use of certain of the Company's lasers infringes upon EP Patent No. 754,103, entitled "Method For Controlling Configuration of Laser Induced Breakdown and Ablation," issued November 5, 1997. The patent, now expired in all jurisdictions, is owned by the University of Michigan and licensed to Imra. The complaint seeks unspecified compensatory damages, the cost of court proceedings and seeks to permanently enjoin the Company from infringing the patent in the future. Following the filing of the infringement suit, our subsidiaries filed a separate nullity action with the Federal Patent Court in Munich, Germany requesting that the court hold that the Patent was invalid based on prior art. On October 1, 2015, the Federal Patent Court ruled that the German portion of the Patent was invalid. Imra has appealed this decision to the Federal Court of Justice, the highest civil jurisdiction court in Germany. The infringement action is currently stayed pending the outcome of such appeal. Management has made an accrual with respect to this matter and has determined, based on its current knowledge, that the amount or range of reasonably possible losses in excess of the amounts already accrued is not reasonably estimable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position, results of operations or cash flows, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

The United States and many foreign governments impose tariffs and duties on the import and export of certain products we sell. From time to time our duty calculations and payments are audited by government agencies. During the second quarter of fiscal 2016, we concluded an audit in South Korea for customs duties and value added tax for the period March 2009 to March 2014. We paid $1.6 million related to this matter in the second quarter of fiscal 2016 and have no remaining accrual at October 1, 2016.

On November 7, 2016, we entered into a Credit Agreement, which was amended on May 8, 2017. See Note 9 "Borrowings" for further discussion of the issuance of the financing.

12. EARNINGS PER SHARE

Basic earnings per share is computed based on the weighted average number of shares outstanding during the period, excluding unvested restricted stock. Diluted earnings per share is computed based on the weighted average number of shares outstanding during the period increased by the effect of dilutive employee stock awards, including stock options, restricted stock awards and stock purchase plan contracts, using the treasury stock method.

The following table presents information necessary to calculate basic and diluted earnings per share (in thousands, except per share data):

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Weighted average shares outstanding —basic	**24,537**	24,192	**24,460**	24,108
Dilutive effect of employee stock awards	**286**	275	**281**	247
Weighted average shares outstanding—diluted	**24,823**	24,467	**24,741**	24,355
Net income from continuing operations	**$ 62,871**	$ 18,650	**135,757**	$ 56,717
Loss from discontinued operations, net of income taxes	**(1,754)**	—	**(2,387)**	—
Net income	**$ 61,117**	$ 18,650	**$ 133,370**	$ 56,717

A total of 0 and 214 potentially dilutive securities have been excluded from the diluted share calculation for the three months ended July 1, 2017 and July 2, 2016, respectively, as their effect was anti-dilutive.

A total of 0 and 71 potentially dilutive securities have been excluded from the diluted share calculation for the nine months ended July 1, 2017 and July 2, 2016, respectively, as their effect was anti-dilutive.

13. OTHER INCOME (EXPENSE)

Other income (expense) is as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Foreign exchange gain (loss)	**$ (2,439)**	$ (1,261)	**$ 7,928**	$ (2,781)
Gain on deferred compensation investments, net	**1,136**	1,796	**2,831**	795
Other	**573**	29	**112**	90
Other - net	**$ (730)**	$ 564	**$ 10,871**	$ (1,896)

14. INCOME TAXES

Income tax expense includes a provision for federal, state and foreign taxes based on the annual estimated effective tax rate applicable to us and our subsidiaries, adjusted for items which are considered discrete to the period. Our effective tax rates for the three and nine months ended July 1, 2017 were 32.1% and 32.4%, respectively. Our effective tax rates for three and nine months ended July 1, 2017 were lower than the statutory rate of 35% primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and the benefit of federal research and development tax credits. These amounts are partially offset by Rofin transaction costs not deductible for tax purposes, tax costs of Rofin restructuring, ASC 740-10 (formerly FIN48) tax liabilities for transfer pricing, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

The effective tax rate on income before income taxes for the third quarter of fiscal 2016 of 31.3% and the effective tax rate on income before income taxes for the first nine months of fiscal 2016 of 27.7% were lower than the statutory rate of 35.0% primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and the benefit of federal research and development tax credits including renewal of the federal research and development tax credits for fiscal 2015. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules including an intercompany loan from Coherent Korea that will likely be repaid in fiscal 2017, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

Determining the consolidated provision for income taxes, income tax liabilities and deferred tax assets and liabilities involves judgment. We calculate and provide for income taxes in each of the tax jurisdictions in which we operate, which involves estimating current tax exposures as well as making judgments regarding the recoverability of deferred tax assets in each jurisdiction. The estimates used could differ from actual results, which may have a significant impact on operating results in future periods.

We had U.S. federal deferred tax assets related to research and development credits, foreign tax credits and other tax attributes that can be used to offset federal taxable income in future periods. These credit carryforwards will expire if they are not used within certain time periods. As of July 1, 2017, management determined that there is sufficient positive evidence to conclude that it is more likely than not sufficient taxable income will exist in the future allowing us to recognize these deferred tax assets. It is possible that some or all these attributes could ultimately expire unused. If facts and circumstances change in the future, management may determine at that time a valuation allowance is necessary. A valuation allowance would materially increase our tax expense in the period applied and would adversely affect our results of operations and statement of financial condition. Changes in our underlying facts or circumstances, such as the impact of the Rofin acquisition, will be continually assessed and we will re-evaluate its position accordingly.

We are subject to taxation and file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. For U.S. federal income tax purposes, all years prior to 2011 are closed. We agreed to extend the statutes of limitations for our fiscal 2011 and 2012 U.S. federal tax returns to June 30, 2018 due to an ongoing Advanced Pricing Agreement (“APA”) between the U.S. and South Korea. The rollback period of this APA has been resolved favorably by the tax authorities in South Korea and the U.S. through a Mutual Agreement Procedure based on recent correspondence. In March 2016, the Internal Revenue Service (IRS) issued an audit notice and Information Documentation Requests (IDRs) for fiscal 2013. The audit is currently in progress and the statute of limitation was extended to June 30, 2018. In our major foreign jurisdictions and our major state jurisdictions, the years prior to 2011 and 2012, respectively, are closed to examination. Earlier years in our various jurisdictions may remain open for adjustment to the extent that we have tax attribute carryforwards from those years. In July 2015 and March 2016, Coherent Kaiserslautern GmbH (formerly Lumera Laser GmbH) received tax audit notices for the fiscal years 2010 to 2014. The audit began in August 2015. We acquired the shares of Lumera Laser GmbH in December 2012 and, pursuant to the terms of the acquisition agreement, we should not have responsibility for any assessments related to the pre-acquisition period. In July, 2016, Coherent Holding GmbH and Coherent Deutschland GmbH each received a tax audit notice for the fiscal years 2011 to 2014. The audit began August 2016. In November 2016, Coherent GmbH, Coherent LaserSystems GmbH & Co. KG and Coherent Germany GmbH received audit notices for the period that they were in existence during the fiscal years 2011 through 2014. The audit work began in January 2017.

We regularly engage in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions and management believes that it has adequately provided reserves for any adjustments that may result from tax examinations.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits for the nine months ended July 1, 2017 (amounts in thousands):

	Nine Months Ended July 1, 2017
Balance as of the beginning of the year	**$ 20,442**
Increase related to acquisitions	**26,407**
Tax positions related to current year:	
Additions	**1,678**
Reductions	**(87)**
Tax positions related to prior year:	
Additions	**3,018**
Reductions	**—**
Settlements	**—**
Lapses in statutes of limitations	**—**
Foreign currency revaluation adjustment	**1,025**
Balance as of end of period	**$ 52,483**

As of July 1, 2017, the total amount of gross interest and penalties accrued was approximately $2.0 million, mostly due to the Rofin acquisition, and it is classified as long-term taxes payable in the consolidated balance sheet.

15. DEFINED BENEFIT PLANS

As a result of the Rofin acquisition, we have assumed all assets and liabilities of Rofin’s defined benefit plans for the Rofin-Sinar Laser, GmbH ("RSL") and Rofin-Sinar Inc. ("RS Inc.") employees. The U.S. plan began in fiscal year 1995 and is funded. Any new employees hired after January 1, 2007, are not eligible for the RS Inc. pension plan. As is the customary practice with German companies, the German pension plan is unfunded. Any new employees hired after the acquisition of Rofin-Baasel Lasertechnik in 2000 are not eligible for the RSL pension plan. The measurement date of these pension plans is September 30.

Effective January 1, 2012, the RS Inc. defined benefit plan was amended to exclude highly compensated employees, as defined by the Internal Revenue Service, from receiving future years of service under the RS Inc. defined benefit plan. A non-qualified defined benefit plan was created to replace the benefits lost by the employees that were otherwise excluded from the qualified defined benefit plan.

In addition, we have defined benefit plans in Coherent Korea, Coherent Japan, and Coherent Italy, covering all full-time employees with at least one year of service, and a defined benefit plan in Coherent Germany covering two individuals. As is the customary practice with European and Asian companies, the plans are unfunded. We have elected to recognize all actuarial gains and losses on these plans immediately, as incurred. The measurement date of these defined benefit plans is September 30.

For financial reporting purposes, the calculation of net periodic pension costs is based upon a number of actuarial assumptions including a discount rate for plan obligations, an assumed rate of return on pension assets and an assumed rate of compensation increase for employees covered by the plan. All of these assumptions were based upon management's judgment, considering all known trends and uncertainties. Actual results that differ from these assumptions would impact future expense recognition and the cash funding requirements of our defined benefit plans.

Components of net periodic cost were as follows for the three and nine months ended July 1, 2017 and July 2, 2016:

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Service cost	**$ 566**	$ 134	**$ 1,409**	$ 425
Interest cost	**279**	15	**729**	50
Expected return on plan assets	**(184)**	—	**(490)**	—
Amortization of prior service cost	**19**	—	**50**	—
Amortization of prior net loss	**139**	—	**370**	—
Recognized net actuarial loss	**387**	122	**845**	410
Net periodic pension cost	**$ 1,206**	$ 271	**$ 2,913**	$ 885

16. SEGMENT INFORMATION

As a result of the acquisition of Rofin in the first quarter of fiscal 2017, we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company based upon the organizational structure of the combined company and how the chief operating decision maker ("CODM") receives and utilizes information provided to allocate resources and make decisions: OEM Laser Sources (“OLS”) and Industrial Lasers & Systems (“ILS”). Accordingly, our segment information was restated retroactively in the first quarter of fiscal 2017. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment.

We have identified OLS and ILS as operating segments for which discrete financial information is available. Both units have dedicated engineering, manufacturing, product business management and product line management functions. A small portion of our outside revenue is attributable to projects and recently developed products for which a segment has not yet been determined. The associated direct and indirect costs are presented in the category of Corporate and other, along with other corporate costs as described below.

Our Chief Executive Officer has been identified as the CODM as he assesses the performance of the segments and decides how to allocate resources to the segments. Income from operations is the measure of profit and loss that our CODM uses to assess performance and make decisions. As assets are not a measure used to assess the performance of the company by the CODM, asset information is not tracked or compiled by segment and is not available to be reported in our disclosures. Income from operations represents the net sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating expenses which we manage separately at the corporate level. These unallocated costs include stock-based compensation and corporate functions (certain research and development, management, finance, legal and human resources) and are included in the results below under Corporate and other in the reconciliation of operating results. Management does not consider unallocated Corporate and other costs in its measurement of segment performance.

The following table provides net sales and income from continuing operations for our operating segments and a reconciliation of our total income from continuing operations to income from continuing operations before income taxes (in thousands):

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Net sales:				
OEM Laser Sources	**$ 309,925**	$ 183,544	**$ 825,805**	$ 509,416
Industrial Lasers & Systems	**154,182**	35,223	**407,208**	99,508
Total net sales	**$ 464,107**	$ 218,767	**$ 1,233,013**	$ 608,924
Income (loss) from continuing operations:				
OEM Laser Sources	**$ 120,586**	$ 47,989	**$ 307,046**	$ 131,652
Industrial Lasers & Systems	**(1,493)**	(4,459)	**(29,571)**	(11,293)
Corporate and other	**(18,516)**	(17,242)	**(63,609)**	(40,784)
Total income from continuing operations	**100,577**	26,288	**213,866**	79,575
Total other income (expense), net	**(7,942)**	852	**(13,025)**	(1,150)
Income from continuing operations before income taxes	**$ 92,635**	$ 27,140	**$ 200,841**	$ 78,425

Major Customers

We had one customer during the three and nine months ended July 1, 2017 that accounted for 28.2% and 25.3%, respectively, of net sales. The same customer accounted for 11.3% and 10.6% of net sales for the three and nine months ended July 2, 2016, respectively. We had another customer during the three and nine months ended July 2, 2016 that accounted for 15.8% and 16.8%, respectively, of net sales. The customers purchased primarily from our OLS segment.

We had one customer that accounted for 21.6% and 18.0% of accounts receivable at July 1, 2017 and October 1, 2016, respectively. We had another customer that accounted for 18.7% of accounts receivable at October 1, 2016. The customers purchased primarily from our OLS segment.

17. RESTRUCTURING CHARGES

In the first quarter of fiscal 2017, we began the implementation of planned restructuring activities in connection with the acquisition of Rofin. These activities primarily relate to the exit from our high power fiber laser product line, change of control payments to Rofin officers, re-grouping of our production lines due to segment reorganization and consolidation of sales and distribution offices, resulting in charges primarily for employee termination, early lease termination and other exit related costs associated with the write-off of property and equipment and inventory.

The following table presents our current liability as accrued on our balance sheets for restructuring charges. The table sets forth an analysis of the components of the restructuring charges and payments and other deductions made against the accrual for the first nine months of fiscal 2017 (in thousands):

	Severance Related	Asset Write Offs	Other	Total
Balances, October 1, 2016	$ —	$ —	—	$ —
Provision	2,703	4,359	—	7,062
Payments and other	(344)	(4,359)	—	(4,703)
Balances, December 31, 2016	2,359	—	—	2,359
Provision	319	(45)	283	557
Payments and other	(892)	45	(104)	(951)
Balances, April 1, 2017	1,786	—	179	1,965
Provision	1,115	82	303	1,500
Payments and other	(1,793)	(82)	(130)	(2,005)
Balances, July 1, 2017	$ 1,108	$ —	$ 352	$ 1,460

The current year severance related costs are primarily comprised of severance pay for employees being terminated due to the transition of activities out of Rofin and the consolidation of sales and distribution offices. At July 1, 2017, $1.5 million of accrued restructuring costs were included in other current liabilities. By segment, $1.5 million and $8.6 million of restructuring costs were incurred in the ILS segment and $0.0 million and $0.5 million were incurred in the OLS segment in the three and nine months ended July 1, 2017, respectively. Restructuring charges are recorded in cost of sales, research and development and selling, general and administrative expenses in our condensed consolidated statements of operations.

18. DISCONTINUED OPERATIONS

Discontinued Operations and Assets Held for Sale

Discontinued operations are comprised of Rofin's low power CO2 laser business based in Hull, United Kingdom (the "Hull Business"), that we acquired as part of our acquisition of Rofin. As a condition of the acquisition, we are required to divest ourselves of the Hull Business and will report this business separately as a discontinued operation until it is divested. In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business and submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. The European Commission has not yet determined whether it will approve or decline our proposed purchaser and the terms of such divestiture.

For financial statement purposes, the results of operations for this discontinued business have been segregated from those of the continuing operations and are presented in our condensed consolidated financial statements as discontinued operations and the net assets of the remaining discontinued business have been presented as current assets and current liabilities held for sale.

The results of discontinued operations for the three and nine months ended July 1, 2017 are as follows (in thousands):

	Three Months Ended July 1, 2017	Nine Months Ended July 1, 2017
Net sales	$ 7,920	$ 20,296
Cost of sales	5,349	14,337
Operating expenses	2,771	6,924
Impairment loss	1,249	1,249
Other expense	5	173
Income tax expense	300	—
Net loss from discontinued operations	$ (1,754)	$ (2,387)

In the third quarter of fiscal 2017, we re-evaluated the carrying value of the Hull Business that has been presented as assets held for sale since the acquisition. Approximately $33.9 million of goodwill was reallocated from the assets held for sale to the remaining business acquired as we are within the remeasurement period. In addition, we recorded a $1.2 million impairment charge on the remaining net assets to write them down to reflect our best estimate of fair value less costs to sell using all information available at that time and included the net loss in discontinued operations. Current assets and current liabilities classified as held for sale as of July 1, 2017 related to discontinued operations are as follows (in thousands):

Accounts receivable	$	6,936
Inventories		4,991
Prepaid expenses and other assets		383
Property and equipment		10,475
Intangible assets		9,771
Total current assets held for sale	$	32,556
Accounts payable	$	1,973
Other current liabilities		5,583
Total current liabilities held for sale	$	7,556

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

COMPANY OVERVIEW

BUSINESS BACKGROUND

We are one of the world's leading providers of lasers, laser-based technologies and laser-based system solutions in a broad range of commercial, industrial and scientific applications. We design, manufacture, service and market lasers and related accessories for a diverse group of customers. Since inception in 1966, we have grown through internal expansion and through strategic acquisitions of complementary businesses, technologies, intellectual property, manufacturing processes and product offerings.

As a result of the acquisition of Rofin in the first quarter of fiscal 2017 (see discussion below), we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company: OEM Laser Sources ("OLS") and Industrial Lasers & Systems ("ILS"). This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment is focused on high performance laser sources and complex optical sub-systems typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing.

Income from operations is the measure of profit and loss that our chief operating decision maker ("CODM") uses to assess performance and make decisions. Income from operations represents the sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating expenses, which we manage separately at the corporate level. These unallocated costs include stock-based compensation and corporate functions (certain advanced research and development, management, finance, legal and human resources) and are included in Corporate and other. Management does not consider unallocated Corporate and other costs in its measurement of segment performance.

MARKET APPLICATIONS

Our products address a broad range of applications that we group into the following markets: Microelectronics, Materials Processing, OEM Components and Instrumentation and Scientific Research in academia and government.

OUR STRATEGY

We strive to develop innovative and proprietary products and solutions that meet the needs of our customers and that are based on our core expertise in lasers and optical technologies. In pursuit of our strategy, we intend to:

- **Leverage our technology portfolio and application engineering to lead the proliferation of photonics into broader markets**—We will continue to identify opportunities in which our technology portfolio and application engineering can be used to offer innovative solutions and gain access to new markets. We plan to utilize our expertise to increase our market share in the mid to high power material processing applications.

- **Streamline our manufacturing structure and improve our cost structure**—We will focus on optimizing the mix of products that we manufacture internally and externally. We will utilize vertical integration where our internal manufacturing process is considered proprietary and seek to leverage external sources when the capabilities and cost structure are well developed and on a path towards commoditization.

- **Focus on long-term improvement of adjusted EBITDA, in dollars and as a percentage of net sales**—We define adjusted EBITDA as operating income adjusted for depreciation, amortization, stock compensation expenses, major restructuring costs and certain other non-operating income and expense items. Key initiatives to reach our goals for EBITDA improvements include utilization of our Asian manufacturing locations, rationalizing our supply chain and continued leveraging of our infrastructure.

- **Optimize our leadership position in existing markets**—There are a number of markets where we have historically been at the forefront of technological development and product deployment and from which we have derived a substantial portion of our revenues. We plan to optimize our financial returns from these markets.

- **Maintain and develop additional strong collaborative customer and industry relationships**—We believe that the Coherent brand name and reputation for product quality, technical performance and customer satisfaction will help us to further develop our loyal customer base. We plan to maintain our current customer relationships and develop new ones with customers who are industry leaders and work together with these customers to design and develop innovative product systems and solutions as they develop new technologies.

- **Develop and acquire new technologies and market share**—We will continue to enhance our market position through our existing technologies and develop new technologies through our internal research and development efforts, as well as through the acquisition of additional complementary technologies, intellectual property, manufacturing processes and product offerings.

APPLICATION OF CRITICAL ACCOUNTING POLICIES

Our discussion and analysis of financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America and pursuant to the rules and regulations of the SEC. The preparation of these condensed consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. We have identified the following as the items that require the most significant judgment and often involve complex estimation: revenue recognition, business combinations, accounting for long-lived assets (including goodwill and intangible assets), inventory valuation, warranty reserves, stock-based compensation and accounting for income taxes. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for our fiscal year ended October 1, 2016.

Starting in the three months ended December 31, 2016, we assessed business combinations to be one of our critical accounting policies. We include the results of operations of the businesses that we acquire as of the respective dates of acquisition. We allocate the fair value of the purchase price of our business acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities is recorded as goodwill. Additional information existing as of the acquisition date, but unknown to us at that time, may become known during the remainder of the measurement period, not to exceed 12 months from the acquisition date, which may result in changes to the amounts and allocations recorded.

KEY PERFORMANCE INDICATORS

Below is a summary of some of the quantitative performance indicators (as defined below) that are evaluated by management to assess our financial performance. Some of the indicators are non-GAAP measures and should not be considered as an alternative to any other measure for determining operating performance or liquidity that is calculated in accordance with generally accepted accounting principles. As previously announced during our first quarter earnings call held on February 7, 2017, management has determined that we will no longer present non-GAAP bookings data effective in the second quarter of fiscal 2017. We had been one of the few companies in the industry that has provided bookings information, which we believe puts us at a competitive disadvantage. In addition, our bookings volatility has and will continue to be high by virtue of the excimer laser annealing ("ELA") business where high average selling prices can cause large swings in bookings; these swings are not indicative of the long-term potential of the business. We believe this change will put more focus on our key performance metrics discussed below. Accordingly, beginning with our Quarterly Report on Form 10-Q for the second quarter of fiscal 2017, we are no longer providing bookings, book-to-bill ratio and related disclosure in our MD&A.

	Three Months Ended			
	July 1, 2017	July 2, 2016	Change	% Change
	(Dollars in thousands)			
Net sales—OEM Laser Sources	**$ 309,925**	$ 183,544	$ 126,381	68.9 %
Net sales—Industrial Lasers & Systems	**$ 154,182**	$ 35,223	$ 118,959	337.7 %
Gross profit as a percentage of net sales—OEM Laser Sources	**53.8%**	47.6%	6.2 %	13.0 %
Gross profit as a percentage of net sales—Industrial Lasers & Systems	**26.9%**	22.4%	4.5 %	20.1 %
Research and development as a percentage of net sales	**6.6%**	9.8%	(3.2)%	(32.7)%
Income from continuing operations before income taxes	**$ 92,635**	$ 27,140	$ 65,495	241.3 %
Net cash provided by operating activities	**$ 90,923**	$ 9,067	$ 81,856	902.8 %
Days sales outstanding in receivables	**53.9**	61.8	(7.9)	(12.8)%
Annualized third quarter inventory turns	**2.6**	2.5	0.1	4.0 %
Capital spending as a percentage of net sales	**3.4%**	5.5%	(2.1)%	(38.2)%
Net income from continuing operations as a percentage of net sales	**13.6%**	8.5%	5.1 %	60.0 %
Adjusted EBITDA as a percentage of net sales	**30.6%**	20.8%	9.8 %	47.1 %

	Nine Months Ended			
	July 1, 2017	July 2, 2016	Change	% Change
	(Dollars in thousands)			
Net sales—OEM Laser Sources	**$ 825,805**	$ 509,416	$ 316,389	62.1 %
Net sales—Industrial Lasers & Systems	**$ 407,208**	$ 99,508	$ 307,700	309.2 %
Gross profit as a percentage of net sales—OEM Laser Sources	**53.3%**	47.8%	5.5 %	11.5 %
Gross profit as a percentage of net sales—Industrial Lasers & Systems	**22.3%**	25.6%	(3.3)%	(12.9)%
Research and development as a percentage of net sales	**7.1%**	10.1%	(3.0)%	(29.7)%
Income from continuing operations before income taxes	**$ 200,841**	$ 78,425	$ 122,416	156.1 %
Net cash provided by operating activities	**$ 285,282**	$ 54,621	$ 230,661	422.3 %
Capital spending as a percentage of net sales	**3.7%**	4.6%	(0.9)%	(19.6)%
Net income from continuing operations as a percentage of net sales	**11.0%**	9.3%	1.7 %	18.3 %
Adjusted EBITDA as a percentage of net sales	**29.5%**	21.0%	8.5 %	40.5 %

Net Sales

Net sales include sales of lasers, laser tools, related accessories and service. Net sales for the third quarter of fiscal 2017 increased 68.9% in our OLS segment and increased 337.7% in our ILS segment from the same quarter one year ago. Net sales for the first nine months of fiscal 2017 increased 62.1% in our OLS segment and increased 309.2% in our ILS segment from the same period one year ago. For both periods, the majority of the increase in the ILS segment was due to Rofin net sales since the acquisition on November 7, 2016. For a description of the reasons for changes in net sales refer to the "Results of Operations" section of this quarterly report.

Gross Profit as a Percentage of Net Sales

Gross profit as a percentage of net sales ("gross profit percentage") is calculated as gross profit for the period divided by net sales for the period. Gross profit percentage in the third quarter increased to 53.8% from 47.6% in our OLS segment and increased to 26.9% from 22.4% in our ILS segment from the same quarter one year ago. Gross profit percentage in the first nine months increased to 53.3% from 47.8% in our OLS segment and decreased to 22.3% from 25.6% in our ILS segment from the same period one year ago. For a description of the reasons for changes in gross profit refer to the "Results of Operations" section of this quarterly report.

Research and Development as a Percentage of Net Sales

Research and development as a percentage of net sales ("R&D percentage") is calculated as research and development expense for the period divided by net sales for the period. Management considers R&D percentage to be an important indicator in managing our business as investing in new technologies is a key to future growth. R&D percentage decreased to 6.6% from 9.8% in our third fiscal quarter and decreased to 7.1% from 10.1% for the first nine months of fiscal 2017 compared to the same periods one year ago. For a description of the reasons for changes in R&D spending refer to the "Results of Operations" section of this quarterly report.

Net Cash Provided by Operating Activities

Net cash provided by operating activities as reflected on our Condensed Consolidated Statements of Cash Flows primarily represents the excess of cash collected from billings to our customers and other receipts over cash paid to our vendors for expenses and inventory purchases to run our business. We believe that cash flows from operations is an important performance indicator because cash generation over the long term is essential to maintaining a healthy business and providing funds to help fuel growth. For a description of the reasons for changes in net cash provided by operating activities refer to the "Liquidity and Capital Resources" section of this quarterly report.

Days Sales Outstanding in Receivables

We calculate days sales outstanding ("DSO") in receivables as net receivables at the end of the period divided by net sales during the period and then multiplied by the number of days in the period, using 90 days for quarters. DSO in receivables indicates how well we are managing our collection of receivables, with lower DSO in receivables resulting in higher working capital availability. The more money we have tied up in receivables, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our DSO in receivables for the third quarter of fiscal 2017 decreased to 53.9 days from 61.8 days compared to the same quarter one year ago primarily due to higher sales of ELA tools used in the flat panel display market in Asia and the timing of collections of those receivables, a lower concentration of sales in the last month of the quarter, lower sales and receivables in Japan which typically has a higher DSO and improved collections of older receivables in the U.S. and Europe partially offset by the impact of our acquisition of Rofin, which has historically had higher DSOs than those previously reported by us.

Annualized Third Quarter Inventory Turns

We calculate annualized third quarter inventory turns as the cost of sales during the third quarter annualized and divided by net inventories at the end of the third quarter. This indicates how well we are managing our inventory levels, with higher inventory turns resulting in more working capital availability and a higher return on our investments in inventory. The more money we have tied up in inventory, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our annualized inventory turns for the third quarter of fiscal 2017 increased to 2.6 from 2.5 turns compared to the same quarter a year ago. Improvements in the turns due to higher shipments of large ELA tools used in the flat panel display market were partially offset by the impact of our acquisition of Rofin in the first quarter of fiscal 2017 due to Rofin's historically lower inventory turns rate.

Capital Spending as a Percentage of Net Sales

Capital spending as a percentage of net sales ("capital spending percentage") is calculated as capital expenditures for the period divided by net sales for the period. Capital spending percentage indicates the extent to which we are expanding or improving our operations, including investments in technology and equipment. Management monitors capital spending levels as this assists us in measuring our cash flows, net of capital expenditures. Our capital spending percentage decreased to 3.4% for the third quarter of fiscal 2017 from 5.5% for the third quarter of fiscal 2016, and decreased to 3.7% for the first nine months of fiscal 2017 from 4.6% for the first nine months of fiscal 2016, primarily due to the impact of higher revenues in the third quarter and first nine months of fiscal 2017 partially offset by investments to expand our manufacturing capacity in Göttingen, Germany, our acquisition of Rofin in the first quarter of fiscal 2017, the upgrade of certain of our production facilities in

California and higher purchases of production-related assets. We expect our spending on expansion of our manufacturing facilities to increase in the fourth quarter of fiscal 2017.

Adjusted EBITDA as a Percentage of Net Sales

We define adjusted EBITDA as operating income adjusted for depreciation, amortization, stock compensation expenses, major restructuring costs and certain other non-operating income and expense items, such as costs related to our acquisition of Rofin. Key initiatives to reach our goals for EBITDA improvements include utilization of our Asian manufacturing locations, rationalizing our supply chain and continued leveraging of our infrastructure.

We utilize a number of different financial measures, both GAAP and non-GAAP, such as adjusted EBITDA as a percentage of net sales, in analyzing and assessing our overall business performance, for making operating decisions and for forecasting and planning future periods. We consider the use of non-GAAP financial measures helpful in assessing our current financial performance and ongoing operations. While we use non-GAAP financial measures as a tool to enhance our understanding of certain aspects of our financial performance, we do not consider these measures to be a substitute for, or superior to, the information provided by GAAP financial measures. We provide adjusted EBITDA in order to enhance investors' understanding of our ongoing operations. This measure is used by some investors when assessing our performance.

Below is the reconciliation of our net income from continuing operations as a percentage of net sales to our adjusted EBITDA as a percentage of net sales:

	Three Months Ended		Nine Months Ended	
	July 1, 2017	**July 2, 2016**	**July 1, 2017**	**July 2, 2016**
Net income from continuing operations as a percentage of net sales	**13.5%**	8.5%	**11.0 %**	9.3%
Income tax expense	**6.4%**	3.9%	**5.3 %**	3.6%
Interest and other income (expense), net	**2.0%**	0.5%	**1.3 %**	0.4%
Depreciation and amortization	**5.8%**	3.9%	**6.1 %**	4.2%
Restructuring charges	**0.3%**	—%	**0.7 %**	—%
Purchase accounting step-up	**1.0%**	—%	**2.2 %**	—%
Gain on business combination	**—%**	—%	**(0.4)%**	—%
Costs related to acquisition of Rofin	**0.1%**	1.4%	**1.4 %**	1.1%
Stock-based compensation	**1.5%**	2.6%	**1.9 %**	2.4%
Adjusted EBITDA as a percentage of net sales	**30.6%**	20.8%	**29.5 %**	21.0%

SIGNIFICANT EVENTS

Acquisition and related financing

On November 7, 2016, we completed our acquisition of Rofin pursuant to the Merger Agreement dated March 16, 2016. Rofin is one of the world's leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components. The acquisition was an all-cash transaction at a price of $32.50 per share of Rofin common stock. The aggregate consideration paid by us to the former Rofin stockholders was approximately $904.5 million, excluding related transaction fees and expenses. We also paid $15.3 million due to the cancellation of options held by employees of Rofin. We funded the payment of the aggregate consideration with a combination of our available cash on hand and the proceeds from the Euro Term Loan described below. As a condition of the acquisition, we are required to divest ourselves of Rofin's low power CO2 laser business based in Hull, United Kingdom (the "Hull Business"), and will report this business separately as a discontinued operation until it is divested. In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business and submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. The European Commission has not yet determined whether it will approve or decline our proposed purchaser and the terms of such divestiture. See Note 3. "Business Combinations" in the Notes to Condensed Consolidated Financial Statements.

On November 7, 2016, we entered into a Credit Agreement (the "Credit Agreement") with Barclays Bank PLC ("Barclays"), Bank of America, N.A. ("BAML") and MUFG Union Bank, N.A. ("MUFG"). The Credit Agreement provided for a 670.0

million Euro senior secured term loan facility (the “Euro Term Loan”) and a $100.0 million senior secured revolving credit facility. On November 7, 2016, the Euro Term Loan was drawn in full and its proceeds were used to finance our acquisition of Rofin and pay related fees and expenses. Also, on November 7, 2016, we used 10.0 million Euros of the capacity under the revolving credit facility for the issuance of a letter of credit.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement. See Note 9. “Borrowings” in the Notes to Condensed Consolidated Financial Statements.

In relation to our acquisition of Rofin, we paid Barclays, our financial advisor, a fee of approximately $9.5 million, $1.0 million of which was paid upon delivery of the fairness opinion in the second quarter of fiscal 2016, and the remaining portion of which was paid upon consummation of the acquisition in the first quarter of fiscal 2017; these fees were recorded in selling, general and administrative expense in our consolidated statements of operations. We also paid Barclays, BAML and MUFG together approximately $17.0 million and $5.6 million for underwriting and upfront fees, respectively, upon the close of the financing on November 7, 2016; these fees are recorded as debt issuance costs on our consolidated balance sheets.

As a result of our acquisition of Rofin in the first quarter of fiscal 2017, we reorganized into two new reporting segments for the combined company based upon our organizational structure and how our Chief Operating Decision Maker receives and utilizes information provided to allocate resources and make decisions: OLS and ILS. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment, is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing.

RESULTS OF OPERATIONS

CONSOLIDATED SUMMARY

The following table sets forth, for the periods indicated, the percentage of total net sales represented by the line items reflected in our condensed consolidated statements of operations:

	Three Months Ended		Nine Months Ended	
	July 1, 2017	July 2, 2016	July 1, 2017	July 2, 2016
Net sales	**100.0 %**	100.0%	**100.0 %**	100.0 %
Cost of sales	**55.4 %**	56.8%	**57.2 %**	56.1 %
Gross profit	**44.6 %**	43.2%	**42.8 %**	43.9 %
Operating expenses:				
Research and development	**6.6 %**	9.8%	**7.1 %**	10.1 %
Selling, general and administrative	**15.6 %**	21.1%	**17.7 %**	20.4 %
Gain on business combination	**— %**	—%	**(0.4)%**	— %
Amortization of intangible assets	**0.8 %**	0.3%	**1.1 %**	0.3 %
Total operating expenses	**23.0 %**	31.2%	**25.5 %**	30.8 %
Income from operations	**21.6 %**	12.0%	**17.3 %**	13.1 %
Other income (expense), net	**(1.6)%**	0.4%	**(1.0)%**	(0.2)%
Income from continuing operations before income taxes	**20.0 %**	12.4%	**16.3 %**	12.9 %
Provision for income taxes	**6.4 %**	3.9%	**5.3 %**	3.6 %
Net income from continuing operations	**13.6 %**	8.5%	**11.0 %**	9.3 %

Net income from continuing operations for the third quarter of fiscal 2017 was $62.9 million ($2.53 per diluted share) including $10.9 million after-tax amortization of intangible assets, $5.0 million of after-tax stock-based compensation expense, $3.2 million after-tax amortization of purchase accounting inventory step-up, $1.1 million of after-tax restructuring costs and $0.3 million of after tax costs related to our acquisition of Rofin. Net income from continuing operations for the third quarter of fiscal 2016 was $18.7 million ($0.76 per diluted share) including $4.1 million of after-tax stock-based compensation expense,

$1.4 million after-tax amortization of intangible assets and $2.0 million of after tax costs related to our acquisition of Rofin. Net income from continuing operations for the first nine months of fiscal 2017 was $135.8 million ($5.49 per diluted share) including $31.2 million after-tax amortization of intangible assets, $19.0 million after-tax amortization of purchase accounting inventory step-up, $18.1 million of after-tax stock-based compensation expense, $17.4 million of after tax costs related to our acquisition of Rofin, $6.1 million of after-tax restructuring costs, $1.8 million after-tax interest expense on the commitment of our term loan to finance our acquisition of Rofin, a $3.4 million after-tax gain on our sale of owned Rofin shares and $7.1 million after-tax foreign exchange gain on forward contracts associated with our foreign exchange risk related to the commitment of our Euro Term Loan and the issuance of the Euro Term Loan to finance our acquisition of Rofin. Net income from continuing operations for the first nine months of fiscal 2016 was $56.7 million ($2.33 per diluted share) including $11.4 million of after-tax stock-based compensation expense, $4.3 million after-tax amortization of intangible assets, $4.3 million of after-tax costs related to our acquisition of Rofin and a benefit of $1.2 million related to the renewal of the federal research and development tax credits for fiscal 2015.

NET SALES

Market Application

The following tables set forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by market application (dollars in thousands):

	Three Months Ended			
	July 1, 2017		July 2, 2016	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales
Consolidated:				
Microelectronics	**$ 241,842**	**52.1%**	$ 116,473	53.2%
OEM components and instrumentation	**50,061**	**10.8%**	37,892	17.3%
Materials processing	**142,614**	**30.7%**	36,506	16.7%
Scientific and government programs	**29,590**	**6.4%**	27,896	12.8%
Total	**$ 464,107**	**100.0%**	$ 218,767	100.0%

	Nine Months Ended			
	July 1, 2017		July 2, 2016	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales
Consolidated:				
Microelectronics	**$ 628,498**	**51.0%**	$ 310,703	51.0%
OEM components and instrumentation	**151,650**	**12.3%**	119,025	19.6%
Materials processing	**364,788**	**29.6%**	87,564	14.4%
Scientific and government programs	**88,077**	**7.1%**	91,632	15.0%
Total	**$ 1,233,013**	**100.0%**	$ 608,924	100.0%

Quarterly

Net sales in the third quarter of fiscal 2017 included $116.5 million of Rofin net sales, primarily in the materials processing market. Net sales for the third quarter of fiscal 2017 increased by $245.3 million, or 112%, compared to the third quarter of fiscal 2016, with significant increases in the microelectronics and materials processing markets and smaller increases in the OEM components and instrumentation and scientific and government programs markets.

The increase in the microelectronics market of $125.4 million, or 108%, was primarily due to higher shipments related to ELA tools used in the flat panel display market as well as higher shipments related to advanced packaging applications and higher shipments for semiconductor applications. We expect continued growth in the microelectronics market with flat panel display demand driving additional manufacturing capacity expansion, continued growth in the semiconductor capital equipment market and continued recovery in the advanced packaging market. Sales in the materials processing market increased $106.1 million, or 291%, primarily due to the addition of Rofin net sales and higher shipments for other materials processing applications. We expect continued growth in multiple materials processing applications including automotive and machine tooling, medical device manufacturing, consumer goods manufacturing for packaging, converting and marking and additive manufacturing. We also expect continued steady progress in sales of our high power fiber lasers and are expanding our manufacturing capacity accordingly. The increase in the OEM components and instrumentation market of $12.2 million, or 32%, was due primarily to higher shipments for medical, military and bio-instrumentation applications, with much of the increase in military applications due to our acquisition of Rofin. In OEM Components and instrumentation applications, we are seeing strong demand in the bio-instrumentation market, higher demand for consumables in the medical market for lithotripsy (treatment of kidney stones) and eye disease management as well as increased demand in the defense and aerospace market. Sales in the scientific and government programs market increased $1.7 million, or 6%, due to higher demand for advanced research applications used by university and government research groups, particularly in Asia and Europe. We expect demand in the scientific and government programs market to continue to fluctuate from quarter to quarter.

Year-to-date

Net sales in the first nine months of fiscal 2017 included $301.6 million of Rofin net sales since the acquisition on November 7, 2016, primarily in the materials processing market. Net sales for the first nine months of fiscal 2017 increased by $624.1 million, or 102%, compared to the first nine months of fiscal 2016, with significant increases in the microelectronics and materials processing markets, a smaller increase in the OEM components and instrumentation market and a decrease in the scientific and government programs market.

The increase in the microelectronics market of $317.8 million, or 102%, was primarily due to higher shipments related to ELA tools used in the flat panel display market and higher shipments related to advanced packaging and semiconductor applications. Sales in the material processing market increased $277.2 million, or 317%, primarily due to the addition of Rofin net sales and higher shipments for automotive and other materials processing applications. The increase in the OEM components and instrumentation market of $32.6 million, or 27%, was due primarily to higher shipments for medical, military and bio-instrumentation applications, with much of the increase in military applications due to our acquisition of Rofin. Sales in the scientific and government programs market decreased $3.6 million, or 4%, primarily due to lower demand for advanced research applications used by university and government research groups in the U.S.

The timing for shipments of our higher average selling price excimer products in the flat panel display market have historically fluctuated and are in the future expected to fluctuate from quarter-to-quarter due to customer scheduling, our ability to manufacture these products and/or availability of critical component parts and supplies. As a result, the timing to convert orders for these products to net sales will likely fluctuate from quarter-to-quarter.

Segments

We are organized into two reportable operating segments: OLS and ILS. While both segments deliver cost-effective, highly reliable photonics solutions, OLS is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. ILS delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing. The following tables set forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by segment (dollars in thousands):

	Three Months Ended			
	July 1, 2017		July 2, 2016	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales
Consolidated:				
OEM Laser Sources (OLS)	**$ 309,925**	**66.8%**	$ 183,544	83.9%
Industrial Lasers & Systems (ILS)	**154,182**	**33.2%**	35,223	16.1%
Total	**$ 464,107**	**100.0%**	$ 218,767	100.0%

	Nine Months Ended					
	July 1, 2017			July 2, 2016		
		Amount	Percentage of total net sales		Amount	Percentage of total net sales
Consolidated:						
OEM Laser Sources (OLS)	**$**	**825,805**	**67.0%**	$	509,416	83.7%
Industrial Lasers & Systems (ILS)		**407,208**	**33.0%**		99,508	16.3%
Total	**$**	**1,233,013**	**100.0%**	$	608,924	100.0%

Quarterly

Net sales for the third quarter of fiscal 2017 increased by $245.3 million, or 112%, compared to the third quarter of fiscal 2016, with increases of $126.4 million, or 69%, in our OLS segment and $119.0 million, or 338%, in our ILS segment. Net sales in the third quarter of fiscal 2017 included $116.5 million of Rofin net sales, contributing $114.9 million and $1.6 million to the ILS and OLS segments, respectively.

The increase in our OLS segment sales was primarily due to higher shipments of ELA tools used in the flat panel display market and higher service revenue as well as higher shipments for semiconductor applications. The increase in our ILS segment sales was primarily due to higher shipments for materials processing, microelectronics and OEM components and instrumentation applications due to our acquisition of Rofin as well as higher shipments to the medical, flat panel display and advanced packaging markets.

Year-to-date

Net sales for the first nine months of fiscal 2017 increased by $624.1 million, or 102.5%, compared to the first nine months of fiscal 2016, with increases of $316.4 million, or 62.1%, in our OLS segment and $307.7 million, or 309.2%, in our ILS segment. Net sales in the first nine months of fiscal 2017 included $301.6 million of Rofin net sales, contributing $297.4 million and $4.2 million to the ILS and OLS segments, respectively.

The increase in our OLS segment sales was primarily due to higher shipments of ELA tools used in the flat panel display market and higher service revenue as well as higher shipments for materials processing, semiconductor and advanced packaging applications partially offset by lower shipments for scientific and government programs. The increase in our ILS segment sales was primarily due to higher shipments for materials processing, OEM components and instrumentation and microelectronics applications due to our acquisition of Rofin as well as higher shipments to the flat panel display, medical and advanced packaging markets.

GROSS PROFIT

Consolidated

Our gross profit rate increased by 1.4% to 44.6% in the third quarter of fiscal 2017 from 43.2% in the third quarter of fiscal 2016 and decreased by 1.1% to 42.8% in the first nine months of fiscal 2017 from 43.9% in the same period one year ago.

The 1.4% third quarter increase in the gross profit rate was primarily due to improvements in product margins of Coherent historical products (8.5%) primarily due to favorable mix in flat panel display applications for both system sales and service and favorable mix in other microelectronics applications, the favorable leverage of manufacturing costs on higher volumes as well as lower inventory provisions for excess and obsolete inventory and reduced freight costs as a percentage of sales due to the impact of significantly higher net sales. The increases were partially offset by the impact of our acquisition of Rofin due to Rofin's historical margins that are lower than Coherent's historical margins (3.8% before considering purchase accounting adjustments) as well as the impact of purchase accounting adjustments (3.3%) for amortization of inventory step-up and amortization of intangibles related to our acquisition of Rofin in the first quarter of fiscal 2017.

The 1.1% decrease in the gross profit rate during the first nine months of fiscal 2017 was primarily due to the impact of purchase accounting adjustments (4.6%) for amortization of inventory step-up and amortization of intangibles related to our acquisition of Rofin in the first quarter of fiscal 2017. Also contributing to the decrease was the impact of our acquisition of Rofin due to Rofin's historical margins that are lower than Coherent's historical margins (2.9% before considering purchase accounting adjustments). The decreases were partially offset by improvements in margins of Coherent historical products

(6.4%) primarily due to the favorable leverage of manufacturing costs on higher volumes and favorable mix in flat panel display applications for both system sales and service as well as lower warranty costs due to lower warranty events and lower inventory provisions for excess and obsolete inventory and reduced freight costs as a percentage of sales due to the impact of significantly higher net sales.

Our gross profit rate has been and will continue to be affected by a variety of factors including market and product mix, pricing on volume orders, shipment volumes, our ability to manufacture advanced and more complex products, manufacturing efficiencies, excess and obsolete inventory write-downs, warranty costs, amortization of intangibles, pricing by competitors or suppliers, new product introductions, production volume, customization and reconfiguration of systems, commodity prices and foreign currency fluctuations, particularly the recent strengthening of the Euro.

OEM Laser Sources

The gross profit rate in our OLS segment increased by 6.2% to 53.8% in the third quarter of fiscal 2017 from 47.6% in the third quarter of fiscal 2016. The gross profit rate in our OLS segment increased by 5.5% to 53.3% in the first nine months of fiscal 2017 from 47.8% in the same period one year ago.

The 6.2% third quarter increase in the gross profit rate was primarily due to favorable product margins (5.0%) as a result of favorable mix within flat panel display applications for both systems and service and favorable mix in other microelectronics and materials processing applications as well as better leverage of manufacturing costs on higher volumes and the favorable impact of the weaker Euro. Also contributing to the increase in gross profit rate were lower other costs (0.9%) due to lower inventory provisions for excess and obsolete inventory and reduced freight and duty costs as a percentage of revenue in certain business units due to the impact of significantly higher sales and lower intangibles amortization (0.3%) as a percentage of sales.

The 5.5% increase in the gross profit rate during the first nine months of fiscal 2017 was primarily due to favorable product margins (4.1%) as a result of higher leverage of manufacturing costs on higher volumes, favorable mix within flat panel display applications for both systems and service and favorable mix in other microelectronics and materials processing applications as well as the favorable impact of the weaker Euro compared to the first nine months of fiscal 2016. Also contributing to the increase in gross profit rate as a percentage of sales due to the impact of significantly higher sales were lower other costs (0.7%) due to lower inventory provisions for excess and obsolete inventory and reduced freight and duty costs in certain business units, lower warranty and installation (0.4%) and lower intangibles amortization (0.3%).

Industrial Lasers & Systems

The gross profit rate in our ILS segment increased by 4.5% to 26.9% in the third quarter of fiscal 2017 from 22.4% in the third quarter of fiscal 2016. The gross profit rate in our ILS segment decreased by 3.3% to 22.3% in the first nine months of fiscal 2017 from 25.6% in the same period one year ago.

The 4.5% third quarter increase in the gross profit rate was primarily due to the favorable impact of Rofin's margins before considering purchase accounting adjustments especially diode and fiber components and the leverage of manufacturing costs, inventory provisions and warranty on higher volumes. The increases in gross profit rate were partially offset by the impact of purchase accounting adjustments (9.5%) for amortization of intangibles and inventory step-up related to our acquisition of Rofin in the first quarter of fiscal 2017. The amortization of inventory step-up related to our acquisition of Rofin was completed in the third quarter of fiscal 2017

The 3.3% decrease in the gross profit rate during the first nine months of fiscal 2017 was primarily due to the impact of purchase accounting adjustments (13.0%) for amortization of intangibles and inventory step-up related to our acquisition of Rofin in the first quarter of fiscal 2017 and restructuring costs (1.0%) related to the implementation of planned restructuring activities in connection with our acquisition of Rofin, which is primarily related to the exit from our preexisting high power fiber laser product line. The decreases in gross profit rate were partially offset by the favorable impact of Rofin's margins before considering purchase accounting adjustments.

OPERATING EXPENSES:

	Three Months Ended			
	July 1, 2017		July 2, 2016	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales
	(Dollars in thousands)			
Research and development	**$ 30,483**	**6.6%**	$ 21,441	9.8%
Selling, general and administrative	**72,383**	**15.6%**	46,256	21.1%
Amortization of intangible assets	**3,743**	**0.8%**	574	0.3%
Total operating expenses	**$ 106,609**	**23.0%**	$ 68,271	31.2%

	Nine Months Ended			
	July 1, 2017		July 2, 2016	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales
	(Dollars in thousands)			
Research and development	**$ 88,103**	**7.1 %**	$ 61,536	10.1%
Selling, general and administrative	**218,602**	**17.7 %**	123,970	20.4%
Gain on business combination	**(5,416)**	**(0.4)%**	—	—%
Amortization of intangible assets	**13,060**	**1.1 %**	1,975	0.3%
Total operating expenses	**$ 314,349**	**25.5 %**	$ 187,481	30.8%

Research and development

Quarterly

Research and development ("R&D") expenses increased $9.0 million, or 42%, during the third fiscal quarter ended July 1, 2017 compared to the same quarter one year ago. The increase was primarily due to Rofin R&D expenses ($9.6 million) as they were acquired on November 7, 2016. The increase was partially offset by $0.6 million lower project spending on materials net of lower reimbursements from customers and higher variable compensation.

On a segment basis as compared to the prior year period, OLS research and development spending increased $1.4 million primarily due to higher net spending on projects. ILS spending increased $7.6 million primarily due to our acquisition of Rofin partially offset by lower project spending. Our advanced research business unit, which is reflected in Corporate and other spending, was flat compared to the prior year period.

Year-to-date

R&D expenses increased $26.6 million, or 43%, during the nine months ended July 1, 2017 compared to the same period one year ago. The increase for the nine months was primarily due to the addition of Rofin R&D expenses ($22.4 million, excluding $0.8 million of restructuring costs for severance) since the acquisition on November 7, 2016, $1.7 million of restructuring costs related to the exit from our historical Coherent high power fiber laser product line in the first quarter of fiscal 2017 and $1.4 million higher project spending, including higher variable compensation and lower reimbursements from customers. There were also increases of $0.7 million for higher stock-based compensation expense including $0.4 million related to a charge recorded in the first quarter of fiscal 2017 due to the acceleration of Rofin options and $0.4 million higher charges for increases in deferred compensation plan liabilities.

On a segment basis as compared to the prior year period, OLS research and development spending increased $4.8 million primarily due to higher net spending on projects. ILS spending increased $19.8 million primarily due to our acquisition of Rofin and restructuring costs, partially offset by lower project spending. Corporate and other spending increased $1.9 million due to higher stock-based compensation expense, higher charges for increases in deferred compensation plan liabilities and higher project spending in our advanced research business unit.

Selling, general and administrative

Quarterly

Selling, general and administrative ("SG&A") expenses increased $26.1 million, or 56%, during the third fiscal quarter ended July 1, 2017 compared to the same quarter one year ago. The increase was primarily due to the addition of Rofin SG&A expenses ($19.7 million excluding $0.7 million restructuring costs for severance) following the acquisition in the first quarter of fiscal 2017, $6.0 million higher other spending on legal, consulting and infrastructure related to integration activities and the debt repricing as well other variable spending in support of higher sales and $1.9 million higher payroll spending for variable compensation, commissions and salaries and benefits. SG&A expenses also increased as a result of $1.0 million higher stock-based compensation expense due to higher expense for new grants and $0.7 million of restructuring costs. The increases were offset by decreased $2.6 million lower spending as compared to the prior year period due to lower financial advisory, consulting and legal costs related to our acquisition of Rofin and $0.6 million due to lower charges for increases in deferred compensation plan liabilities.

On a segment basis as compared to the prior year period, OLS segment expenses increased $5.4 million primarily due to higher payroll and other variable spending as well as spending relating to a historical Rofin business unit which is included in our OLS segment. ILS spending increased $19.8 million primarily due to our acquisition of Rofin, higher other spending on infrastructure related to integration activities and higher payroll spending. Corporate and other spending increased $0.9 million primarily due to higher other spending on legal, consulting and infrastructure related to integration activities and the debt repricing, higher payroll spending and higher stock-based compensation expense partially offset by lower financial advisory, consulting and legal costs related to our acquisition of Rofin and lower charges for increases in deferred compensation plan liabilities.

Year-to-date

SG&A expenses increased $94.6 million, or 76.3%, during the nine months ended July 1, 2017 compared to the same period one year ago. The increase for the first nine months was primarily due to the addition of Rofin SG&A expenses ($52.5 million excluding $2.5 million restructuring costs for severance) following the acquisition in the first quarter of fiscal 2017, $11.5 million higher other spending on legal, consulting and infrastructure related to integration activities and the debt repricing as well as other variable spending in support of higher sales, $11.0 million higher financial advisory, consulting and legal costs related to our acquisition of Rofin and $8.1 million higher payroll spending for variable compensation, commissions and salaries and benefits. SG&A expense also increased due to $7.0 million higher stock-based compensation expense, including $3.4 million related to a charge recorded in the first quarter of fiscal 2017 due to the acceleration of Rofin options, as well as higher expense for new grants, $3.0 million of restructuring costs (primarily severance) and $1.5 million higher charges for increases in deferred compensation plan liabilities.

On a segment basis as compared to the prior year period, OLS segment expenses increased $16.9 million primarily due to higher payroll and other variable spending as well as spending relating to a historical Rofin business unit which is included in our OLS segment. ILS spending increased $52.3 million primarily due to our acquisition of Rofin and higher payroll and other variable spending. Corporate and other spending increased $25.4 million primarily due to higher financial advisory, consulting and legal costs related to our acquisition of Rofin, higher stock-based compensation expense, higher charges for increases in deferred compensation plan liabilities and higher payroll spending.

Gain on business combination

On November 7, 2016, we acquired Rofin at a price of $32.50 per share of Rofin common stock (See Note 3 "Business Combinations" in the Notes to Condensed Consolidated Financial Statements). We recognized a gain of $5.4 million in the first quarter of fiscal 2017 on the increase in fair value from the date of purchase for the shares of Rofin we owned prior to the acquisition.

Amortization of intangible assets

Amortization of intangible assets increased $3.2 million and $11.1 million in the three and nine months ended July 1, 2017, respectively, compared to the same periods last year. The increases were primarily due to our acquisition of Rofin in the first quarter of fiscal 2017.

OTHER INCOME (EXPENSE) — NET

Other income (expense), net, changed by $8.8 million to other expense of $7.9 million in the third quarter of fiscal 2017 from other income of $0.9 million in the third quarter of fiscal 2016. Other income (expense), net, changed by $11.9 million to other expense of $13.0 million in the first nine months of fiscal 2017 from other expense of $1.2 million in the first nine months of fiscal 2016.

The third fiscal quarter increase in net other expense was primarily due to $7.4 million higher interest expense due to interest on the Euro Term Loan to fund our acquisition of Rofin as well as amortization of debt issuance costs related to the Euro Term Loan and $1.2 million higher foreign exchange losses primarily due to the impact of changing rates on cash conversions.

The increase for the first nine months of fiscal 2017 in net other expense was primarily due to higher interest expense of $24.3 million partially offset by $10.7 million higher foreign exchange gains and $2.0 million higher gains, net of expenses, on our deferred compensation plan assets. Interest expense increased due to interest on the Euro Term Loan and interest on the commitment of the Euro Term Loan to fund our acquisition of Rofin as well as amortization of debt issuance costs related to the Euro Term Loan. The higher foreign exchange gains were primarily due to a gain of $11.3 million on forward contracts associated with our foreign exchange risk related to the commitment of our Euro Term Loan and the issuance of the Euro Term Loan to finance our acquisition of Rofin partially offset by the impact of changing rates on cash conversions.

INCOME TAXES

The effective tax rate on income from continuing operations before income taxes for the third quarter of fiscal 2017 of 32.1% and the effective tax rate on income from continuing operations before income taxes for the first nine months of fiscal 2017 of 32.4% were lower than the statutory rate of 35.0% primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and the benefit of federal research and development tax credits. These amounts are partially offset by Rofin transaction costs not deductible for tax purposes, tax costs of Rofin restructuring, ASC 740-10 (formerly FIN48) tax liabilities for transfer pricing, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

The effective tax rate on income from continuing operations before income taxes for the third quarter of fiscal 2016 of 31.3% and the effective tax rate on income from continuing operations before income taxes for the first nine months of fiscal 2016 of 27.7% were lower than the statutory rate of 35.0% primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and the benefit of federal research and development tax credits including renewal of the federal research and development credits for fiscal 2015. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules including an intercompany loan from Coherent Korea that will likely be repaid in fiscal 2017, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

LIQUIDITY AND CAPITAL RESOURCES

At July 1, 2017, we had assets classified as cash and cash equivalents and short-term investments, in an aggregate amount of $472.4 million, compared to $400.0 million at October 1, 2016. Our cash and cash equivalents and short-term investments included $189.0 million of cash at Rofin entities. In addition, at July 1, 2017, we had $13.6 million of restricted cash. At July 1, 2017, approximately $338.0 million of our cash and securities was held in certain of our foreign subsidiaries, $304.0 million of which was denominated in currencies other than the U.S. dollar. At July 1, 2017, we had approximately $337.2 million of cash held by foreign subsidiaries where we intend to permanently reinvest our accumulated earnings in these entities and our current plans do not demonstrate a need for these funds to support our domestic operations. If, however, a portion of these funds are needed for and distributed to our operations in the United States, we may be subject to additional U.S. income taxes and foreign withholding taxes. An exception to U.S. taxation may be the repatriation of foreign funds that had been previously taxed in the U.S. as Subpart F income. The amount of the U.S. and foreign taxes due would depend on the amount and manner of repatriation, as well as the location from where the funds are repatriated. We actively monitor the third-party depository institutions that hold these assets, primarily focusing on the safety of principal and secondarily maximizing yield on these assets. We diversify our cash and cash equivalents and investments among various financial institutions, money market funds, sovereign debt and other securities in order to reduce our exposure should any one of these financial institutions or financial instruments fail or encounter difficulties. To date, we have not experienced any material loss or lack of access to our invested cash, cash equivalents or short-term investments. However, we can provide no assurances that access to our invested cash, cash equivalents or short-term investments will not be impacted by adverse conditions in the financial markets. In the first quarter of fiscal 2017, we spent a significant portion of our foreign funds on the Rofin acquisition. We did not repatriate foreign funds to our domestic operations to fund this acquisition. We expect to have adequate foreign funds in the future to service the acquisition debt and do not anticipate any repatriation of foreign funds to operate our domestic business.

In fiscal 2016, 2015 and 2014, we converted a total of $160.6 million of cash and securities held in certain of our foreign subsidiaries to U.S. dollars and invested those funds within a European subsidiary whose functional currency is the U.S. dollar. In the first quarter of fiscal 2017, we used these funds to purchase Rofin and pay related acquisition expenses. The converted funds were not repatriated to the U.S. and no U.S. tax was triggered on the transfer of these funds to the European subsidiary. See ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK below for more information about risks and trends related to foreign currencies.

Sources and Uses of Cash

Historically, our primary source of cash has been provided by operations. Other sources of cash in the past three fiscal years include proceeds from our Euro Term Loan used to finance our acquisition of Rofin, proceeds received from the sale of our stock through our employee stock purchase plan as well as borrowings under our domestic line of credit. Our historical uses of cash have primarily been for the repurchase of our common stock, acquisitions of businesses and technologies, capital expenditures and debt issuance costs. Supplemental information pertaining to our historical sources and uses of cash is presented as follows and should be read in conjunction with our condensed consolidated statements of cash flows and the notes to condensed consolidated financial statements:

	Nine Months Ended	
	July 1, 2017	**July 2, 2016**
	(in thousands)	
Net cash provided by operating activities	**$ 285,282**	$ 54,621
Sales of shares under employee stock plans	**8,111**	7,249
Borrowings, net of repayments	**630,221**	20,000
Acquisition of businesses, net of cash acquired	**(740,481)**	—
Debt issuance costs	**(26,367)**	(2,530)
Capital expenditures	**(45,352)**	(28,310)

Net cash provided by operating activities increased by $230.7 million for the first nine months of fiscal 2017 compared to the same period one year ago. The increase in cash provided by operating activities was primarily due to higher net income, higher cash flows due to higher non-cash expenses for amortization, stock-based compensation and depreciation, higher deferred revenue and higher cash flows from the timing of shipments of large systems from inventory partially offset by lower cash flows from accounts receivable. We believe that our existing cash, cash equivalents and short term investments combined with cash to be provided by operating activities and amounts available under our revolving credit facility will be adequate to cover our working capital needs and planned capital expenditures for at least the next 12 months to the extent such items are known or are reasonably determinable based on current business and market conditions. However, we may elect to finance certain of our capital expenditure requirements through other sources of capital. We continue to follow our strategy to further strengthen our financial position by using available cash flow to fund operations.

We intend to continue to consider acquisition opportunities at valuations we believe are reasonable based upon market conditions. However, we cannot accurately predict the timing, size and success of our acquisition efforts or our associated potential capital commitments. Furthermore, we cannot assure you that we will be able to acquire businesses on terms acceptable to us. We expect to fund future acquisitions through additional borrowings (as in our acquisition of Rofin), existing cash balances and cash flows from operations. If required, we will consider the issuance of securities. The extent to which we will be willing or able to use our common stock to make acquisitions will depend on its market value at the time and the willingness of potential sellers to accept it as full or partial payment.

On November 7, 2016 (the "Closing Date"), we entered into a Credit Agreement by and among us, Coherent Holding GmbH, as borrower (the “Borrower”), and certain of our direct and indirect subsidiaries from time to time party thereto, as guarantors, the lenders from time to time party thereto, Barclays, as administrative agent and an L/C Issuer, BAML as an L/C Issuer, and MUFG as an L/C Issuer (the "Credit Agreement"). The Credit Agreement provides for a 670.0 million Euro senior secured term loan facility (the "Euro Term Loan") and a $100.0 million senior secured revolving credit facility ("Revolving Credit Facility") with a $30.0 million letter of credit sublimit and a $10.0 million swing line sublimit. The Borrower may increase the aggregate revolving commitments or borrow incremental term loans in an aggregate principal amount not to exceed the sum of $150.0 million and an amount that would not cause the senior secured net leverage ratio to be greater than 2.75 to 1.00, subject to certain conditions, including obtaining additional commitments from the lenders then party to the Credit Agreement or new lenders. On November 7, 2016, the Borrower borrowed the full 670.0 million Euros under the Euro Term Loan and its proceeds were used to finance our acquisition of Rofin and pay related fees and expenses. On November 7, 2016, we also used 10.0 million Euros of the capacity under the Revolving Credit Facility for the issuance of a letter of credit.

Loans under the Credit Agreement bear interest, at the Borrower's option, at a rate equal to either (i)(x) in the case of calculations with respect to U.S. Dollars or certain other alternative currencies, the London interbank offered rate (the "LIBOR") or (y) in the case of calculations with respect to the Euro, the euro interbank offered rate ("EURIBOR" and, together with LIBOR, the "Eurocurrency Rate") or (ii) a base rate (the "Base Rate") equal to the highest of (x) the federal funds rate, plus 0.50%, (y) the prime rate then in effect and (z) the Eurocurrency Rate for loans denominated in U.S. dollars applicable to a one-month interest period, plus 1.0%, in each case, plus an applicable margin. The applicable margin for Euro Term Loan borrowed as Eurocurrency Rate loans, is 3.50% initially, and following the first anniversary of the Closing Date ranges from 3.50% to 3.00% depending on the consolidated total gross leverage ratio at the time of determination. For Euro Term Loan borrowed as Base Rate loans, the applicable margin initially is 2.50%, and following the first anniversary of the Closing Date ranges from 2.50% to 2.00% depending upon the consolidated total gross leverage ratio at the time of determination. The applicable margin for revolving loans borrowed as Eurocurrency Rate loans, ranges from 4.25% to 3.75%, and for revolving loans borrowed as Base Rate loans, ranges from 3.25% to 2.75%, in each case, based on the consolidated total gross leverage ratio at the time of determination. Interest on Base Rate loans is payable quarterly in arrears. Interest on Eurocurrency Rate loans is payable at the end of the applicable interest period (or at three month intervals if the interest period exceeds three months). Interest periods for Eurocurrency Rate loans may be, at the Borrower's option, one, two, three or six months.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement to, among other things, (i) reduce the applicable interest rate margins with respect to the Euro Term Loans to 1.25% for Euro Term Loans maintained as Base Rate loans and 2.25% for Euro Term Loans maintained as Eurocurrency Rate loans, with stepdowns to 1.00% and 2.00%, respectively, available after May 8, 2018 if the consolidated total gross leverage ratio for Coherent and its restricted subsidiaries is less than 1.50:1.00 and (ii) extend the period during which a prepayment premium may be required for a repricing transaction until six months after the effective date of the Repricing Amendment. In connection with the execution of the Repricing Amendment, we paid arrangement fees of approximately $0.5 million, as well as certain fees and expenses of the administrative agent and the Lenders, in accordance with the terms of the Credit Agreement.

On June 30, 2017 and March 31, 2017, we made voluntary principal payments of 45.0 million Euros and 30.0 million Euros, respectively, on the Euro Term Loan. As of July 1, 2017, the outstanding principal amount of the Euro Term Loan was 590.0 million Euros. As of July 1, 2017, the outstanding principal amount of the Revolving Credit Facility was 10.0 million Euros.

The Credit Agreement requires the Borrower to make scheduled quarterly payments on the Euro Term Loan of 0.25% of the original principal amount of the Euro Term Loan, with any remaining principal payable at maturity. A commitment fee accrues on any unused portion of the revolving loan commitments under the Credit Agreement at a rate of 0.375% or 0.5% depending on the consolidated total gross leverage ratio at any time of determination. The Borrower is also obligated to pay other customary fees for a credit facility of this size and type.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material respect, change in control of us and the Borrower, judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all Obligations, as defined in the Credit Agreement, and may exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. We were in compliance with all covenants at July 1, 2017.

The aggregate consideration paid by us to the former Rofin stockholders in the first quarter of fiscal 2017 was approximately $904.5 million, excluding related transaction fees and expenses. We also paid $15.3 million due to the cancellation of options held by employees of Rofin. We paid $5.2 million of debt issuance costs in fiscal 2016 and incurred approximately $26.4 million of debt issuance costs in the first nine months of fiscal 2017. In the fourth quarter of fiscal 2016, and the first quarter of fiscal 2017, we recorded an interest charge of $1.1 million and $2.7 million, respectively, in other income (expense) in our consolidated statement of operations related to the debt financing commitment. In the first nine months of fiscal 2017, we made debt principal payments $87.7 million, including voluntary prepayments of $82.3 million, recorded interest expense on the Euro Term Loan of $18.3 million and recorded $2.9 million amortization of debt issuance costs.

In relation to our acquisition of Rofin, we paid Barclays, our financial advisor, a fee of approximately $9.5 million, $1.0 million of which was paid upon delivery of the fairness opinion in the second quarter of fiscal 2016, and the remaining portion of which was paid upon consummation of the acquisition in the first quarter of fiscal 2017; these fees were recorded as SG&A expense.

Additional sources of cash available to us were international currency lines of credit and bank credit facilities totaling $28.7 million as of July 1, 2017, of which $23.0 million was unused and available. These unsecured international credit facilities were used in Europe and Japan during the first nine months of fiscal 2017. As of July 1, 2017, we had utilized $5.5 million of the international credit facilities as guarantees in Europe.

At July 1, 2017, $1.1 million and $12.5 million of cash collateralized primarily for domestic and international guarantees was restricted and classified as current and non-current restricted cash, respectively, on our condensed consolidated balance sheet.

Our ratio of current assets to current liabilities was 3.3:1 at July 1, 2017 compared to 4.0:1 at October 1, 2016. The decrease in our ratio is primarily due to the use of cash in our acquisition of Rofin and higher income taxes payable and deferred income partially offset by the impact of Rofin's current assets and current liabilities. Our cash and cash equivalents, short-term investments and working capital are as follows:

	July 1, 2017	October 1, 2016
	(in thousands)	
Cash and cash equivalents	$ **472,307**	$ 354,347
Short-term investments	**120**	45,606
Working capital	**882,263**	614,145

Contractual Obligations and Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined under Regulation S-K of the Securities Act of 1933. The following summarizes our contractual obligations at July 1, 2017 and the effect such obligations are expected to have on our liquidity and cash flow in future periods (in thousands):

	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Operating lease payments	$ 52,950	$ 16,061	$ 21,685	$ 9,321	$ 5,883
Asset retirement obligations	5,912	—	2,641	422	2,849
Debt principal, interest and fees	807,673	7,457	88,990	57,986	653,240
Pension obligations	36,064	1,652	3,335	7,103	23,974
Purchase commitments for inventory	173,252	168,722	4,530	—	—
Purchase obligations-other	13,115	9,930	2,360	825	—
Total	$ 1,088,966	$ 203,822	$ 123,541	$ 75,657	$ 685,946

Because of the uncertainty as to the timing of such payments, we have excluded cash payments related to our contractual obligations for our deferred compensation plans aggregating $34.0 million at July 1, 2017.

Changes in Financial Condition

Cash provided by operating activities during the first nine months of fiscal 2017 was $285.3 million, which included net income of $133.4 million, cash provided by operating assets and liabilities of $53.8 million (primarily increases in deferred income, taxes payable and accounts payable net of decreases in accounts receivable), depreciation and amortization of $78.8 million, stock-based compensation expense of $19.1 million, non-cash restructuring charges of $4.4 million, net decreases in deferred tax assets of $2.0 million and $0.1 million other partially offset by the $5.4 million gain on business combination and $0.9 million net cash flows used by discontinued operations. Cash provided by operating activities during the first nine months of fiscal 2016 was $54.6 million, which included net income of $56.7 million, depreciation and amortization of $25.6 million, stock-based compensation expense of $14.8 million and $0.4 million other partially offset by cash used by operating assets and liabilities of $39.6 million and net increases in deferred taxes of $3.4 million.

Cash used in investing activities during the first nine months of fiscal 2017 was $760.4 million, which included $740.5 million net of cash acquired to purchase Rofin, $44.4 million used to acquire property and equipment, purchase and upgrade buildings, net of proceeds from dispositions and $0.6 million net cash flows used by discontinued operations partially offset by $25.1 million net sales of available-for-sale securities. Cash used in investing activities during the first nine months of fiscal 2016 was $63.8 million, which included $27.9 million net used to acquire property and equipment and improve buildings net of proceeds from dispositions and $35.9 million net purchases of available-for-sale securities.

Cash provided by financing activities during the first nine months of fiscal 2017 was $595.5 million, which included $630.2 million net borrowings and $8.1 million generated from our employee stock option and purchase plans partially offset by $26.4 million debt issuance costs, $15.6 million outflows due to net settlement of restricted stock and $0.8 million payments to subsidiary minority shareholders. Cash provided by financing activities during the first nine months of fiscal 2016 was $20.2 million, which included $20.0 million net borrowings, $7.2 million generated from our employee stock option and stock purchase plans and $0.9 million increase in cash overdraft partially offset by $5.4 million net settlement of restricted stock and $2.5 million of debt issuance costs.

Changes in exchange rates during the first nine months of fiscal 2017 resulted in an increase in cash balances of $11.2 million. Changes in exchange rates during the first nine months of fiscal 2016 decreased our cash balances by $2.2 million.

RECENT ACCOUNTING STANDARDS

See Note 2. “Recent Accounting Standards” in the Notes to Condensed Consolidated Financial Statements for a full description of recent accounting pronouncements, including the respective dates of adoption or expected adoption and effects on our condensed consolidated financial position, results of operations and cash flows.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk disclosures

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

Interest rate sensitivity

A portion of our investment portfolio is composed of fixed income securities. These securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately (whether due to changes in overall market rates or credit worthiness of the issuers of our individual securities) and uniformly by 10% from levels at July 1, 2017, the fair value of the portfolio, based on quoted market prices in active markets involving similar assets, would decline by an immaterial amount due to their short-term maturities. We have the ability to generally hold our fixed income investments until maturity and therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our securities portfolio. If necessary, we may sell short-term investments prior to maturity to meet our liquidity needs.

At July 1, 2017, the fair value of our available-for-sale debt securities was $0.1 million, all of which was classified as short-term investments. There were no gross unrealized gains and losses on available-for-sale debt securities at July 1, 2017.

We are exposed to market risks related to fluctuations in interest rates related to our Term Loan Facility. As of July 1, 2017, we owed $673.8 million on this loan with an interest rate of 3.0%. We performed a sensitivity analysis on the outstanding portion of our debt obligation as of July 1, 2017. Should the current average interest rate increase or decrease by 10%, the resulting annual increase or decrease to interest expense would be approximately $2.0 million as of July 1, 2017.

Foreign currency exchange risk

We maintain operations in various countries outside of the United States and have foreign subsidiaries that manufacture and sell our products in various global markets. The majority of our sales are transacted in U.S. dollars. However, we do generate revenues in other currencies, primarily the Euro, the Japanese Yen, the South Korean Won and the Chinese Renminbi. Additionally we have operations in different countries around the world with costs incurred in the foregoing and in other local currencies, such as British Pound Sterling, Singapore Dollars and Malaysian Ringgit. As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. For example, we have significant manufacturing operations in Europe so that a weakening Euro is advantageous to the Company’s financial results. We attempt to limit these exposures through financial market instruments. We utilize derivative instruments, primarily forward contracts with maturities of four months or less, to manage our exposure associated with anticipated cash flows and net asset and liability positions denominated in foreign currencies. Gains and losses on the forward contracts are mitigated by gains and losses on the underlying instruments. We do not use derivative financial instruments for trading purposes.

On occasion, we enter into currency forward exchange contracts to hedge specific anticipated foreign currency denominated transactions generally expected to occur within the next 12 months. These cash flow hedges are designated for hedge accounting treatment and gains and losses on these contracts are recorded in accumulated other comprehensive income in stockholder's equity and reclassified into earnings at the time that the related transactions being hedged are recognized in earnings. See Note 6 "Derivative Instruments and Hedging Activities" in the Notes to Condensed Consolidated Financial Statements.

On August 1, 2016, we purchased forward contracts totaling 670.0 million Euros, with a value date of November 30, 2016, to limit our foreign exchange risk related to the commitment of our Euro Term Loan (denominated in Euros) in an amount of the Euro equivalent of $750.0 million to finance the U.S. dollar payment for our acquisition of Rofin. In the fourth quarter of fiscal 2016, we recognized an unrealized loss of $2.2 million on these forward contracts. In the first quarter of fiscal 2017, we settled these forward contracts at a net gain of $9.1 million, resulting in a realized gain of $11.3 million in the first quarter of fiscal 2017. See Note 6 "Derivative Instruments and Hedging Activities" in the Notes to Condensed Consolidated Financial Statements.

We do not anticipate any material adverse effect on our condensed consolidated financial position, results of operations or cash flows resulting from the use of these instruments. There can be no assurance that these strategies will be effective or that transaction losses can be minimized or forecasted accurately. While we model currency valuations and fluctuations, these may not ultimately be accurate. If a financial counterparty to any of our hedging arrangements experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses. In the current economic environment, the risk of failure of a financial party remains high.

At July 1, 2017, approximately $338.0 million of our cash, cash equivalents and short-term investments were held outside the U.S. in certain of our foreign operations, $304.0 million of which was denominated in currencies other than the U.S. dollar.

A hypothetical 10% change in foreign currency rates on our forward contracts would not have a material impact on our results of operations, cash flows or financial position.

The following table provides information about our foreign exchange forward contracts at July 1, 2017. The table presents the weighted average contractual foreign currency exchange rates, the value of the contracts in U.S. dollars at the contract exchange rate as of the contract maturity date and fair value. The U.S. fair value represents the fair value of the contracts valued at July 1, 2017 rates.

Forward contracts to sell (buy) foreign currencies for U.S. dollars (in thousands, except contract rates):

	Average Contract Rate	U.S. Notional Contract Value	U.S. Fair Value
Non-Designated - For US Dollars			
Euro	1.1225	$ (89,802)	$ (1,601)
Japanese Yen	110.5460	$ 25,329	$ (343)
British Pound	1.2842	$ 556	$ 7
South Korean Won	1,118.5600	$ 24,675	$ (550)
Chinese Renminbi	6.8515	$ 16,193	$ 185
Singapore Dollar	1.3819	$ (7,629)	$ (32)
Malaysian Ringgit	4.2880	$ 1,230	$ (1)
Non-Designated - For JPY			
Euro	1.0303	$ (48)	$ (5)

ITEM 4. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

We have evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as of July 1, 2017 ("Evaluation Date"). The controls evaluation was conducted under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded as of the Evaluation Date that our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Changes in Internal Control over Financial Reporting

In November 2016, we completed the acquisition of Rofin-Sinar Technologies, Inc. ("Rofin"). We are in the process of integrating Rofin into our systems and control environment as of July 1, 2017. We believe that we have taken the necessary steps to monitor and maintain appropriate internal control over financial reporting during this integration. Other than the impact of this business acquisition, there has been no change in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the three months ended July 1, 2017.

Inherent Limitations over Internal Control

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles ("GAAP"). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our internal control over financial reporting includes those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods are subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Information with respect to this item may be found in Note 11 to our condensed consolidated financial statements in Part I, Item 1 of this report and is incorporated herein by reference.

ITEM 1A. RISK FACTORS

You should carefully consider the followings risks when considering an investment in our Common Stock. These risks could materially affect our business, results of operations or financial condition, cause the trading price of our Common Stock to decline materially or cause our actual results to differ materially from those expected or those expressed in any forward-looking statements made by us. These risks are not exclusive, and additional risks to which we are subject include, but are not limited to, the factors mentioned under "Forward-Looking Statements" and the risk of our businesses described elsewhere in this annual report. Additionally, these risks and uncertainties described herein are not the only ones facing us. Other events that we do not currently anticipate or that we currently deem immaterial also may affect our business, results of operations or financial condition.

RISKS RELATED TO THE MERGER WITH ROFIN

We may not be able to integrate the business of Rofin successfully with our own or realize the anticipated benefits of the merger.

We will be required to devote significant management attention and resources to integrating our business practices with those of Rofin. Potential difficulties that we may encounter as part of the integration process include the following:

- the inability to successfully combine our business with Rofin in a manner that permits the combined company to achieve the full synergies and other benefits anticipated to result from the merger;
- complexities associated with managing the combined businesses, including difficulty addressing possible differences in corporate cultures and management philosophies and the challenge of integrating products, services, complex and different information technology systems (including different Enterprise Management Systems), control and compliance processes, technology, networks and other assets of each of the companies in a cohesive manner; and
- potential unknown liabilities and unforeseen increased expenses or delays related to the merger and the integration of Rofin, including as a result of the requirement for holding separate Rofin's business located in Hull, England.

In addition, we have operated independently prior to the acquisition and it is possible that the integration process following the transaction could result in:

- diversion of the attention of our management; and
- the disruption of, or the loss of momentum in, our business or inconsistencies in standards, controls, procedures or policies, any of which could adversely affect our ability to maintain relationships with customers, suppliers, employees and other constituencies or our ability to achieve the anticipated benefits of the merger, or could reduce our earnings or otherwise adversely affect our business and financial results.

Prior to the acquisition, Rofin's business faced risks and uncertainties, including those faced by our business and identified below. Rofin's business may not meet future expectations due to these factors despite our integration efforts.

Our future results will suffer if we do not effectively manage our expanded operations following the merger.

Following the merger, the size and complexity of the business of the combined company has increased significantly. Our future success depends, in part, upon our ability to manage this expanded business, which will pose substantial challenges for management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. There can be no assurances that we will be successful or that we will realize the expected synergies and benefits anticipated from the merger.

We have incurred and will continue to incur substantial expenses related to the merger with and the integration of Rofin.

We have and expect to continue to incur substantial expenses in connection with the merger and the integration of Rofin. There are a large number of processes, policies, procedures, operations, technologies and systems that will need to be integrated, including purchasing, accounting and finance, sales, payroll, pricing, marketing and employee benefits. While we have assumed that a certain level of expenses will be incurred, there are many factors beyond our control that could affect the total amount or the timing of the integration expenses. Moreover, many of the expenses that will be incurred are, by their nature, difficult to estimate accurately. These expenses could, particularly in the near term, exceed the savings we expect to achieve from the elimination of duplicative expenses and the realization of economies of scale and cost savings. These integration expenses could result in significant charges to earnings which we cannot currently quantify.

Charges to earnings resulting from the application of the purchase method of accounting to the Rofin acquisition may adversely affect our results of operations.

In accordance with generally accepted accounting principles, we have accounted for the Rofin acquisition using the purchase method of accounting, which will result in charges to earnings that could have a material adverse effect on the market value of our common stock following completion of the acquisition. Under the purchase method of accounting, we will allocate the total purchase price of Rofin's net tangible and identifiable intangible assets based upon their estimated fair values at the acquisition date. The excess of the purchase price over net tangible and identifiable intangible assets will be recorded as goodwill. We will incur additional depreciation and amortization expense over the useful lives of certain of the net tangible and intangible assets acquired in connection with the acquisition. In addition, to the extent the value of goodwill or intangible assets with indefinite lives becomes impaired, we may be required to incur material charges relating to the impairment of those assets. These depreciation, amortization and potential impairment charges could have a material impact on our results of operations.

Our indebtedness following the merger is substantially greater than our indebtedness prior to the merger. This increased level of indebtedness could adversely affect us, including by decreasing our business flexibility, and will increase our borrowing costs.

In November 2016 we entered into the Credit Agreement which provided for a 670 million Euro term loan, all of which was drawn, and a $100 million revolving credit facility, under which a 10 million Euro letter of credit has been issued. In May 2017, we entered into Amendment No. 1 and Waiver to the Credit Agreement, which amended certain provisions of the Credit Agreement. Due to principal payments made in the first six months of fiscal 2017, as of the time of the amendment, the outstanding principal of the Euro Term Loan was decreased to 636.7 million Euros. Due to principal payments in the third quarter of fiscal 2017, the balance is 590.0 million Euros as of July 1, 2017. We may incur additional indebtedness in the future by accessing the revolving credit facility under the Credit Agreement and/or entering into new financing arrangements. Our ability to pay interest and repay the principal of our current indebtedness is dependent upon our ability to manage our business operations and the ongoing interest rate environment. There can be no assurance that we will be able to manage any of these risks successfully.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material respect, change in control of the Company and the Borrower, judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all Obligations, as defined in the Credit Agreement, and may exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. There can be no assurance that we will have sufficient financial resources or we will be able to arrange financing to repay our borrowings at such time.

Our substantially increased indebtedness and higher debt-to-equity ratio following completion of the merger in comparison to that prior to the merger will have the effect, among other things, of reducing our flexibility to respond to changing business and economic conditions and will increase our borrowing costs. In addition, the amount of cash required to service our increased indebtedness levels and thus the demands on our cash resources will be greater than the amount of cash flows required to service our indebtedness or that of Rofin individually prior to the merger. The increased levels of indebtedness could also reduce funds available for our investments in product development as well as capital expenditures, dividends, share repurchases and other activities and may create competitive disadvantages for us relative to other companies with lower debt levels.

We may not be able to divest the Rofin business located in Hull, England on favorable terms.

On October 26, 2016, the European Commission approved under the EU Merger Regulation our acquisition of Rofin, conditional on the divestment of Rofin's low power CO_2 laser business based in Hull, United Kingdom (the "Hull Business") after the closing of the acquisition. We are required to hold the Hull Business separate until such time as it is divested. During fiscal years 2013 through 2015, the Hull Business had annual revenues of approximately 23-25 million British Pound Sterling and, accordingly, we will not have the revenue from the Hull Business once it is sold. In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business, submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. The European Commission has not yet determined whether it will approve or decline our proposed purchaser and the terms of such divestiture. If we are unable to successfully timely divest the Hull Business or if the European Commission does not approve our proposed sale thereof, then a divestiture trustee may be appointed by the European Commission and the terms for any sale of the Hull Business will be at the discretion of such trustee. During the period of time in which we are holding the Hull Business separate, the conditions for such structure may be a distraction on certain members of our senior management team.

BUSINESS ENVIRONMENT AND INDUSTRY TRENDS

Our operating results, including net sales, net income (loss) and adjusted EBITDA in dollars and as a percentage of net sales, as well as our stock price have varied in the past, and our future operating results, including those results from the newly acquired Rofin business, will continue to be subject to quarterly and annual fluctuations based upon numerous factors, including those discussed in this Item 1A and throughout this report. Our stock price will continue to be subject to daily variations as well. Our future operating results and stock price may not follow any past trends or meet our guidance and expectations.

Our net sales and operating results, such as adjusted EBITDA percentage, net income (loss) and operating expenses, and our stock price have varied in the past and may vary significantly from quarter to quarter and from year to year in the future. We believe a number of factors, many of which are outside of our control, could cause these variations and make them difficult to predict, including:

- general economic uncertainties in the macroeconomic and local economies facing us, our customers and the markets we serve;
- fluctuations in demand for our products or downturns in the industries that we serve;
- the ability of our suppliers, both internal and external, to produce and deliver components and parts, including sole or limited source components, in a timely manner, in the quantity, quality and prices desired;
- the timing of receipt and conversion of bookings to net sales;
- the concentration of a significant amount of our backlog, and resultant net sales, with a few customers in the Microelectronics market;
- rescheduling of shipments or cancellation of orders by our customers;
- fluctuations in our product mix;
- the ability of our customers' other suppliers to provide sufficient material to support our customers' products;
- currency fluctuations and stability, in particular the Euro, the Japanese Yen, the South Korean Won, the Chinese RMB and the US dollar as compared to other currencies;
- commodity pricing;
- introductions of new products and product enhancements by our competitors, entry of new competitors into our markets, pricing pressures and other competitive factors;
- our ability to develop, introduce, manufacture and ship new and enhanced products in a timely manner without defects;

- our ability to manage our manufacturing capacity across our diverse product lines and that of our suppliers, including our ability to successfully expand our manufacturing capacity in Göttingen, Germany and Osan, South Korea, and add optics fabrication capacity at our site in Richmond, California;
- our ability to successfully internally transfer products as part of our integration efforts;
- our reliance on contract manufacturing;
- our reliance in part upon the ability of our OEM customers to develop and sell systems that incorporate our laser products;
- our customers' ability to manage their susceptibility to adverse economic conditions;
- the rate of market acceptance of our new products;
- the ability of our customers to pay for our products;
- expenses associated with acquisition-related activities;
- seasonal sales trends;
- access to applicable credit markets by us, our customers and their end customers;
- delays or reductions in customer purchases of our products in anticipation of the introduction of new and enhanced products by us or our competitors;
- our ability to control expenses;
- the level of capital spending of our customers;
- potential excess and/or obsolescence of our inventory;
- costs and timing of adhering to current and developing governmental regulations and reviews relating to our products and business;
- costs related to acquisitions of technology or businesses;
- impairment of goodwill, intangible assets and other long-lived assets;
- our ability to meet our expectations and forecasts and those of public market analysts and investors;
- the availability of research funding by governments with regard to our customers in the scientific business, such as universities;
- continued government spending on defense-related and scientific research projects where we are a subcontractor;
- maintenance of supply relating to products sold to the government on terms which we would prefer not to accept;
- changes in policy, interpretations, or challenges to the allowability of costs incurred under government cost accounting standards;
- damage to our reputation as a result of coverage in social media, Internet blogs or other media outlets;
- managing our and other parties' compliance with contracts in multiple languages and jurisdictions;
- managing our internal and third party sales representatives and distributors, including compliance with all applicable laws;
- impact of government economic policies on macroeconomic conditions;

- costs and expenses from litigation;
- costs associated with designing around or payment of licensing fees associated with issued patents in our fields of business;
- government support of alternative energy industries, such as solar;
- negative impacts related to the "Brexit" vote by the United Kingdom, particularly with regard to sales from our Glasgow, Scotland facility to other jurisdictions and purchases of supplies from outside the United Kingdom by such facility;
- the future impact of legislation, rulemaking, and changes in accounting, tax, defense procurement, trade or export policies; and
- distraction of management related to acquisition, integration or divestment activities.

In addition, we often recognize a substantial portion of our sales in the last month of our fiscal quarters. Our expenses for any given quarter are typically based on expected sales and if sales are below expectations in any given quarter, the adverse impact of the shortfall on our operating results may be magnified by our inability to adjust spending quickly enough to compensate for the shortfall. We also base our manufacturing on our forecasted product mix for the quarter. If the actual product mix varies significantly from our forecast, we may not be able to fill some orders during that quarter, which would result in delays in the shipment of our products. Accordingly, variations in timing of sales, particularly for our higher priced, higher margin products, can cause significant fluctuations in quarterly operating results.

Due to these and other factors, such as varying product mix, we believe that quarter-to-quarter and year-to-year comparisons of our historical operating results may not be meaningful. You should not rely on our results for any quarter or year as an indication of our future performance. Our operating results in future quarters and years may be below public market analysts' or investors' expectations, which would likely cause the price of our stock to fall. In addition, over the past several years, U.S. and global equity markets have experienced significant price and volume fluctuations that have affected the stock prices of many technology companies both in and outside our industry. There has not always been a direct correlation between this volatility and the performance of particular companies subject to these stock price fluctuations. These factors, as well as general economic and political conditions or investors' concerns regarding the credibility of corporate financial statements, may have a material adverse effect on the market price of our stock in the future.

We depend on sole source or limited source suppliers, both internal and external, for some of our key components and materials, including exotic materials, certain cutting-edge optics and crystals, in our products, which make us susceptible to supply shortages or price fluctuations that could adversely affect our business, particularly our ability to meet our customers' delivery requirements.

We currently purchase several key components and materials used in the manufacture of our products from sole source or limited source suppliers, both internal and external. In particular, from time-to-time our customers require us to ramp up production and/or accelerate delivery schedules of our products. Our key suppliers may not have the ability to increase their production in line with our customers' demands. This can become acute during times of high growth in our customers' businesses. Our failure to timely receive these key components and materials would likely cause delays in the shipment of our products, which would likely negatively impact both our customers and our business. Some of these suppliers are relatively small private companies that may discontinue their operations at any time and which may be particularly susceptible to prevailing economic conditions. Some of our suppliers are located in regions which may be susceptible to natural disasters, such as the flooding in Thailand and the earthquake, tsunami and resulting nuclear disaster in Japan and severe flooding and power loss in the Eastern part of the United States in recent years. We typically purchase our components and materials through purchase orders or agreed upon terms and conditions and we do not have guaranteed supply arrangements with many of these suppliers. For certain long-lead time supplies or in order to lock-in pricing, we may be obligated to place purchase orders which are not cancelable or otherwise assume liability for a large amount of the ordered supplies, which limit our ability to adjust down our inventory liability in the event of market downturns or other customer cancellations or rescheduling of their purchase orders for our products. Some of our products, particularly in the flat panel display industry, require designs and specifications which are at the cutting-edge of available technologies. Our and our customers' designs and specifications frequently change to meet rapidly evolving market demands. Accordingly certain of our products require components and supplies which may be technologically difficult and unpredictable to manufacture. By their very nature, these types of components may only be available by a single supplier. These characteristics further pressure the timely delivery of such components. We may fail to obtain these supplies in a timely manner in the future. We may experience difficulty identifying alternative sources of supply for certain components used in our products and may have to incur expenses and management distraction in assisting our current and future suppliers to meet our and our customers' technical requirements. We would experience further delays while identifying, evaluating and testing the products of these potential alternative suppliers. Furthermore, financial or other difficulties faced by these suppliers or significant changes in demand for these components or materials could limit their availability. We continue to consolidate our supply base and move supplier locations. When we transition locations we may increase our inventory of such products as a "safety stock" during the transition, which may cause the amount of inventory reflected on our balance sheet to increase. Additionally, many of our customers rely on sole source suppliers. In the event of a disruption of our customers' supply chain, orders from our customers could decrease or be delayed.

Any interruption or delay in the supply of any of these components or materials, or the inability to obtain these components and materials from alternate sources at acceptable prices and within a reasonable amount of time, or our failure to properly manage these moves, would impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders. We have historically relied exclusively on our own production capability to manufacture certain strategic components, crystals, semiconductor lasers, fiber, lasers and laser-based systems and recently acquired the capability to manufacture certain large format optics. Because we manufacture, package and test these components, products and systems at our own facilities, and such components, products and systems are not readily available from other sources, any interruption in manufacturing would adversely affect our business. Since many of our products have lengthy qualification periods, our ability to introduce multiple suppliers for parts may be limited. In addition, our failure to achieve adequate manufacturing yields of these items at our manufacturing facilities may materially and adversely affect our operating results and financial condition.

We participate in the microelectronics market, which requires significant research and development expenses to develop and maintain products and a failure to achieve market acceptance for our products could have a significant negative impact on our business and results of operations.

The microelectronics market is characterized by rapid technological change, frequent product introductions, the volatility of product supply and demand, changing customer requirements and evolving industry standards. The nature of this market requires significant research and development expenses to participate, with substantial resources invested in advance of material sales of our products to our customers in this market. Additionally, our product offerings may become obsolete given the frequent introduction of alternative technologies. In the event either our customers' or our products fail to gain market acceptance, or the microelectronics market fails to grow, it would likely have a significant negative effect on our business and results of operations.

We participate in the flat panel display market, which has a relatively limited number of end customer manufacturers. Our backlog, timing of net sales and results of operations could be negatively impacted in the event our customers reschedule or cancel orders.

In the flat panel display market, there are a relatively limited number of manufacturers who are the end customers for our annealing products. In the first, second and third quarters of fiscal 2017, Advanced Process Systems Corporation, an integrator in the flat panel display market based in South Korea, contributed more than 10% of our revenue. Given macroeconomic conditions, varying consumer demand and technical process limitations at manufacturers, our customers may seek to reschedule or cancel orders. These larger flat panel-related systems have large average selling prices. Any rescheduling or canceling of such orders by our customers will likely have a significant impact on our quarterly or annual net sales and results of operations and could negatively impact inventory values and backlog. Additionally, challenges in meeting evolving technological requirements for these complex products by us and our suppliers could also result in delays in shipments, rescheduled or canceled orders by our customers. This could negatively impact our backlog, timing of net sales and results of operations.

As of July 1, 2017, flat panel display systems represented 60% of our backlog. Since our backlog includes higher average selling price flat panel display systems, any delays or cancellation of shipments could have a material adverse effect on our financial results.

Some of our laser systems are complex in design and may contain defects that are not detected until deployed by our customers, which could increase our costs and reduce our net sales.

Lasers and laser systems are inherently complex in design and require ongoing regular maintenance. The manufacture of our lasers, laser products and systems involves a highly complex and precise process. As a result of the technological complexity of our products, in particular our excimer laser annealing tools (ELA) used in the flat panel display market, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve and maintain our projected yields or product reliability, our business, operating results, financial condition and customer relationships would be adversely affected. We provide warranties on a majority of our product sales, and reserves for estimated warranty costs are recorded during the period of sale. The determination of such reserves requires us to make estimates of failure rates and expected costs to repair or replace the products under warranty. We typically establish warranty reserves based on historical warranty costs for each product line. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods which could have an adverse effect on our results of operations.

Our customers may discover defects in our products after the products have been fully deployed and operated, including under the end user's peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. As a result, should problems occur, it may be difficult to identify the source of the problem. If we are unable to identify and fix defects or other problems, we could experience, among other things:

- loss of customers or orders;
- increased costs of product returns and warranty expenses;
- damage to our brand reputation;
- failure to attract new customers or achieve market acceptance;
- diversion of development, engineering and manufacturing resources; and
- legal actions by our customers and/or their end users.

The occurrence of any one or more of the foregoing factors could seriously harm our business, financial condition and results of operations.

Continued volatility in the advanced packaging and semiconductor manufacturing markets could adversely affect our business, financial condition and results of operations.

A portion of our net sales in the microelectronics market depends on the demand for our products by advanced packaging applications and semiconductor equipment companies. These markets have historically been characterized by sudden and severe cyclical variations in product supply and demand, which have often severely affected the demand for semiconductor manufacturing equipment, including laser-based tools and systems. The timing, severity and duration of these market cycles are difficult to predict, and we may not be able to respond effectively to these cycles. The continuing uncertainty in these markets severely limits our ability to predict our business prospects or financial results in these markets.

During industry downturns, our net sales from these markets may decline suddenly and significantly. Our ability to rapidly and effectively reduce our cost structure in response to such downturns is limited by the fixed nature of many of our expenses in the near term and by our need to continue our investment in next-generation product technology and to support and service our products. In addition, due to the relatively long manufacturing lead times for some of the systems and subsystems we sell to these markets, we may incur expenditures or purchase raw materials or components for products we cannot sell. Accordingly, downturns in the semiconductor capital equipment market may materially harm our operating results. Conversely, when upturns in these markets occur, we must be able to rapidly and effectively increase our manufacturing capacity to meet increases in customer demand that may be extremely rapid, and if we fail to do so we may lose business to our competitors and our relationships with our customers may be harmed.

We are exposed to risks associated with worldwide economic conditions and related uncertainties which could negatively impact demand for our products and results of operations.

Volatility and disruption in the capital and credit markets, depressed consumer confidence, government economic policies, negative economic conditions, volatile corporate profits and reduced capital spending could negatively impact demand for our products. In particular, it is difficult to develop and implement strategy, sustainable business models and efficient operations, as well as effectively manage supply chain relationships in the face of such conditions including uncertainty regarding the ability of some of our suppliers to continue operations and provide us with uninterrupted supply flow. Our ability to maintain our research and development investments in our broad product offerings may be adversely impacted in the event that our sales decline and do not increase in the future. Spending and the timing thereof by consumers and businesses have a significant impact on our results and, where such spending is delayed or canceled, it could have a material negative impact on our operating results. Current global economic conditions remain uncertain and challenging. Weakness in our end markets could negatively impact our net sales, gross margin and operating expenses, and consequently have a material adverse effect on our business, financial condition and results of operations.

Uncertainty in global fiscal policy has likely had an adverse impact on global financial markets and overall economic activity in recent years. Should this uncertain financial policy recur, it would likely negatively impact global economic activity. Any weakness in global economies would also likely have negative repercussions on U.S. and global credit and financial markets, and further exacerbate sovereign debt concerns in the European Union. All of these factors would likely adversely impact the global demand for our products and the performance of our investments, and would likely have a material adverse effect on our business, results of operations and financial condition.

The financial turmoil that has affected the banking system and financial markets in recent years could result in tighter credit markets, and lower levels of liquidity in some financial markets. There could be a number of follow-on effects from a tightened credit environment on our business, including the insolvency of key suppliers or their inability to obtain credit to finance development and/or manufacture products resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and failure of financial institutions negatively impacting our treasury functions. In the event our customers are unable to obtain credit or otherwise pay for our shipped products it could significantly impact our ability to collect on our outstanding accounts receivable. Other income and expense also could vary materially from expectations depending on gains or losses realized on the sale or exchange of financial instruments; impairment charges resulting from revaluations of debt and equity securities and other investments; interest rates; cash balances; and changes in fair value of derivative instruments. Volatility in the financial markets and any overall economic uncertainty increase the risk that the actual amounts realized in the future on our financial instruments could differ significantly from the fair values currently assigned to them. Uncertainty about current global economic conditions could also continue to increase the volatility of our stock price.

In addition, political and social turmoil related to international conflicts, terrorist acts, civil unrest and mass migration may put further pressure on economic conditions in the United States and the rest of the world. Unstable economic, political and social conditions make it difficult for our customers, our suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition and results of operations could suffer. Additionally, unstable economic conditions can provide significant pressures and burdens on individuals, which could cause them to engage in inappropriate business conduct. See “Part I, Item 4. CONTROLS AND PROCEDURES.”

Our cash and cash equivalents and short-term investments are managed through various banks around the world and volatility in the capital and credit market conditions could cause financial institutions to fail or materially harm service levels provided by such banks, both of which could have an adverse impact on our ability to timely access funds.

World capital and credit markets have been and may continue to experience volatility and disruption. In some cases, the markets have exerted downward pressure on stock prices and credit capacity for certain issuers, as well as pressured the solvency of some financial institutions. These financial institutions, including banks, have had difficulty timely performing regular services and in some cases have failed or otherwise been largely taken over by governments. We maintain our cash, cash equivalents and short-term investments with a number of financial institutions around the world. Should some or all of these financial institutions fail or otherwise be unable to timely perform requested services, we would likely have a limited ability to timely access our cash deposited with such institutions, or, in extreme circumstances the failure of such institutions could cause us to be unable to access cash for the foreseeable future. If we are unable to quickly access our funds when we need them, we may need to increase the use of our existing credit lines or access more expensive credit, if available. If we are unable to access our cash or if we access existing or additional credit or are unable to access additional credit, it could have a negative impact on our operations, including our reported net income. In addition, the willingness of financial institutions to continue to accept our cash deposits will impact our ability to diversify our investment risk among institutions.

We are exposed to credit risk and fluctuations in the market values of our investment portfolio.

Although we have not recognized any material losses on our cash, cash equivalents and short-term investments, future declines in their market values could have a material adverse effect on our financial condition and operating results. Given the global nature of our business, we have investments both domestically and internationally. There has recently been growing pressure on the creditworthiness of sovereign nations, particularly in Europe where a significant portion of our cash, cash equivalents and short-term investments are invested, which results in corresponding pressure on the valuation of the securities issued by such nations. Additionally, our overall investment portfolio is often concentrated in government-issued securities such as U.S. Treasury securities and government agencies, corporate notes, commercial paper and money market funds. Credit ratings and pricing of these investments can be negatively impacted by liquidity, credit deterioration or losses, financial results, or other factors. Additionally, liquidity issues or political actions by sovereign nations could result in decreased values for our investments in certain government securities. As a result, the value or liquidity of our cash, cash equivalents and short-term investments could decline or become materially impaired, which could have a material adverse effect on our financial condition and operating results. See "Item 3. Quantitative and Qualitative Disclosures about Market Risk."

Our future success depends on our ability to increase our sales volumes and decrease our costs to offset potential declines in the average selling prices ("ASPs") of our products and, if we are unable to realize greater sales volumes and lower costs, our operating results may suffer.

Our ability to increase our sales volume and our future success depends on the continued growth of the markets for lasers, laser systems and related accessories, as well as our ability to identify, in advance, emerging markets for laser-based systems and to manage our manufacturing capacity to meet customer demands. We cannot assure you that we will be able to successfully identify, on a timely basis, new high-growth markets in the future. Moreover, we cannot assure you that new markets will develop for our products or our customers' products, or that our technology or pricing will enable such markets to develop. Future demand for our products is uncertain and will depend to a great degree on continued technological development and the introduction of new or enhanced products. If this does not continue, sales of our products may decline and our business will be harmed.

We have in the past experienced decreases in the ASPs of some of our products. As competing products become more widely available, the ASPs of our products may decrease. If we are unable to offset any decrease in our ASPs by increasing our sales volumes, our net sales will decline. In addition, to maintain our gross margins, we must continue to reduce the cost of manufacturing our products while maintaining their high quality. From time to time, our products, like many complex technological products, may fail in greater frequency than anticipated. This can lead to further charges, which can result in higher costs, lower gross margins and lower operating results. Furthermore, as ASPs of our current products decline, we must develop and introduce new products and product enhancements with higher margins. If we cannot maintain our gross margins, our operating results could be seriously harmed, particularly if the ASPs of our products decrease significantly.

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our current products address a broad range of commercial and scientific research applications in the photonics markets. We cannot assure you that the market for these applications will continue to generate significant or consistent demand for our products. Demand for our products could be significantly diminished by disrupting technologies or products that replace them or render them obsolete. Furthermore, the new and enhanced products in certain markets generally continue to be smaller in size and have lower ASPs, and therefore, we have to sell more units to maintain revenue levels. Accordingly, we must continue to invest in research and development in order to develop competitive products.

Our future success depends on our ability to anticipate our customers' needs and develop products that address those needs. Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing and coordinate our efforts with those of our suppliers to achieve volume production rapidly. If we fail to transfer production processes effectively, develop product enhancements or introduce new products in sufficient quantities to meet the needs of our customers as scheduled, our net sales may be reduced and our business may be harmed.

We face risks associated with our foreign operations and sales that could harm our financial condition and results of operations.

For the three and nine months ended July 1, 2017, 83.4% and 81.8%, respectively, of our net sales were derived from customers outside of the United States. For fiscal 2016, fiscal 2015 and fiscal 2014, 76%, 73%, and 74%, respectively, of our net sales were derived from customers outside of the United States. A majority of Rofin's sales have also been to customers outside of the United States in recent years. We anticipate that foreign sales, particularly in Asia, will continue to account for a significant portion of our net sales in the foreseeable future.

A global economic slowdown or a natural disaster could have a negative effect on various foreign markets in which we operate, such as the earthquake, tsunami and resulting nuclear disaster in Japan and the flooding in Thailand in recent years. Such a slowdown may cause us to reduce our presence in certain countries, which may negatively affect the overall level of business in such countries. Our foreign sales are primarily through our direct sales force. Additionally, some foreign sales are made through foreign distributors and representatives. Our foreign operations and sales are subject to a number of risks, including:

- longer accounts receivable collection periods;
- the impact of recessions and other economic conditions in economies outside the United States;
- unexpected changes in regulatory requirements;
- certification requirements;
- environmental regulations;
- reduced protection for intellectual property rights in some countries;
- potentially adverse tax consequences;
- political and economic instability;
- import/export regulations, tariffs and trade barriers;
- compliance with applicable United States and foreign anti-corruption laws;
- less than favorable contract terms;
- reduced ability to enforce contractual obligations;
- cultural and management differences;
- reliance in some jurisdictions on third party sales channel partners;
- preference for locally produced products; and
- shipping and other logistics complications.

Our business could also be impacted by international conflicts, terrorist and military activity including, in particular, any such conflicts on the Korean peninsula, civil unrest and pandemic illness which could cause a slowdown in customer orders, cause customer order cancellations or negatively impact availability of supplies or limit our ability to timely service our installed base of products.

We are also subject to the risks of fluctuating foreign currency exchange rates, which could materially adversely affect the sales price of our products in foreign markets, as well as the costs and expenses of our foreign subsidiaries. While we use forward exchange contracts and other risk management techniques to hedge our foreign currency exposure, we remain exposed to the economic risks of foreign currency fluctuations.

We may not be able to protect our proprietary technology which could adversely affect our competitive advantage.

Maintenance of intellectual property rights and the protection thereof is important to our business. We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. Our patent applications may not be approved, any patents that may be issued may not sufficiently protect our intellectual property and any issued patents may be challenged by third parties. Other parties may independently develop similar or competing technology or design around any patents that may be issued to us. We cannot be certain that the steps we have taken will prevent the misappropriation of our intellectual property, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. Further, we may be required to enforce our intellectual property or other proprietary rights through litigation, which, regardless of success, could result in substantial costs and diversion of management's attention. Additionally, there may be existing patents of which we are unaware that could be pertinent to our business and it is not possible for us to know whether there are patent applications pending that our products might infringe upon since these applications are often not publicly available until a patent is issued or published.

We may, in the future, be subject to claims or litigation from third parties, for claims of infringement of their proprietary rights or to determine the scope and validity of our proprietary rights or the proprietary rights of competitors or other rights

holders. These claims could result in costly litigation and the diversion of our technical and management personnel. Adverse resolution of litigation may harm our operating results or financial condition.

In recent years, there has been significant litigation in the United States and around the world involving patents and other intellectual property rights. This has been seen in our industry, for example in the concluded patent-related litigation between IMRA America, Inc. ("Imra") and IPG Photonics Corporation and in Imra's litigation against two of our German subsidiaries. From time to time, like many other technology companies, we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which such third parties believe may cover certain of our products, processes, technologies or information. In the future, we may be a party to litigation to protect our intellectual property or as a result of an alleged infringement of others' intellectual property whether through direct claims or by way of indemnification claims of our customers, as, in some cases, we contractually agree to indemnify our customers against third-party infringement claims relating to our products. These claims and any resulting lawsuit, if successful, could subject us to significant liability for damages or invalidation of our proprietary rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation could also force us to do one or more of the following:

- stop manufacturing, selling or using our products that use the infringed intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, although such license may not be available on reasonable terms, or at all; or
- redesign the products that use the technology.

If we are forced to take any of these actions or are otherwise a party to lawsuits of this nature, we may incur significant losses and our business may be seriously harmed. We do not have insurance to cover potential claims of this type.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under accounting principles generally accepted in the United States, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Factors that may be considered in determining whether a change in circumstances indicating that the carrying value of our goodwill or other intangible assets may not be recoverable include declines in our stock price and market capitalization or future cash flows projections. A decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we used to calculate the estimated fair value of our reporting units, could result in a change to the estimation of fair value that could result in an impairment charge. Any such material charges, whether related to goodwill or purchased intangible assets, may have a material negative impact on our financial and operating results.

We depend on skilled personnel to operate our business effectively in a rapidly changing market, and if we are unable to retain existing or hire additional personnel when needed, our ability to develop and sell our products could be harmed.

Our ability to continue to attract and retain highly skilled personnel will be a critical factor in determining whether we will be successful in the future. Recruiting and retaining highly skilled personnel in certain functions continues to be difficult. At certain locations where we operate, the cost of living is extremely high and it may be difficult to retain key employees and management at a reasonable cost. We may not be successful in attracting, assimilating or retaining qualified personnel to fulfill our current or future needs. Our failure to attract additional employees and retain our existing employees could adversely affect our growth and our business.

Our future success depends upon the continued services of our executive officers and other key engineering, sales, marketing, manufacturing and support personnel, any of whom may leave and our ability to effectively transition to their successors. Our inability to retain or to effectively transition to their successors could harm our business and our results of operations.

The long sales cycles for our products may cause us to incur significant expenses without offsetting net sales.

Customers often view the purchase of our products as a significant and strategic decision. As a result, customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them, resulting in a lengthy initial sales cycle. While our customers are evaluating our products and before they place an order with us, we may incur substantial sales and marketing and research and development expenses to customize our products to the customers' needs. We may also expend significant management efforts, increase manufacturing capacity and order long lead-time components or materials prior to receiving an order. Even after this evaluation process, a potential customer may not purchase our products. As a result, these long sales cycles may cause us to incur significant expenses without ever receiving net sales to offset such expenses.

The markets in which we sell our products are intensely competitive and increased competition could cause reduced sales levels, reduced gross margins or the loss of market share.

Competition in the various photonics markets in which we provide products is very intense. We compete against a number of large public and private companies, including CVI Melles Griot, Novanta Inc., IPG Photonics Corporation, Lumentum Holdings Inc., MKS Instruments, Inc. and Trumpf GmbH, as well as other smaller companies. Some of our competitors are large companies that have significant financial, technical, marketing and other resources. These competitors may be able to devote greater resources than we can to the development, promotion, sale and support of their products. Some of our competitors are much better positioned than we are to acquire other companies in order to gain new technologies or products that may displace our product lines. Any of these acquisitions could give our competitors a strategic advantage. Any business combinations or mergers among our competitors, forming larger companies with greater resources, could result in increased competition, price reductions, reduced margins or loss of market share, any of which could materially and adversely affect our business, results of operations and financial condition.

Additional competitors may enter the markets in which we serve, both foreign and domestic, and we are likely to compete with new companies in the future. We may encounter potential customers that, due to existing relationships with our competitors, are committed to the products offered by these competitors. Further, our current or potential customers may determine to develop and produce products for their own use which are competitive to our products. Such vertical integration could reduce the market opportunity for our products. As a result of the foregoing factors, we expect that competitive pressures may result in price reductions, reduced margins, loss of sales and loss of market share. In addition, in markets where there are a limited number of customers, competition is particularly intense.

If we fail to accurately forecast component and material requirements for our products, we could incur additional costs and incur significant delays in shipments, which could result in a loss of customers.

We use rolling forecasts based on anticipated product orders and material requirements planning systems to determine our product requirements. It is very important that we accurately predict both the demand for our products and the lead times required to obtain the necessary components and materials. We depend on our suppliers for most of our product components and materials. Lead times for components and materials that we order vary significantly and depend on factors including the specific supplier requirements, the size of the order, contract terms and current market demand for components. For substantial increases in our sales levels of certain products, some of our suppliers may need at least nine months lead-time. If we overestimate our component and material requirements, we may have excess inventory, which would increase our costs. If we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt and delay delivery of our products to our customers. Any of these occurrences would negatively impact our net sales, business or operating results.

Our reliance on contract manufacturing and outsourcing may adversely impact our financial results and operations due to our decreased control over the performance and timing of certain aspects of our manufacturing.

Our manufacturing strategy includes partnering with contract manufacturers to outsource non-core subassemblies and less complex turnkey products, including some performed at international sites located in Asia and Eastern Europe. Our ability to resume internal manufacturing operations for certain products and components in a timely manner may be eliminated. The cost, quality, performance and availability of contract manufacturing operations are and will be essential to the successful production and sale of many of our products. Our financial condition or results of operation could be adversely impacted if any contract manufacturer or other supplier is unable for any reason, including as a result of the impact of worldwide economic conditions, to meet our cost, quality, performance, and availability standards. We may not be able to provide contract manufacturers with product volumes that are high enough to achieve sufficient cost savings. If shipments fall below forecasted levels, we may incur increased costs or be required to take ownership of the inventory. Also, our ability to control the quality of products produced by contract manufacturers may be limited and quality issues may not be resolved in a timely manner, which could adversely impact our financial condition or results of operations.

If we fail to effectively manage our growth or, alternatively, our spending during downturns, our business could be disrupted, which could harm our operating results.

Growth in sales, combined with the challenges of managing geographically dispersed operations, can place a significant strain on our management systems and resources, and our anticipated growth in future operations could continue to place such a strain. The failure to effectively manage our growth could disrupt our business and harm our operating results. Our ability to successfully offer our products and implement our business plan in evolving markets requires an effective planning and management process. In economic downturns, we must effectively manage our spending and operations to ensure our competitive position during the downturn, as well as our future opportunities when the economy improves, remain intact. The failure to effectively manage our spending and operations could disrupt our business and harm our operating results.

Historically, acquisitions have been an important element of our strategy. However, we may not find suitable acquisition candidates in the future and we may not be able to successfully integrate and manage acquired businesses. Any acquisitions we make could disrupt our business and harm our financial condition.

We have in the past made strategic acquisitions of other corporations and entities, including Rofin in November 2016, as well as asset purchases, and we continue to evaluate potential strategic acquisitions of complementary companies, products and technologies. In the event of any future acquisitions, we could:

- issue stock that would dilute our current stockholders' percentage ownership;
- pay cash that would decrease our working capital;
- incur debt;
- assume liabilities; or
- incur expenses related to impairment of goodwill and amortization.

Acquisitions also involve numerous risks, including:

- problems combining the acquired operations, systems, technologies or products;
- an inability to realize expected operating efficiencies or product integration benefits;
- difficulties in coordinating and integrating geographically separated personnel, organizations, systems and facilities;
- difficulties integrating business cultures;
- unanticipated costs or liabilities, including the costs associated with improving the internal controls of the acquired company;
- diversion of management's attention from our core businesses;
- adverse effects on existing business relationships with suppliers and customers;
- potential loss of key employees, particularly those of the purchased organizations;
- incurring unforeseen obligations or liabilities in connection with acquisitions; and
- the failure to complete acquisitions even after signing definitive agreements which, among other things, would result in the expensing of potentially significant professional fees and other charges in the period in which the acquisition or negotiations are terminated.

We cannot assure you that we will be able to successfully identify appropriate acquisition candidates, to integrate any businesses, products, technologies or personnel that we might acquire in the future or achieve the anticipated benefits of such transactions, which may harm our business.

Our market is unpredictable and characterized by rapid technological changes and evolving standards demanding a significant investment in research and development, and, if we fail to address changing market conditions, our business and operating results will be harmed.

The photonics industry is characterized by extensive research and development, rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. Because this industry is subject to rapid change, it is difficult to predict its potential size or future growth rate. Our success in generating net sales in this industry will depend on, among other things:

- maintaining and enhancing our relationships with our customers;
- the education of potential end-user customers about the benefits of lasers and laser systems; and
- our ability to accurately predict and develop our products to meet industry standards.

For the three and nine months ended July 1, 2017, our research and development costs were $30.5 million (6.6% of net sales) and $88.1 million (7.1% of net sales), respectively. For our fiscal years 2016, 2015 and 2014, our research and development costs were $81.8 million (9.5% of net sales), $81.5 million (10.2% of net sales) and $79.1 million (10.0% of net sales), respectively. We cannot assure you that our expenditures for research and development will result in the introduction of new products or, if such products are introduced, that those products will achieve sufficient market acceptance or to generate sales to offset the costs of development. Our failure to address rapid technological changes in our markets could adversely affect our business and results of operations.

We are exposed to lawsuits in the normal course of business which could have a material adverse effect on our business, operating results, or financial condition.

We are exposed to lawsuits in the normal course of our business, including product liability claims, if personal injury, death or commercial losses occur from the use of our products. While we typically maintain business insurance, including directors' and officers' policies, litigation can be expensive, lengthy, and disruptive to normal business operations, including the potential impact of indemnification obligations for individuals named in any such lawsuits. We may not, however, be able to secure insurance coverage on terms acceptable to us in the future. Moreover, the results of complex legal proceedings are difficult to predict. An unfavorable resolution of a particular lawsuit, including a recall or redesign of products if ultimately determined to be defective, could have a material adverse effect on our business, operating results, or financial condition.

We use standard laboratory and manufacturing materials that could be considered hazardous and we could be liable for any damage or liability resulting from accidental environmental contamination or injury.

Although most of our products do not incorporate hazardous or toxic materials and chemicals, some of the gases used in our excimer lasers and some of the liquid dyes used in some of our scientific laser products are highly toxic. In addition, our operations involve the use of standard laboratory and manufacturing materials that could be considered hazardous. Also, if a facility fire were to occur at our Sunnyvale, California site and were to spread to a reactor used to grow semiconductor wafers, it could release highly toxic emissions. We believe that our safety procedures for handling and disposing of such materials comply with all federal, state and offshore regulations and standards. However, the risk of accidental environmental contamination or injury from such materials cannot be entirely eliminated. In the event of such an accident involving such materials, we could be liable for damages and such liability could exceed the amount of our liability insurance coverage and the resources of our business which could have an adverse effect on our financial results or our business as a whole.

Compliance or the failure to comply with current and future environmental regulations could cause us significant expense.

We are subject to a variety of federal, state, local and foreign environmental regulations relating to the use, storage, discharge and disposal of hazardous chemicals used during our manufacturing process or requiring design changes or recycling of products we manufacture. If we fail to comply with any present and future regulations, we could be subject to future liabilities, the suspension of production or a prohibition on the sale of products we manufacture. In addition, such regulations could restrict our ability to expand our facilities or could require us to acquire costly equipment, or to incur other significant expenses to comply with environmental regulations, including expenses associated with the recall of any non-compliant product and the management of historical waste.

From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. We continue to evaluate the necessary steps for compliance with regulations as they are enacted. These regulations include, for example, the Registration, Evaluation, Authorization and Restriction of Chemical substances (“REACH”), the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (“RoHS”) and the Waste Electrical and Electronic Equipment Directive (“WEEE”) enacted in the European Union which regulate the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, certain products we manufacture.

This and similar legislation that has been or is in the process of being enacted in Japan, China, South Korea and various states of the United States may require us to re-design our products to ensure compliance with the applicable standards, for example by requiring the use of different types of materials. These redesigns or alternative materials may detrimentally impact the performance of our products, add greater testing lead-times for product introductions or have other similar effects. We believe we comply with all such legislation where our products are sold and we will continue to monitor these laws and the regulations being adopted under them to determine our responsibilities. In addition, we are monitoring legislation relating to the reduction of carbon emissions from industrial operations to determine whether we may be required to incur any additional material costs or expenses associated with our operations. We are not currently aware of any such material costs or expenses. The SEC has promulgated rules requiring disclosure regarding the use of certain “conflict minerals” mined from the Democratic Republic of Congo and adjoining countries and procedures regarding a manufacturer's efforts to prevent the sourcing of such minerals. The implementation of such rules has required us to incur additional expense and internal resources and may continue to do so in the future, particularly in the event that only a limited pool of suppliers are available to certify that products are free from “conflict minerals.” Our failure to comply with any of the foregoing regulatory requirements or contractual obligations could result in our being directly or indirectly liable for costs, fines or penalties and third-party claims, and could jeopardize our ability to conduct business in the United States and foreign countries.

Our and our customers' operations would be seriously harmed if our logistics or facilities or those of our suppliers, our customers' suppliers or our contract manufacturers were to experience catastrophic loss.

Our operations, logistics and facilities and those of our customers, suppliers and contract manufacturers could be subject to a catastrophic loss from fire, flood, earthquake, volcanic eruption, work stoppages, power outages, acts of war, pandemic illnesses, energy shortages, theft of assets, other natural disasters or terrorist activity. A substantial portion of our research and development activities, manufacturing, our corporate headquarters and other critical business operations are located near major earthquake faults in Santa Clara, California, an area with a history of seismic events. Any such loss or detrimental impact to any of our operations, logistics or facilities could disrupt our operations, delay production, shipments and net sales and result in large expenses to repair or replace the facility. While we have obtained insurance to cover most potential losses, after reviewing the costs and limitations associated with earthquake insurance, we have decided not to procure such insurance. We believe that this decision is consistent with decisions reached by numerous other companies located nearby. We cannot assure you that our existing insurance coverage will be adequate against all other possible losses.

Difficulties with our enterprise resource planning (“ERP”) system and other parts of our global information technology system could harm our business and results of operation. If our network security measures are breached and unauthorized access is obtained to a customer's data or our data or our information technology systems, we may incur significant legal and financial exposure and liabilities.

Like many modern multinational corporations, we maintain a global information technology system, including software products licensed from third parties. Any system, network or Internet failures, misuse by system users, the hacking into or disruption caused by the unauthorized access by third parties or loss of license rights could disrupt our ability to timely and accurately manufacture and ship products or to report our financial information in compliance with the timelines mandated by the SEC. Any such failure, misuse, hacking, disruptions or loss would likely cause a diversion of management's attention from the underlying business and could harm our operations. In addition, a significant failure of our global information technology system could adversely affect our ability to complete an evaluation of our internal controls and attestation activities pursuant to Section 404 of the Sarbanes-Oxley Act of 2002.

Our information systems are subject to attacks, interruptions and failures.

As part of our day-to-day business, we store our data and certain data about our customers in our global information technology system. While our system is designed with access security, if a third party gains unauthorized access to our data, including any regarding our customers, such a security breach could expose us to a risk of loss of this information, loss of business, litigation and possible liability. Our security measures may be breached as a result of third-party action, including intentional misconduct by computer hackers, employee error, malfeasance or otherwise. Additionally, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information in order to gain access to our customers' data or our data, including our intellectual property and other confidential business information, or our information technology systems. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Any unauthorized access could result in a loss of confidence by our customers, damage our reputation, disrupt our business, lead to legal liability and negatively impact our future sales. Additionally, such actions could result in significant costs associated with loss of our intellectual property, impairment of our ability to conduct our operations, rebuilding our network and systems, prosecuting and defending litigation, responding to regulatory inquiries or actions, paying damages or taking other remedial steps.

Changes in tax rates, tax liabilities or tax accounting rules could affect future results.

As a global company, we are subject to taxation in the United States and various other countries and jurisdictions. Significant judgment is required to determine our worldwide tax liabilities. A number of factors may affect our future effective tax rates including, but not limited to:

- changes in our current and future global structure based on the Rofin acquisition and restructuring that involved significant movement of U.S. and foreign entities and our ability to maintain favorable tax treatment as a result of various Rofin restructuring efforts and business activities;
- change in the assessment of the ability to recognize our deferred tax assets and change in the valuation of our deferred tax liabilities;
- the outcome of discussions with various tax authorities regarding intercompany transfer pricing arrangements;
- changes that involve other acquisitions or restructuring or an increased investment in technology outside of the United States to better align asset ownership and business functions with revenues and profits;
- changes in the composition of earnings in countries or states with differing tax rates;
- the resolution of issues arising from tax audits with various tax authorities, and in particular, the outcome of the German tax audits of our tax returns for fiscal years 2011 - 2014 and the U.S. tax audit of our tax return for fiscal year 2013;
- adjustments to estimated taxes upon finalization of various tax returns;
- increases in expenses not deductible for tax purposes, including impairments of goodwill in connection with acquisitions;
- our ability to meet the eligibility requirements for tax holidays of limited time tax-advantage status;
- changes in available tax credits;
- changes in share-based compensation;
- changes in the tax laws or the interpretation of such tax laws, including the Base Erosion Profit Shifting (“BEPS”) project being conducted by the Organization for Economic Co-operation and Development (“OECD”);
- changes in generally accepted accounting principles; and
- the repatriation of non-U.S. earnings for which we have not previously provided for U.S. taxes.

As indicated above, we are engaged in discussions with various tax authorities regarding the appropriate level of profitability for Coherent entities and this may result in changes to our worldwide tax liabilities. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service (“IRS”) and other tax authorities. From time to time the United States, foreign and state governments make substantive changes to tax rules and the application of rules to companies, including various announcements from the United States government potentially impacting our ability to defer taxes on international earnings. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different than the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our operating results and financial condition.

Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty regarding compliance matters.

Federal securities laws, rules and regulations, as well as the rules and regulations of self-regulatory organizations such as NASDAQ and the NYSE, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers and directors for securities law violations. These laws, rules and regulations have increased and will continue to increase the scope, complexity and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations. Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty regarding compliance matters. New or changed laws, regulations and standards are subject to varying interpretations in many cases. As a result, their application in practice may evolve over time. We are committed to maintaining high standards of ethics, corporate governance and public disclosure. Complying with evolving interpretations of new or changed legal requirements may cause us to incur higher costs as we revise current practices, policies and procedures, and may divert management time and attention from revenue generating to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, our reputation may also be harmed.

Governmental regulations, including duties, affecting the import or export of products could negatively affect our net sales.

The United States and many foreign governments impose tariffs and duties on the import and export of products, including some of those which we sell. In particular, given our worldwide operations, we pay duties on certain products when they are imported into the United States for repair work as well as on certain of our products which are manufactured by our foreign subsidiaries. These products can be subject to a duty on the product value. Additionally, the United States and various foreign governments have imposed tariffs, controls, export license requirements and restrictions on the import or export of some technologies, especially encryption technology. From time to time, government agencies have proposed additional regulation of encryption technology, such as requiring the escrow and governmental recovery of private encryption keys. Governmental regulation of encryption technology and regulation of imports or exports, or our failure to obtain required import or export approval for our products, could harm our international and domestic sales and adversely affect our net sales. From time to time our duty calculations and payments are audited by government agencies. For example, we were audited in South Korea for customs duties and value-added-tax for the period March 2009 to March 2014. We were liable for additional payments, duties, taxes and penalties of $1.6 million, which we paid in the second quarter of fiscal 2016. Any future assessments could have a material adverse effect on our business or financial position, results of operations, or cash flows.

In addition, compliance with the directives of the Directorate of Defense Trade Controls (“DDTC”) may result in substantial expenses and diversion of management. Any failure to adequately address the directives of DDTC could result in civil fines or suspension or loss of our export privileges, any of which could have a material adverse effect on our business or financial position, results of operations, or cash flows.

Failure to maintain effective internal controls may cause a loss of investor confidence in the reliability of our financial statements or to cause us to delay filing our periodic reports with the SEC and adversely affect our stock price.

The SEC, as directed by Section 404 of the Sarbanes-Oxley Act of 2002, adopted rules requiring public companies to include a report of management on internal control over financial reporting in their annual reports on Form 10-K that contain an assessment by management of the effectiveness of our internal control over financial reporting. In addition, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although we test our internal control over financial reporting in order to ensure compliance with the Section 404 requirements, our failure to maintain adequate internal controls over financial reporting could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements or a delay in our ability to timely file our periodic reports with the SEC, which ultimately could negatively impact our stock price.

Provisions of our charter documents and Delaware law, and our Change-of-Control Severance Plan may have anti-takeover effects that could prevent or delay a change in control.

Provisions of our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition or make removal of incumbent directors or officers more difficult. These provisions may discourage takeover attempts and bids for our common stock at a premium over the market price. These provisions include:

- the ability of our Board of Directors to alter our bylaws without stockholder approval;
- limiting the ability of stockholders to call special meetings; and

- establishing advance notice requirements for nominations for election to our Board of Directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a publicly-held Delaware corporation from engaging in a merger, asset or stock sale or other transaction with an interested stockholder for a period of three years following the date such person became an interested stockholder, unless prior approval of our board of directors is obtained or as otherwise provided. These provisions of Delaware law also may discourage, delay or prevent someone from acquiring or merging with us without obtaining the prior approval of our board of directors, which may cause the market price of our common stock to decline. In addition, we have adopted a change of control severance plan, which provides for the payment of a cash severance benefit to each eligible employee based on the employee's position. If a change of control occurs, our successor or acquirer will be required to assume and agree to perform all of our obligations under the change of control severance plan which may discourage potential acquirers or result in a lower stock price.

ITEM 6. EXHIBITS

Exhibit No.	Description
10.1	Amendment No. 1 and Waiver to Credit Agreement, dated as of May 8, 2017, by and among Coherent, Inc., Coherent Holding GmbH, the Guarantors party thereto, the Lenders party thereto and Barclays Bank PLC, as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 9, 2017).
10.2	Amendment No. 2 to Credit Agreement, dated as of July 5, 2017, by and among Coherent, Inc., Coherent Holding GmbH, the Guarantors party thereto and Barclays Bank PLC as Administrative Agent.
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief 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 Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
101.LAB*	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase

COHERENT, INC.

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.

Coherent, Inc.
(Registrant)

Date: August 9, 2017	/s/: JOHN R. AMBROSEO John R. Ambroseo President and Chief Executive Officer (Principal Executive Officer)
Date: August 9, 2017	/s/: KEVIN PALATNIK Kevin Palatnik Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)

EXHIBIT INDEX

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AMENDMENT NO. 2 TO CREDIT AGREEMENT

This Amendment No. 2 to Credit Agreement, dated as of July 5, 2017 (this "Amendment") to that certain Credit Agreement, dated as of November 7, 2016 (as amended as of May 8, 2017 by that certain Amendment No.1 and Waiver to Credit Agreement, the "Credit Agreement"), among COHERENT, INC., a Delaware corporation (the "Parent"), COHERENT HOLDING GMBH, a German company with limited liability (the "Borrower"), the Guarantors from time to time party thereto, BARCLAYS BANK PLC, as administrative agent (the "Administrative Agent") and as an L/C Issuer, BANK OF AMERICA, N.A., as an L/C Issuer, MUFG UNION BANK, N.A., as an L/C Issuer, and the financial institutions from time to time party thereto as lenders (in such capacity, the "Lenders"), is entered into by and among Parent, Borrower, COHERENT EUROPE B.V., a company incorporated as a *belsloten vennootschap met beperkte aansprakelijkheid* under the laws of the Netherlands ("EBV"), ROFIN-SINAR TECHNOLOGIES EUROPE, S.L., a company validly incorporated and duly existing under the laws of Spain ("RS Spain"), COHERENT DUTCH MERGER SUB B.V., a company incorporated as a *besloten vennootschap met beperkte aansprakelijkheid* under the laws of the Netherlands ("Dutch Merger Sub"), the other Guarantors and the Administrative Agent. Capitalized terms used herein but not defined herein are used as defined in the Credit Agreement.

W I T N E S S E T H:

WHEREAS, EBV and RS Spain pledged their respective interests in the outstanding shares of the Borrower in favor of the Administrative Agent, for the benefit of the Secured Parties to secure certain Obligations pursuant to that certain (i) Share Pledge Agreement, dated as of November 7, 2016, by and between EBV, the Borrower and Barclays Bank PLC, as administrative agent and collateral agent under the Loan Documents (in such capacity, the "Agent"); (ii) Amended Share Pledge Agreement, dated as of December 27, 2016, by and among, EBV, RS Spain, the Borrower and the Agent; and (iii) Confirmation and Junior Ranking Share Pledge Agreement, dated as of May 8, 2017, by and among EBV, RS Spain, the Borrower and the Agent (collectively, the "Equity Pledge Agreements");

WHEREAS, Coherent, Inc., acting in its capacity as general partner (*beherend vennoot*) and in the name and for the account of COHR International Trading C.V., a limited partnership (*commanditaire vennootschap*) formed under the laws of the Netherlands ("CV2"), pledged its shares of Dutch Merger Sub in favor of the Administrative Agent, for the benefit of the Secured Parties to secure the Obligations pursuant to that certain deed of pledge of shares dated as of 7 November 2016;

WHEREAS, EBV, RS Spain and Dutch Merger Sub desire to enter into an agreement (the "Conversion Agreement") providing for, *inter alia*, the conversion (the "Conversion") of the legal form of the Borrower from a German company with limited liability to a Germany limited partnership (the Borrower, after giving effect to the Conversion, the "KG Borrower");

WHEREAS, as an interim step, the Conversion Agreement contemplates that EBV will transfer fifty shares in the Borrower in a nominal amount of €50.00 (the "Trust Shares") to Dutch Merger Sub to be held by it in trust for EBV (the "Trust");

WHEREAS, upon completion of the steps contemplated by the Conversion Agreement and the registration of the conversion with the competent commercial register (*Handelsregister*) of the local court (*Amtsgericht*) Darmstadt, Germany, (i) the Conversion will be completed, (ii) EBV and RS Spain will be the limited partners of the KG Borrower with capital interests in the KG Borrower, and (iii) Dutch Merger Sub will be the general partner of KG Borrower without a capital interest in the KG Borrower;

WHEREAS, the Conversion Agreement and the steps contemplated thereby are pursuant to, and within the definition of, the Post-Closing Reorganization; and

WHEREAS, Section 11.01 of the Credit Agreement authorizes the Administrative Agent and the Borrower and the applicable Loan Parties party to the Credit Agreement to amend the Credit Agreement to permit the Post-Closing Reorganization; provided that the Required Lenders do not object in writing to such amendment within 10 Business Days of receipt of notice thereof.

NOW, THEREFORE, in consideration of the premises and agreements, provisions and covenants herein contained, the parties hereto agree as follows:

Section 1. AMENDMENTS TO THE CREDIT AGREEMENT

Effective as of the Second Amendment Effective Date and subject to the satisfaction (or waiver) of the conditions set forth in Section 2 below, the Credit Agreement is hereby amended as follows:

1.1 The following definitions of "Second Amendment" and "Second Amendment Effect Date" shall hereby be inserted into Section 1.01 of the Credit Agreement in the correct alphabetical order:

> ""Second Amendment": Amendment No. 2, dated as of July 5, 2017, among the Parent, the Borrower, the Guarantors party thereto and the Administrative Agent.""

> ""Second Amendment Effective Date": as defined in the Second Amendment.""

1.1 Section 7.21 of the Credit Agreement is hereby amended by adding the following clause (c) immediately after clause (b) thereof:

> "(c) In connection with the Conversion Agreement (as such term is defined in the Second Amendment) and the steps contemplated thereby, the Loan Parties shall deliver, or cause to be delivered, the items set forth in Section 4 of the Second Amendment on or prior to the dates set forth therein and such items shall constitute all of the actions required to be taken and items to be delivered by the Loan Parties under this Agreement and the other Loan Documents in respect of or as a result of the Conversion Agreement (as such term is defined in the Second Amendment) and the steps contemplated thereby, and all representations, warranties and covenants contained in this Agreement (including the obligations under Section 7.14) and the other Loan Documents shall be deemed modified to so limit the actions and deliverables."

1.2 Section 8.09(a) of the Credit Agreement is hereby amended by deleting clause (13) in its entirety and inserting the below clauses (13) and (14) at the end of Section 8.09(a):

> "(13) Contractual Obligations contemplated by or pursuant to the Post-Closing Reorganization; and

> (14) any encumbrances or restrictions of the type referred to in clauses (a)(i) through (iv) above imposed by any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of, or similar arrangements to, the contracts, instruments or obligations referred to in clauses (1) through (13) above."

1.3 Section 8.09(b) of the Credit Agreement is hereby amended by deleting clause (13) in its entirety and inserting the below clauses (13) and (14) at the end of Section 8.09(b):

"(13) Contractual Obligations contemplated by or pursuant to the Post-Closing Reorganization; and

(14) any encumbrances or restrictions imposed by any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of, or similar arrangements to, the contracts, instruments or obligations referred to in clauses (1) through (13) above."

SECTION 2. CONDITIONS PRECEDENT

This Amendment shall be effective (the "Second Amendment Effective Date") on the date that the following conditions precedent having been satisfied or duly waived:

2.1 **Executed Agreement**. The Administrative Agent shall have received this Amendment, duly executed by each of the Parent, the Borrower, the Guarantors and the Administrative Agent.

2.2 **Fees and Other Amounts**. The Parent shall have paid in full in immediately available funds on the Second Amendment Effective Date all fees and reimbursable expenses that have been invoiced at least one Business Day prior to the Second Amendment Effective Date that are due and payable to the Administrative Agent in connection herewith.

2.3 **Representations and Warranties**. Each of the representations and warranties contained in Section 3 below shall be true and correct.

2.4 **USA Patriot Act**. The Administrative Agent shall have received from each of the Loan Parties documentation and other information required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the USA Patriot Act, to the extent such documentation or other information has been requested in writing at least five Business Days prior to the Amendment Effective Date.

2.5 **Waiver of Requirement to Provide Notices**. This Amendment is deemed to be notice of any requirements under Section 7 and/or 8 (as applicable) of the Equity Pledge Agreements in respect of the steps contemplated by the Conversion Agreement.

SECTION 3. REPRESENTATIONS AND WARRANTIES

Each of Parent and the Borrower, on behalf of itself and each Loan Party, hereby represents and warrants to the Administrative Agent, the L/C Issuers and each Lender, with respect to all Loan Parties, as follows:

3.1 **Incorporation of Representations and Warranties from Loan Documents**. After giving effect to this Amendment, each of the representations and warranties in Article VI of the Credit Agreement and in the other Loan Documents are true and correct in all material respects (except to the extent that such representation or warranty is qualified as to materiality, in which case it shall be true and correct in all respects) on and as of the date hereof as though made on and as of such date, except to the extent that any such representation or warranty expressly relates to an earlier date.

3.2 **Corporate Power and Authority**. Each Loan Party party hereto has (a) the corporate or other power and authority to make, deliver and perform the Amendment and the other Loan Documents to which it is a party and (b) taken all necessary corporate or other action to authorize the execution, delivery and performance of this Amendment and the other Loan Documents to which it is a party.

3.3 **Absence of Default**. Neither the Parent, the Borrower nor any of its Restricted Subsidiaries is in violation of any Requirement of Law or Contractual Obligation that could reasonably be expected to have a Material Adverse Effect. At the time of and immediately after giving effect to this Amendment, no Default or Event of Default has occurred and is continuing.

SECTION 4. COVENANTS

Notwithstanding anything to the contrary in the Credit Agreement or the Loan Documents, the following shall constitute the only documents required to be delivered by the Loan Parties in connection with the Conversion Agreement and the steps contemplated thereby:

4.1 **Pledge Confirmation**. Within 30 days of the Conversion (or such longer period as the Administrative Agent may agree in its reasonable discretion), EBV, RS Spain and the Administrative Agent shall execute and deliver a pledge confirmation in respect of the Equity Pledge Agreements (which pledge confirmation shall exclude the general partnership interest in the KG Borrower owned by Dutch Merger Sub after giving effect to the Conversion and all Ancillary Rights (as defined in each of the Equity Pledge Agreements) and any other ancillary rights or other rights, in each case, pertaining to such general partnership interest (collectively, the "Released Collateral Rights"), in substantially the form attached hereto as Exhibit A.

4.2 **Partnership Interest Pledge Agreement**. Within 30 days of the Conversion (or such longer period as the Administrative Agent may agree in its reasonable discretion), EBV, RS Spain, Dutch Merger Sub and the Administrative Agent shall execute and deliver a pledge agreement pursuant to which EBV and RS Spain shall pledge their respective limited partnership interests in the KG Borrower and Dutch Merger Sub shall pledge its general partnership interest in the KG Borrower and the Administrative Agent shall release all pledges created under the Existing Pledge Agreements over the Released Collateral Rights, in substantially the form attached hereto as Exhibit B.

4.3 **Deed of Pledge of Shares**. Within 30 days of the later of the Conversion and the contribution of all issued shares of Dutch Merger Sub (the "Contribution Shares") by CV2 to EBV as a result of or in connection with the Conversion (or such longer period as the Administrative Agent may agree in its reasonable discretion), EBV, Dutch Merger Sub and the Administrative Agent shall execute and deliver a deed of pledge of shares pursuant to which EBV shall pledge the Contribution Shares to the Administrative Agent, in substantially the form attached hereto as Exhibit C.

4.4 **Certain Other Documents.** Within 30 days of the Conversion (or such longer period as the Administrative Agent may agree in its reasonable discretion), and in any case together with the pledge confirmation pursuant to Section 4.1 above, the partnership interest pledge agreement pursuant to Section 4.2 above and the deed of pledge of shares pursuant to Section 4.3 above, the Borrower shall deliver each of the following, in form and substance reasonably satisfactory to the Administrative Agent:

(a) resolutions of the sole shareholder of RS Spain and resolutions of the board of directors of EBV and RS Spain approving, *inter alia*, the terms of, the performance under, and the transactions contemplated by the pledge confirmation pursuant to Section 4.1 above;

(b) resolutions of the sole shareholder of RS Spain and Dutch Merger Sub and resolutions of the board of directors of EBV, RS Spain and Dutch Merger Sub approving, *inter alia*, the terms of, the performance under, and the transactions contemplated by the partnership pledge agreement pursuant to Section 4.2 above;

(c) resolutions of the sole shareholder of Dutch Merger Sub and resolutions of the board of directors of Dutch Merger Sub and EBV approving, *inter alia*, the terms of, the performance under, and the transactions contemplated by the pledge of shares pursuant to Section 4.3 above; and

(d) an executed legal opinion of CMS Hasche Sigle Partnerschaft von Rechtsanwälten und Steuerberatern mbB, counsel to the Borrower, in form and substance reasonably acceptable to the Administrative Agent.

4.5 **Spain.** Within 10 Business Days after the Amendment Effective Date (or such longer period as the Administrative Agent may agree in its sole discretion), the Borrower shall, or shall cause the applicable Loan Party to, deliver to the Administrative Agent (or cause, as applicable) each of the following, in form and substance reasonably satisfactory to the Administrative Agent:

(a) Notarization of the Amendment before a Notary Public in Spain; and

(b) Ratification and extension of the following Spanish Security Documents: (i) pledge granted by ROFIN-SINAR TECHNOLOGIES, INC over the quotas of Rofin-Sinar Technologies Europe, S.L. and (ii) pledges granted by ROFINSINAR TECHNOLOGIES EUROPE, S.L. over (1) credit rights derived from bank accounts, (2) quotas of ROFIN–BAASEL ESPAÑA, S.L., (3) credit rights derived from agreements, in each case notarized before a Notary Public in Spain.

Section 5. REAFFIRMATION

5.1 **German Reaffirmation**.

(a) The Borrower and each Loan Party organized in Germany (each, a "German Guarantor" and collectively, the "German Guarantors") as well as each other grantor of German law governed security hereby confirms that the guaranties, security interests and liens granted by it pursuant to the Loan Documents continue to guarantee and secure the Obligations as set forth in the Loan Documents and that such guaranties, security interests and liens remain in full force and effect. The Borrower and each German Guarantor as well as each other grantor of German law governed security confirms and ratifies its obligations under each of the Loan Documents executed by it after giving effect to this Amendment.

(b) Without limiting the generality of clause (a) above, the Borrower and each German Guarantor that is party to the relevant existing German Security Documents governed by German law (each an "Original German Security Document"), hereby confirms and agrees that:

(i) the security interests created under each Original German Security Document shall secure the respective Secured Obligations (as defined in the relevant Original German Security Document) after giving effect to this Amendment, including all liabilities and obligations of or claims against the Borrower or any relevant German Party under or in connection with this Amendment; and

(ii) the validity and enforceability of the security interests created under each Original German Security Document have not been and will not be impaired or limited by the amendments to the Credit Agreement by this Amendment.

5.2 **Spanish Reaffirmation**.

(a) Each Loan Party organized in Spain (each, a "Spanish Guarantor" and collectively, the "Spanish Guarantors") as well as each other grantor of Spanish law governed security hereby confirms that the guaranties, security interests and liens granted by it pursuant to the Loan Documents continue to guarantee and secure the Obligations as set forth in the Loan Documents and that such guaranties, security interests and liens remain in full force and effect. Each Spanish Guarantor as well as each other grantor of Spanish law governed security confirms and ratifies its obligations under each of the Loan Documents executed by it after giving effect to this Amendment.

5.3 **Exception for Released Liens.** For avoidance of doubt, the provisions of this Section 5 do not apply, and no representation, warranty, covenant or agreement is intended to be made under this Section 5, in respect of security interests and Liens in assets released or required to be released as provided in Section 11.20 of the Credit Agreement notwithstanding any provision herein to the contrary.

Section 6. MISCELLANEOUS

6.1 **Reference to and Effect on the Loan Documents**.

(a) As of the Amendment Effective Date, each reference in the Credit Agreement to "*this Agreement*," "*hereunder*," "*hereof*," "*herein*," or words of like import, and each reference in the other Loan Documents to the Credit Agreement (including, without limitation, by means of words like "*thereunder*", "*thereof*", "*therein*" and words of like import), shall mean and be a reference to the Credit Agreement as amended by this Amendment.

(b) Except as expressly amended or waived, as applicable, hereby, all of the terms and provisions of the Credit Agreement and all other Loan Documents are and shall remain in full force and effect and are hereby ratified and confirmed.

(c) The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of the Administrative Agent, any Lender or any L/C Issuer under the Credit Agreement or any Loan Document, or constitute a waiver or amendment of any other provision of the Credit Agreement or any Loan Document (as amended hereby) except as and to the extent expressly set forth herein.

6.2 **Costs and Expenses**. The Borrower agrees to reimburse the Administrative Agent for its costs and expenses in connection with this Amendment (and the other Loan Documents delivered in connection herewith) as provided in Section 11.04 of the Credit Agreement.

6.3 **Counterparts**. This Amendment may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Receipt by the Administrative Agent of an executed signature page to this Amendment by telecopier, facsimile or other electronic transmission (e.g., a "pdf" or "tiff") shall constitute receipt by the Administrative Agent of an executed counterpart of this Amendment.

6.4 **Governing Law**. THIS AMENDMENT AND ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY) SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

6.5 **Loan Document and Integration**. This Amendment shall constitute a Loan Document, and together with the other Loan Documents, incorporates all negotiations of the parties hereto with respect to the subject matter hereof and is the final expression and agreement of the parties hereto with respect to the subject matter hereof.

6.6 **Headings**. Section headings contained in this Amendment are included herein for convenience of reference only and shall not constitute a part of this Amendment for any other purposes.

6.7 **No Novation.** Each of the parties hereto acknowledges and agrees that the terms of this Amendment do not constitute a novation but, rather, an amendment of the terms of a pre-existing Indebtedness and related agreement, as evidenced by the Credit Agreement.

6.8 **Waiver of Jury Trial**. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AMENDMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AMENDMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers and partners thereunto duly authorized, as of the date indicated above.

COHERENT, INC., as the Parent and a Domestic Guarantor

By: /s/ Bret DiMarco______________________________
Name: Bret DiMarco
Title: Executive Vice President, General Counsel and Secretary

COHERENT HOLDING GMBH, as the Borrower

By: /s/ Bret DiMarco

Name: Bret DiMarco

Title: Managing Director

COHERENT INTERNATIONAL LLC
COHERENT-DEOS, LLC
COHERENT, TIOS, INC.
COHERENT INVESTMENT, LLC
COHERENT ASIA, INC.
ROFIN-SINAR TECHNOLOGIES LLC.
PRC LASER CORPORATION
LEE LASER, INC.
ROFIN-SINAR, INC.
DILAS DIODE LASER INC.
NUFERN
COHERENT TRADING, LLC, each as a Domestic Guarantor

By: /s/ Mitchell McPeek______________________
Name: Mitchell McPeek
Title: President

COHERENT GMBH
COHERENT (DEUTSCHLAND) GMBH
COHERENT KAISERSLAUTERN GMBH
COHERENT GERMANY GMBH
COHERENT REAL ESTATE GMBH
ROFIN-SINAR LASER GMBH
RASANT-ALCOTEC
BESCHICHTUNGSTECHNIK GMBH
DILAS DIODENLASER GMBH
PMB ELEKTRONIK GMBH
WB-PRC LASER SERVICE GMBH
BAASEL LASERMED GMBH
CBL VERWALTUNGSGESELLSCHAFT MBH,
each as a Foreign Guarantor

By: /s/ Mitchell McPeek____________________________
Name: Mitchell McPeek
Title: Managing Director

ROFIN-BAASEL LASERTECH GMBH & CO., KG,
as a Foreign Guarantor

represented by its general partner
CBL VERWALTUNGSGESELLSCHAFT MBH,
the latter represented by

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Managing Director

COHERENT REAL ESTATE 1 GMBH & CO. KG
COHERENT REAL ESTATE 2 GMBH & CO. KG
COHERENT REAL ESTATE 3 GMBH & CO. KG,
each as a Foreign Guarantor

each represented by its general partner
COHERENT REAL ESTATE GMBH
the latter represented by

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Managing Director

COHERENT LASERSYSTEMS GMBH & CO., KG,
as a Foreign Guarantor

represented by its general partner
COHERENT GMBH,
the latter represented by

By: _/s/ Mitchell McPeek_________________________
Name: Mitchell McPeek
Title: Managing Director

COHERENT (UK) HOLDINGS LIMITED, as a Foreign Guarantor

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Director

COHERENT (UK) LIMITED, as a Foreign Guarantor

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Director

COHERENT SCOTLAND LIMITED, as a Foreign Guarantor

By: _/s/ Mitchell McPeek_______________________
Name: Mitchell McPeek
Title: Director

MIDAZ LASERS LIMITED, as a Foreign Guarantor

By: __/s/ Mitchell McPeek_______________________
Name: Mitchell McPeek
Title: Director

ROFIN-BAASEL UK LIMITED, as a Foreign Guarantor

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Director

E.S. TECHNOLOGY LIMITED, as a Foreign Guarantor

By: _/s/ Mitchell McPeek_______________________
Name: Mitchell McPeek
Title: Director

Signed for and on behalf of **COHR INTERNATIONAL INVESTMENT C.V.**, as a Foreign Guarantor

By: COHERENT TRADING, LLC, in its capacity as general partner (in Dutch: *beherend vennoot*)

By: _/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: President

Signed for and on behalf of **COHR INTERNATIONAL TRADING C.V.**, as a Foreign Guarantor

By: COHERENT INC., in its capacity as general partner (in Dutch: *beherend vennoot*)

By: _/s/ Bret DiMarco___________________________
Name: Bret DiMarco
Title: Executive Vice President, General Counsel and Secretary

COHERENT EUROPE B.V.
COHERENT DUTCH MERGER SUB B.V.
ROFIN-BAASEL BENELUX B.V., each as a Foreign Guarantor

By: __/s/ Mitchell McPeek______________________
Name: Mitchell McPeek
Title: Director

ROFIN-SINAR TECHNOLOGIES EUROPE, S.L.,
as a Foreign Guarantor

By: __/s/ Mitchell McPeek________________________
Name: Mitchell McPeek
Title: Joint and Several Director

BARCLAYS BANK PLC, as Administrative Agent

By: _/s/ May Huang
Name: May Huang
Title: Assistant Vice President

EXHIBIT A

<u>Pledge Confirmation</u>

CONFIRMATION AGREEMENT

between

COHERENT EUROPE B.V.

(as Pledgor 1)

ROFIN-SINAR TECHNOLOGIES EUROPE, S.L.

(as Pledgor 2)

and

BARCLAYS BANK PLC

(as Administrative Agent)

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This CONFIRMATION AGREEMENT (this "**Agreement**") is made

BETWEEN:

(1) **COHERENT EUROPE B.V.**, a company incorporated as a *besloten vennootschap* under the laws of The Netherlands, registered with the trade register of The Netherlands under number 16076958 as pledgor (the "**Pledgor 1**");

(2) **ROFIN-SINAR TECHNOLOGIES EUROPE, S.L,** a company incorporated under the laws of Spain, registered with the Mercantile Registry of Barcelona under Volume 42189, Folio 15, Sheet B-265887 as additional pledgor (the "**Pledgor 2**" and, together with the Pledgor 1, the "**Pledgors**" and each a "**Pledgor**");

(3) **BARCLAYS BANK PLC**, a banking institution organized under the laws of United Kingdom, having its seat in London and registered under number 1026167, in its capacity as administrative agent and collateral agent under the Loan Documents (the "**Administrative Agent**" and, together with the Pledgors, the "**Parties**").

WHEREAS:

(A) Pursuant to a credit agreement dated November 7, 2016 by and among, *inter alios*, the lenders from time to time party thereto (the "**Lenders**"), the joint lead arrangers and joint bookrunners named therein, the Administrative Agent, Coherent, Inc. as parent, Coherent Holding BV & Co. KG (a partnership (*Kommanditgesellschaft*) incorporated under the laws of Germany, registered with the commercial register (*Handelsregister*) at the local court (*Amtsgericht*) of [ ] under the registration number HRA [ ]) (the "**Pledged Company**") (formerly Coherent Holding GmbH) as the borrower (the "**Borrower**") and the Guarantors named therein (as amended by an amendment no. 1 and waiver to credit agreement dated May 8, 2017, an amendment no. 2 to credit agreement ("**Amendment No. 2**") dated [ ], 2017 and as further amended, restated, extended or otherwise modified from time to time, the "**Credit Agreement**"), the applicable Lenders have made available (i) a revolving facility to the Borrower in the aggregate principal amount of USD 100,000,000 and (ii) a term facility to the Borrower in an aggregate principal amount of EUR 670,000,000, in each case on the terms and subject to the conditions set forth in the Credit Agreement.

(B) In connection with the Credit Agreement,

(i) Pledgor 1, the Administrative Agent and the Pledged Company have entered into a share pledge agreement dated November 7, 2016 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time);

(ii) Pledgor 1, Pledgor 2, the Administrative Agent and the Pledged Company have entered into an amended share pledge agreement dated December 27, 2016 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time); and

(iii) Pledgor 1, Pledgor 2, the Administrative Agent and the Pledged Company have entered into a confirmation and junior ranking share pledge agreement dated May 8, 2017 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time) (together, the "**Existing Share Pledge Agreements**").

(C) The shareholders of Coherent Holding GmbH (now the Pledged Company) have agreed to change the legal form of Coherent Holding GmbH (now the Pledged Company) from a limited liability company (*Gesellschaft mit beschränkter Haftung*) into a limited partnership (*Kommanditgesellschaft*). The conversion (the "**Conversion**") has been entered into the commercial register (*Handelsregister*) of the local court (*Amtsgericht*) of [ ] on [ ].

(D) Following the Conversion, the partnership interests in the Pledged Company are split as follows:

(i) Pledgor 1 holds a limited partnership interest (*Kommanditanteil*) in the Pledged Company;

(ii) Pledgor 2 holds another limited partnership interest (*Kommanditanteil*) in the Pledged Company; and

(iii) Coherent Dutch Merger Sub B.V. holds the general partnership interest (*Komplementäranteil*) in the Pledged Company.

(E) Subsequently to the Conversion, the existing pledges – which have survived the Conversion – created under the Existing Share Pledge Agreements with respect to the general partnership interest (*Komplementäranteil*) in the Pledged Company owned by Coherent Dutch Merger Sub B.V. (the "**Released Partnership Interest**") and all Ancillary Rights (as defined in each of the Existing Share Pledge Agreements) and any other ancillary rights or other rights pertaining to the Released Partnership Interest (the "**Collateral Rights**" and, together with the Released Partnership Interest, collectively, the "**Released Collateral Rights**") will be or have been released under a partnership interest pledge agreement, dated on or about the date hereof, relating to the partnership interests in the Pledged Company between the Pledgors and Coherent Dutch Merger Sub B.V. as pledgors and the Administrative Agent as pledgee.

(F) It is a condition under the Amendment No. 2 that the Parties enter into this Agreement. Each of the Pledgors has agreed to confirm the pledges created under the Existing Share Pledge Agreements with respect to the limited partnership interest owned by it.

IT IS AGREED as follows:

1. INTERPRETATION

1.2 Unless otherwise defined in this Agreement, words and expressions defined in the Credit Agreement shall have the same meaning when used in this Agreement.

1.3 Any reference in this Agreement to a defined document is a reference to that defined document as amended (however fundamentally), supplemented, novated, restated or superseded from time to time.

1.4 A reference to any Person in this Agreement includes such Person's successors, transferees and assignees.

1.5 Where the context so permits, the singular includes the plural and *vice versa*.

1.6 The headings in this Agreement are for convenience only and are to be ignored in construing this Agreement.

1.7 This Agreement is made in the English language. For the avoidance of doubt, the English language version of this Agreement shall prevail over any translation of this Agreement. However, where a German translation of a word or phrase appears in the text of this Agreement, the German translation of such word or phrase shall prevail.

2. CONFIRMATION OF PLEDGES

1. Each Pledgor confirms that the pledges created under the Existing Share Pledge Agreements, except for the pledges created under the Existing Share Pledge Agreements concerning the Released Collateral Rights, secure the Secured Obligations (as defined in the Existing Share Pledge Agreements).

2. The pledges created under the Existing Share Pledge Agreements, except for the pledges created under the Existing Share Pledge Agreements concerning the Released Collateral Rights, continue to be in full force and effect. The validity and enforceability of the security interest created under the Existing Share Pledge Agreements (except for the pledges created under the Existing Share Pledge Agreements concerning the Released Collateral Rights) shall not be and will not be impaired by Amendment No. 2.

3. PARTIAL INVALIDITY

If any provision of this Agreement should be or become invalid or unenforceable in whole or in part, this shall not affect the validity or enforceability of the remaining provisions hereof. The invalid or unenforceable provision shall be replaced by such valid and enforceable provision or agreement which best meets the intended purpose of the provision required to be replaced. The same shall apply in the event that this Agreement does not contain a provision which it needs to contain in order to achieve the intended economic purpose as expressed herein.

4. CONFLICTS

In case any conflicts between the terms of this Agreement and the terms of the Credit Agreement, the terms of the Credit Agreement shall prevail.

5. AMENDMENTS

Unless notarial form is required by mandatory law, changes and amendments to this Agreement (including to this Clause 5) must be made in writing.

6. WAIVERS

No failure or delay by the Administrative Agent in exercising any right or remedy under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise or waiver of any right or remedy preclude its further exercise or the exercise of any other right or remedy. The Loan Documents shall not limit or exclude any statutory legal remedies.

7. GOVERNING LAW; JURISDICTION

1. This Agreement and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with German law.

2. The courts of Frankfurt am Main shall have exclusive jurisdiction to settle any dispute arising out of or in connection with this Agreement (including a dispute regarding the existence, validity or termination of this Agreement) (each a "Dispute").

3. Sub-paragraph (b) is for the Administrative Agent's benefit only. As a result, the Administrative Agent shall not be prevented from taking proceedings relating to a Dispute in any other courts with jurisdiction.

The Pledgor 1

COHERENT EUROPE B.V.

By: ________________________________	By: ________________________________
Name:	Name:
Title:	Title:

The Pledgor 2

ROFIN-SINAR TECHNOLOGIES EUROPE, S.L.

By: ______________________________	By: ______________________________
Name:	Name:
Title:	Title:

The Administrative Agent

BARCLAYS BANK PLC

By: ______________________________	By: ______________________________
Name:	Name:
Title:	Title:

EXHIBIT B

Partnership Interest Pledge Agreement

PARTNERSHIP INTEREST PLEDGE AGREEMENT

relating to the partnership interests in Coherent Holding BV & Co. KG

between

COHERENT DUTCH MERGER SUB B.V.

(as Pledgor 1)

COHERENT EUROPE B.V.

(as Pledgor 2)

ROFIN-SINAR TECHNOLOGIES EUROPE, S.L.

(as Pledgor 3)

COHERENT HOLDING BV & Co. KG

(as Pledged Company, solely with respect to Clause 21 and Clause 22 of this Agreement)

and

BARCLAYS BANK PLC

(as Administrative Agent)

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This PARTNERSHIP INTEREST PLEDGE AGREEMENT (this "**Agreement**") is made

BETWEEN:

(1) **COHERENT DUTCH MERGER SUB B.V.**, a company incorporated as a *besloten vennootschap* under the laws of The Netherlands, registered with the trade register of The Netherlands under number 66661315 as pledgor (the "**Pledgor 1**");

(2) **COHERENT EUROPE B.V.**, a company incorporated as a *besloten vennootschap* under the laws of The Netherlands, registered with the trade register of The Netherlands under number 16076958 as pledgor (the "**Pledgor 2**");

(3) **ROFIN-SINAR TECHNOLOGIES EUROPE, S.L,** a company incorporated under the laws of Spain, registered with the Mercantile Registry of Barcelona under Volume 42189, Folio 15, Sheet B-265887 as additional pledgor (the "**Pledgor 3**" and, together with the Pledgor 1 and Pledgor 2, the "**Pledgors**" and each a "**Pledgor**");

(4) **COHERENT HOLDING BV & Co. KG** (formerly Coherent Holding GmbH), a partnership (*Kommanditgesellschaft*) incorporated under the laws of Germany, registered with the commercial register (*Handelsregister*) at the local court (*Amtsgericht*) of [ ] under the registration number HRA [ ] as pledged company (the "**Pledged Company**"), solely with respect to Clause 21 and Clause 22 of this Agreement; and

(5) **BARCLAYS BANK PLC**, a banking institution organized under the laws of United Kingdom, having its seat in London and registered under number 1026167, in its capacity as administrative agent and collateral agent under the Loan Documents (the "**Administrative Agent**").

WHEREAS:

(A) Pursuant to a credit agreement dated November 7, 2016 by and among, *inter alios*, the lenders from time to time party thereto (the "**Lenders**"), the joint lead arrangers and joint bookrunners named therein, the Administrative Agent, Coherent, Inc. as parent (the "**Parent**"), the Pledged Company (formerly Coherent Holding GmbH) as the borrower (the "**Borrower**") and the Guarantors named therein (as amended by an amendment no. 1 and waiver to credit agreement dated May 8, 2017, an amendment no. 2 to credit agreement ("**Amendment No. 2**") dated [ ], 2017 and as further amended, restated, extended or otherwise modified from time to time, the "**Credit Agreement**"), the applicable Lenders have made available (i) a revolving facility to the Borrower in the aggregate principal amount of USD 100,000,000 and (ii) a term facility to the Borrower in an aggregate principal amount of EUR 670,000,000, in each case on the terms and subject to the conditions set forth in the Credit Agreement.

(B) In connection with the Credit Agreement,

(i) Pledgor 2, the Administrative Agent and the Pledged Company have entered into a share pledge agreement dated November 7, 2016 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time);

(ii) Pledgor 2, Pledgor 3, the Administrative Agent and the Pledged Company have entered into an amended share pledge agreement dated December 27, 2016 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time); and

(iii) Pledgor 2, Pledgor 3, the Administrative Agent and the Pledged Company have entered into a confirmation and junior ranking share pledge agreement dated May 8, 2017 and relating to the pledge over all shares (*Geschäftsanteile*) in the Pledged Company (incorporated as Coherent Holding GmbH, a limited liability company (*Gesellschaft mit beschränkter Haftung*) at that time) (together, the "**Existing Share Pledge Agreements**").

(C) The shareholders of Coherent Holding GmbH (now the Pledged Company) have agreed to change the legal form of Coherent Holding GmbH (now the Pledged Company) from a limited liability company (*Gesellschaft mit beschränkter Haftung*) into a limited partnership (*Kommanditgesellschaft*). The conversion (the "**Conversion**") has been entered into the commercial register (*Handelsregister*) of the local court (*Amtsgericht*) of [ ] on [ ].

(D) Following the Conversion, the existing pledges – which have survived the Conversion – created under the Existing Share Pledge Agreements with respect to the general partnership interest (*Komplementäranteil*) in the Pledged Company owned by the Pledgor 1 (the "**Released Partnership Interest**") and all Ancillary Rights (as defined in each of the Existing Share Pledge Agreements) and any other ancillary rights or other rights pertaining to the Released Partnership Interest (the "**Collateral Rights**" and, together with the Released Partnership Interest, collectively, the "**Released Collateral Rights**") shall be released.

(E) The security created pursuant to this Agreement is to be administered by the Administrative Agent pursuant to the terms of the Credit Agreement.

(F) It is a condition under the Amendment No. 2 that the Parties enter into this Agreement. Each of the Pledgors has agreed to pledge its respective partnership interests in the Pledged Company and the ancillary rights pertaining thereto to the Administrative Agent as collateral for the Secured Obligations (as defined below).

IT IS AGREED as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 In this Agreement:

"**Affiliate**" means, with respect to any Person, another Person that directly, or indirectly through one or more intermediaries, controls or is controlled by or is under common control with the Person specified.

"**BGB**" means the German Civil Code (*Bürgerliches Gesetzbuch*).

"**Enforcement Event**" means an Event of Default that has occurred and is continuing.

"**Excluded Future Partnership Interests**" means any Partnership Interests in relation to which the Administrative Agent receives an Excluded Partnership Interest Notice (as defined below) from the relevant Pledgor in accordance with Clause 3.4 (*Excluded Future Partnership Interests*).

"**Excluded Partnership Interest Table**" means the table named "Excluded Partnership Interest Table" in any Excluded Partnership Interest Notice issued in accordance with Clause 3.4 (*Excluded Future Partnership Interests*).

"**Existing Partnership Interests**" means the Existing Partnership Interests Pledgor 1, the Existing Partnership Interests Pledgor 2 and the Existing Partnership Interests Pledgor 3.

"**Existing Partnership Interests Pledgor 1**" means the general partnership interest (*Komplementäranteil*) in the Pledged Company owned by the Pledgor 1 and all other partnership interests in the Pledged Company owned by the Pledgor 1, if any.

"**Existing Partnership Interests Pledgor 2**" means the limited partnership interest (*Kommanditanteil*) in the Pledged Company owned by the Pledgor 2 and all other partnership interests in the Pledged Company owned by the Pledgor 2, if any.

"**Existing Partnership Interests Pledgor 3**" means the limited partnership interest (*Kommanditanteil*) in the Pledged Company owned by the Pledgor 3 and all other partnership interests in the Pledged Company owned by the Pledgor 3, if any.

"**Future Partnership Interests**" means the Future Partnership Interests Pledgor 1, the Future Partnership Interests Pledgor 2 and the Future Partnership Interests Pledgor 3.

"**Future Partnership Interests Pledgor 1**" means all partnership interests in the Pledged Company which the Pledgor 1 may acquire in the future in the event of an increase of the partnership interest capital of the Pledged Company or otherwise.

"**Future Partnership Interests Pledgor 2**" means all partnership interests in the Pledged Company which the Pledgor 2 may acquire in the future in the event of an increase of the partnership interest capital of the Pledged Company or otherwise.

"**Future Partnership Interests Pledgor 3**" means all partnership interests in the Pledged Company which the Pledgor 3 may acquire in the future in the event of an increase of the partnership interest capital of the Pledged Company or otherwise.

"**Group**" means the Parent and each of its Subsidiaries from time to time.

"**Parties**" means the parties to this Agreement.

"**Partnership Interests**" means the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests.

"**Pledges**" means the pledges created pursuant to Clause 3.1 a), b) and c) (*Pledge of Partnership Interests and Ancillary Rights*).

"**Pledgor 1 Ancillary Rights**" means all present and future rights to receive profit distributions and any other form of distributions paid or payable on the Pledgor 1 Partnership Interests, liquidation proceeds, any compensation in case of termination (*Kündigung*) and/or withdrawal (*Austritt*) of the Pledgor 1 as partner of the Pledged Company, and all other monetary claims and all other rights pertaining to the Pledgor 1 Partnership Interests (other than voting rights), including without limitation any subscription rights in respect of an increase of the capital amount of the partnership interests and any claims relating to any accounts maintained by the Pledged Company in respect of capital, reserves or otherwise.

"**Pledgor 2 Ancillary Rights**" means all present and future rights to receive profit distributions and any other form of distributions paid or payable on the Pledgor 2 Partnership Interests, liquidation proceeds, any compensation in case of termination (*Kündigung*) and/or withdrawal (*Austritt*) of the Pledgor 2 as partner of the Pledged Company, and all other monetary claims and all other rights pertaining to the Pledgor 2 Partnership Interests (other than voting rights), including without limitation any subscription rights in respect of an increase of the capital amount of the partnership interests and any claims relating to any accounts maintained by the Pledged Company in respect of capital, reserves or otherwise.

"**Pledgor 3 Ancillary Rights**" means all present and future rights to receive profit distributions and any other form of distributions paid or payable on the Pledgor 3 Partnership Interests, liquidation proceeds, any compensation in case of termination (*Kündigung*) and/or withdrawal (*Austritt*) of the Pledgor 3 as partner of the Pledged Company, and all other monetary claims and all other rights pertaining to the Pledgor 3 Partnership Interests (other than voting rights), including without limitation any subscription rights in respect of an increase of the capital amount of the partnership interests and any claims relating to any accounts maintained by the Pledged Company in respect of capital, reserves or otherwise.

"**Pledgor 1 Partnership Interests**" means the Existing Partnership Interests Pledgor 1 and the Future Partnership Interests Pledgor 1.

"**Pledgor 2 Partnership Interests**" means the Existing Partnership Interests Pledgor 2 and the Future Partnership Interests Pledgor 2.

"**Pledgor 3 Partnership Interests**" means the Existing Partnership Interests Pledgor 3 and the Future Partnership Interests Pledgor 3.

"**Secured Obligations**" means the Obligations of the Pledgors towards the Administrative Agent, including without limitation the Parallel Debt (it being understood that the amount of such Guaranteed Obligations will be subject to the limitations set forth in Article IV of the Credit Agreement). For the avoidance of doubt, in no event shall the Secured Obligations of any Loan Party that is a Foreign Subsidiary, Foreign Holdco, Disregarded Domestic Person or direct or indirect Domestic Subsidiary of a Foreign Subsidiary include any Obligation under any Secured Swap Contract or Secured Treasury Management Agreement between any Domestic Loan Party and any Lender or Affiliate of a Lender.

1.2 Unless otherwise defined in this Agreement, words and expressions defined in the Credit Agreement shall have the same meaning when used in this Agreement.

1.3 Any reference in this Agreement to a defined document is a reference to that defined document as amended (however fundamentally), supplemented, novated, restated or superseded from time to time.

1.4 A reference to any Person in this Agreement includes such Person's successors, transferees and assignees.

1.5 Where the context so permits, the singular includes the plural and *vice versa*.

1.6 The headings in this Agreement are for convenience only and are to be ignored in construing this Agreement.

1.7 This Agreement is made in the English language. For the avoidance of doubt, the English language version of this Agreement shall prevail over any translation of this Agreement. However, where a German translation of a word or phrase appears in the text of this Agreement, the German translation of such word or phrase shall prevail.

2. RELEASE OF CERTAIN PLEDGES

The Administrative Agent hereby releases all pledges created under the Existing Share Pledge Agreements over the Released Collateral Rights in accordance with sections 1273 and 1255 of the BGB (*Aufhebung des Pfandrechts*).

For the avoidance of doubt, (i) all other pledges created under the Existing Share Pledge Agreements shall not be released and it is the understanding of the Parties that such pledges continue to exist following the release of the pledges over the Released Collateral Rights and (ii) the release does not affect the Pledges.

3. PLEDGE

3.1 Pledge of Partnership Interests and Ancillary Rights

a) The Pledgor 1 hereby pledges the Existing Partnership Interests Pledgor 1, the Future Partnership Interests Pledgor 1 and the Pledgor 1 Ancillary Rights pertaining thereto to the Administrative Agent;

b) The Pledgor 2 hereby pledges the Existing Partnership Interests Pledgor 2, the Future Partnership Interests Pledgor 2 and the Pledgor 2 Ancillary Rights pertaining thereto to the Administrative Agent; and

c) The Pledgor 3 hereby pledges the Existing Partnership Interests Pledgor 3, the Future Partnership Interests Pledgor 3 and the Pledgor 3 Ancillary Rights pertaining thereto to the Administrative Agent.

3.2 Acceptance

The Administrative Agent hereby accepts the Pledges created pursuant to Clause 3.1 a), b) and c) (*Pledge of Partnership Interests and Ancillary Rights*).

3.3 Independent Pledges

The validity and effect of each of the Pledges shall be independent from the validity and the effect of any of the other Pledges created hereunder. The Pledges to the Administrative Agent shall be separate and individual pledges.

3.4 Excluded Future Partnership Interests

In the event that any of the Partnership Interests will qualify as Excluded Property, the relevant Pledgor 1, Pledgor 2 or Pledgor 3 (as the case may be) may in relation to the Partnership Interests pledged by it, at any time, deliver to the Administrative Agent a completed notification letter substantially in the form set out in Schedule 1 (*Form of Excluded Partnership Interest Notice*) (each an "**Excluded Partnership Interest Notice**"). Following receipt of an Excluded Partnership Interest Notice by the Administrative Agent, any of the Partnership Interests referred to in the Excluded Partnership Interest Table shall be considered to be an Excluded Future Partnership Interest and the Administrative Agent shall without undue delay release the security interests in relation to such Excluded Future Partnership Interests (including, for the avoidance of doubt, all Pledgor 1 Ancillary Rights, Pledgor 2 Ancillary Rights or Pledgor 3 Ancillary Rights (as the case may be) pertaining to such Excluded Future Partnership Interests) to the relevant Pledgor 1, Pledgor 2 or Pledgor 3 (as the case may be), provided that, in each case, the respective Excluded Future Partnership Interests can be identified on the basis of the relevant Excluded Partnership Interest Notice in a manner satisfying the German law principle of determinability (*Bestimmtheitsgrundsatz*)) and further provided that the Administrative Agent has not notified the relevant Pledgor 1, Pledgor 2 or Pledgor 3 (as the case may be) in writing within two (2) Business Days following the receipt of such Excluded Partnership Interest Notice that it does not agree to the qualification of the respective Pledgor 1 Partnership Interests, Pledgor 2 Partnership Interests or Pledgor 3 Partnership Interests (as the case may be) as Excluded Property (each an "**Excluded Partnership Interest Release**"). The relevant Pledgor 1, Pledgor 2 or Pledgor 3 (as the case may be) hereby accepts such Excluded Partnership Interest Release.

4. SECURITY PURPOSE

The Pledges granted to the Administrative Agent are constituted in order to secure the prompt and complete satisfaction of any and all Secured Obligations. The Pledges shall also cover any future extensions of the Secured Obligations and each of the Pledgors hereby expressly agrees that the provisions of section 1210 paragraph 1 sentence 2 of the BGB shall not apply to this Agreement.

5. PROFIT DISTRIBUTIONS AND OTHER DISTRIBUTIONS

5.1 Entitlement to receive profit distributions and other distributions

Notwithstanding that profit distributions and other distributions paid or payable on the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests are pledged hereunder, each of the Pledgor 1, Pledgor 2 and Pledgor 3 shall be entitled (to the extent not prohibited by the Loan Documents) to receive, retain and use all profit distributions and other distributions in respect of the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests (as applicable) until the occurrence of an Enforcement Event.

5.2 Administrative Agent's rights

Notwithstanding Clause 5.1 (*Entitlement to receive profit distributions and other distributions*) above, upon the occurrence of an Enforcement Event:

a) profit shares or other distributions paid or payable otherwise than in cash and other property received, receivable or otherwise distributed in respect of or in exchange for the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests;

b) profit shares or other distributions paid or payable in cash in respect of the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests in connection with the partial or total liquidation or dissolution or in connection with the reduction of capital, capital surplus or paid-in surplus; and

c) cash paid, payable or otherwise distributed in redemption of, or in exchange for the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests,

shall be transferred, assigned and delivered to the Administrative Agent to be held as collateral and if received by any of the Pledgors, shall be received as holder for the Administrative Agent and segregated from the other property or funds of the relevant Pledgor and be forthwith delivered to the Administrative Agent as collateral in the same form as received.

6. VOTING RIGHTS

6.1 Voting rights with the Pledgors

The voting rights, resulting from the Pledgor 1 Partnership Interests, the Pledgor 2 Partnership Interests and the Pledgor 3 Partnership Interests remain with the Pledgor 1, Pledgor 2 and Pledgor 3 (as applicable).

6.2 Impairment

Except as otherwise not prohibited by the Credit Agreement, the Pledgors shall not take, or participate in, any action which impairs in any material manner, or which would for any other reason be inconsistent in any material manner with, the Administrative Agent's security interest or the security purpose as described in Clause 4 (*Security purpose*) hereof or which would defeat, impair or circumvent the Administrative Agent's rights hereunder.

6.3 Information by the Pledgors

The relevant Pledgor shall notify the Administrative Agent forthwith of any shareholders' meeting at which a resolution is intended to be adopted which (except as contemplated or not prohibited by the Credit Agreement including, for the avoidance of doubt, in connection with the Post-Closing Reorganization) could reasonably be expected to have a material adverse effect upon the validity or enforceability of the Pledges granted by it. Upon an Enforcement Event, the relevant Pledgor shall allow the Administrative Agent or any other Person designated by the Administrative Agent to attend such shareholders' meeting of the Pledged Company (for the avoidance of doubt, without any voting right). Such right to attend the shareholders' meeting shall terminate immediately upon the Termination Date.

7. REPRESENTATIONS AND WARRANTIES

The Pledgor 1, the Pledgor 2 and the Pledgor 3, each only in relation to itself and not regarding the other one, hereby represents and warrants to the Administrative Agent in relation to the Partnership Interests pledged by it that as of the date of this Agreement:

a) the description of the Existing Partnership Interests Pledgor 1, Existing Partnership Interests Pledgor 2 and Existing Partnership Interests Pledgor 3 in Clause 1 (*Definitions and Interpretation*) is complete, true and correct;

b) it is the sole legal and beneficial (*wirtschaftlicher*) owner of all of the Existing Partnership Interests pledged by it and except for the pledges created under the Existing Share Pledge Agreements and this Agreement as well as Permitted Liens, the Existing Partnership Interests pledged by it are free from any right, claim, title, interest, pledge, lien or other encumbrance or charge of third parties;

c) the Existing Partnership Interests pledged by it hereunder are fully paid and are its only partnership interests in the Pledged Company and there is no obligation for a shareholder to make additional contributions in relation thereto;

d) it is not subject to any restriction of any kind (other than Permitted Liens) with regard to the transfer of, or the granting of a pledge in, or any other disposal of, the Existing Partnership Interests respectively purported to be pledged by it or with regard to the right to receive or profit shares or other distributions on the Existing Partnership Interests respectively pledged by it;

e) the Pledges created under this Agreement (i) over the Existing Partnership Interests Pledgor 1 and the Pledgor 1 Ancillary Rights are first ranking pledges (subject to Permitted Liens) and (ii) are junior ranking pledges (subject to Permitted Liens) over the Existing Partnership Interests (other than the Existing Partnership Interests Pledgor 1) and the respective Pledgor 2 Ancillary Rights and Pledgor 3 Ancillary Rights pertaining thereto;

f) with the exception of such facts disclosed to the Administrative Agent, in particular with respect to the Post-Closing Reorganization, all facts mandatorily required to be entered into the commercial register of the Pledged Company have been entered into the commercial register, and, in particular, no shareholders' resolutions regarding changes in the articles of association of the Pledged Company have been passed;

g) there are no silent partnership agreements or similar arrangements by which any third parties are entitled to a participation in the profits or revenue of the Pledged Company in respect of which it has granted a pledge; and

h) there are no option rights or other similar rights outstanding nor is there any other agreement by virtue of which any Person is entitled to have issued or transferred to it any share, option, warrant or other interest of whatever nature in the Pledged Company, other than pursuant to this Agreement.

8. UNDERTAKINGS OF THE PLEDGOR

The Pledgors, each only in relation to itself and not regarding the other one, undertake to the Administrative Agent (unless otherwise not prohibited by the Credit Agreement) in relation to the Partnership Interests pledged by it:

a) to inform the Administrative Agent promptly of any attachments (Pfändung) in respect of any of the Partnership Interests or the Pledgor 1 Ancillary Rights or the Pledgor 2 Ancillary Rights or the Pledgor 3 Ancillary Rights (as applicable) or any part thereof that would reasonably be expected to have a Material Adverse Effect. In the event of any such attachment, the relevant Pledgor undertakes to forward to the Administrative Agent without undue delay a copy of the relevant attachment order (Pfändungsbeschluss), the garnishee order (Überweisungsbeschluss) and all other documents necessary for a defense against the attachment. The relevant Pledgor shall inform the attaching creditor without undue delay of the Administrative Agent's security interests hereunder;

b) without the Administrative Agent's prior written consent,

i) not to sell or encumber or otherwise dispose of the Partnership Interests or the Pledgor 1 Ancillary Rights, the Pledgor 2 Ancillary Rights and the Pledgor 3 Ancillary Rights, respectively, pledged by it;

ii) not to allow any party other than itself to subscribe for any newly issued share/ partnership interest in the Pledged Company;

c) to notify the Administrative Agent without undue delay of any change in the relevant Pledgor's shareholding in, or the capital contributions to, the Pledged Company or of any change in the articles of association or the registration of the Pledged Company in the commercial register, which, in each case, would materially and adversely affect (i) the ability to transfer, pledge or otherwise dispose of the Partnership Interests or the Pledgor 1 Ancillary Rights, the Pledgor 2 Ancillary Rights and the Pledgor 3 Ancillary Rights, respectively, pledged hereunder or (ii) the validity or enforceability of the Pledges granted hereunder;

d) to effect promptly any payments to be made to the Pledged Company in respect of the Partnership Interests, the Pledgor 1 Ancillary Rights, the Pledgor 2 Ancillary Rights and/or the Pledgor 3 Ancillary Rights;

e) that all Future Partnership Interests pledged by it will be fully paid up and that there will be no obligation for a shareholder to make additional contributions;

f) to ensure that at all times the Administrative Agent holds a valid and first ranking pledge over 100% of the Partnership Interests (subject to Permitted Liens); and

g) to refrain from any act or omission which would materially and adversely affect or jeopardize directly the enforceability of the Pledges.

9. ENFORCEMENT

9.1 Enforcement right

If and when an Enforcement Event has occurred and the requirements set forth in sections 1273 paragraph 2, 1204 et seq. of the BGB with regard to the enforcement of pledges are met (*Pfandreife*), the Administrative Agent may realize the Pledges (or any part thereof) by way of public auction (*öffentliche Versteigerung*) or in any other way permitted under German law, in any case notwithstanding section 1277 of the BGB without obtaining any enforceable judgment or other instrument (*vollstreckbarer Titel*).

9.2 Notification and auction

a) If and when an Enforcement Event has occurred and the requirements set forth in Clause 9.1 (*Enforcement right*) are met, the Administrative Agent shall give the relevant Pledgor at least one (1) week's prior written notice of its intention to realize the security interests granted by it hereunder. However, such notice shall not be required if (i) the relevant Pledgor has generally ceased to make payments (*Zahlungen eingestellt*) or (ii) an application for the institution of insolvency proceedings or similar proceedings is filed by or against the relevant Pledgor, except where such application is frivolous or vexatious and is discharged.

b) The public auction may be held at any place in the Federal Republic of Germany which will be determined by the Administrative Agent. The Administrative Agent shall notify the relevant Pledgor ten (10) days in advance of the place and time of the public auction in accordance with section 1237 sentence 2 of the BGB.

c) No further notices are required to initiate the enforcement of the Pledges.

9.3 Administrative Agent's discretions

The Administrative Agent shall be entitled to determine in its sole discretion which part of the Pledges shall be realized to satisfy the Secured Obligations, reasonably taking into account the legitimate interests of the relevant Pledgor. Section 1230 sentence 2 of the BGB shall not apply.

9.4 Assistance by the Pledgors

If the Administrative Agent seeks to realize the Pledges pursuant to, and in accordance with Clause 9.1 (*Enforcement right*), the relevant Pledgor shall, at its own expense, render forthwith all assistance reasonably necessary in order to facilitate the prompt sale of the Partnership Interests, any part thereof, the prompt enforcement and realization of the Pledgor 1 Ancillary Rights, the Pledgor 2 Ancillary Rights and the Pledgor 3 Ancillary Rights and/or the exercise by the Administrative Agent of any other right the Administrative Agent may have under German law.

9.5 Profit distributions

Provided that the requirements for a realization referred to under Clause 9.1 (*Enforcement right*) above are met, all profit distributions and other payments, if any, which have been or will be made to any of the Pledgors and, as the case may be, all payments based on similar ancillary rights attributed to the Partnership Interests may be applied by the Administrative Agent in satisfaction in whole or in part of the Secured Obligations notwithstanding its right to treat such payments as additional collateral.

10. INDEPENDENT AND CONTINUING SECURITY

This Agreement shall create an independent and continuing security interest and no change or amendment whatsoever in any Loan Document or in any document or agreement related to it, nor (in deviation from the principles set out in section 418 of the BGB) any assumption of debt (*Schuldübernahme*) in relation to the Secured Obligations, shall affect the validity or the scope of this Agreement or the obligations which are imposed on any of the Pledgors pursuant to it.

11. RELEASE (*SICHERHEITENFREIGABE*)

If the Administrative Agent is obliged to release all or part of the security granted under the Collateral Documents due to mandatory German law and is requested to do so by the relevant Pledgor prior to the Termination Date, the Administrative Agent may, at its discretion, determine which part of the security may be released.

12. WAIVER OF DEFENSES

Each Pledgor hereby waives its rights of revocation (*Anfechtbarkeit*) and set-off (*Aufrechenbarkeit*) it may have pursuant to sections 1211 and 770 of the BGB. The Administrative Agent hereby accepts such waiver.

13. NO RECOURSE AGAINST THIRD PARTIES

a) In deviating from section 1225 of the BGB, no right of the Administrative Agent against any other Loan Party shall pass to any of the Pledgors as a result of the enforcement of the Pledges. The relevant Pledgor may not exercise any rights which it may have by reason of performance by it of its obligations under this Agreement or as a result of the enforcement of the collateral created under this Agreement:

(i) to be indemnified by another Loan Party;

(ii) to claim any recourse from any other chargor of any Loan Party's obligations under the Loan Documents;

(iii) to exercise any right of set-off against any other Loan Party; and/or

(iv) to take the benefit (in whole or in part and whether by way of legal subrogation or otherwise) of any rights of the Secured Parties under the Loan Documents or of any other guarantee or collateral taken pursuant to, or in connection with, the Loan Documents by any Secured Party.

b) Each Pledgor furthermore hereby waives (by way of an agreement in favor of the Administrative Agent pursuant to section 328 of the BGB) any contractual and/ or statutory damage and/or reimbursement claims (Schadensersatz- und Aufwendungsersatzansprüche) against any other Loan Party it may have in case of realization and/or satisfaction of any of the Secured Obligations. For the avoidance of doubt, none of the Pledgors shall be entitled to demand an assignment of the Secured Obligations to it.

c) If any of the Pledgors receive any benefit, payment or distribution in relation to such rights it shall hold that benefit, payment or distribution on trust for the Secured Parties to the extent necessary to enable all amounts which may be or become payable to the Secured Parties by the Loan Parties under or in connection with the Loan Documents to be repaid in full and shall promptly (unverzüglich) pay or transfer the same to the Administrative Agent or as the Administrative Agent may direct for application in accordance with the instructions of the Secured Parties.

14. ASSIGNMENT

This Agreement shall be binding upon the Parties and their respective successors in law. If and when the pledges created hereunder have been transferred to a third party by operation of law due to a transfer of the Secured Obligations in accordance with the Loan Documents, the Administrative Agent shall be entitled to assign or otherwise transfer any and all of its rights and duties under this Agreement to such third party in accordance with the provisions of the Loan Documents provided that the assignee accepts to be bound by the terms of this Agreement. The Pledgors undertake to enter into any agreement required by the Administrative Agent (acting reasonably) and otherwise to do whatever is reasonably required by the Administrative Agent if the Administrative Agent transfers its rights and obligations in accordance with the Loan Documents wholly or partially to a third party. In particular, the Administrative Agent may require the Pledgors to create new pledges over the Partnership Interests and (including any ancillary rights pertaining thereto) in favor of the third party or another person designated by the Administrative Agent to the extent necessary (as reasonably determined by the Administrative Agent).

If and to the extent not prohibited in the Credit Agreement, the Pledgors may transfer any of its rights to any third party.

15. PARTIAL INVALIDITY

If any provision of this Agreement should be or become invalid or unenforceable in whole or in part, this shall not affect the validity or enforceability of the remaining provisions hereof. The invalid or unenforceable provision shall be replaced by such valid and enforceable provision or agreement which best meets the intended purpose of the provision required to be replaced. The same shall apply in the event that this Agreement does not contain a provision which it needs to contain in order to achieve the intended economic purpose as expressed herein.

16. CONFLICTS

In case any conflicts between the terms of this Agreement and the terms of the Credit Agreement, the terms of the Credit Agreement shall prevail.

17. AMENDMENTS

Unless notarial form is required by mandatory law, changes and amendments to this Agreement (including to this Clause 17) must be made in writing.

18. WAIVERS

No failure or delay by the Administrative Agent in exercising any right or remedy under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise or waiver of any right or remedy preclude its further exercise or the exercise of any other right or remedy. The Loan Documents shall not limit or exclude any statutory legal remedies.

19. NOTICES AND THEIR LANGUAGE

19.1 Contact details

Any notice or other communication under or in connection with this Agreement shall be in writing and shall be delivered personally, or sent by mail, e-mail, or fax transmission to the following addresses:

For the Pledgors:

c/o Coherent, Inc.
5100 Patrick Henry Drive
Santa Clara, CA 95054
Attn: Bret DiMarco
Phone: (408) 764-4180
Fax: (408) 764-4800
E-mail: bret.dimarco@coherent.com
Website: https://www.coherent.com/Investors/

with a copy to:

Wilson Sonsini Goodrich & Rosati, P.C.
650 Page Mill Road
Palo Alto, CA 94304
Attn: John Fore
Phone: (650) 320-4651
Fax: (650) 493-6811
E-mail: jfore@wsgr.com

For the Administrative Agent:

Barclays Bank, PLC
745 Seventh Avenue
New York, New York 10019
Attn: May Huang
Phone: (212) 526-0787
E-mail: may.huang@barclays.com

with a copy to:

Weil, Gotshal & Manges LLP
767 Fifth Avenue
New York, NY 10153
Attn: Daniel Dokos
Phone: (212) 310-8576
Fax: (212) 310-8007
E-mail: daniel.dokos@weil.com

or to such other address as the recipient may notify or may have notified to the other party in writing.

19.2 English language

a) Any notice given under or in connection with this Agreement must be in English.

b) All other documents provided under or in connection with this Agreement must be:

(i) in English; or

(ii) if not in English, and if so required by the Administrative Agent, accompanied by a certified English translation and, in this case, the English translation will prevail unless the document is a constitutional, statutory or other official document.

20. GOVERNING LAW; JURISDICTION

a) This Agreement and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with German law.

b) The courts of Frankfurt am Main shall have exclusive jurisdiction to settle any dispute arising out of or in connection with this Agreement (including a dispute regarding the existence, validity or termination of this Agreement) (each a "Dispute").

c) Sub-paragraph (b) is for the Administrative Agent's benefit only. As a result, the Administrative Agent shall not be prevented from taking proceedings relating to a Dispute in any other courts with jurisdiction.

21. NOTIFICATION OF PLEDGES

The Pledgors herewith notify the Pledged Company of the Pledges and by signature to this Agreement the Pledged Company acknowledges receipt of such notification.

22. CONSENT OF THE PLEDGOR AND THE PLEDGED COMPANY

The Pledgors and the Pledged Company herewith expressly consent to the Pledges and, upon the occurrence of an Enforcement Event, to the realization of any such Pledges, including by sale and transfer of the partnership interests in the Pledged Company as a result of or in connection with an enforcement of the Pledges in accordance with Clause 9 (*Enforcement*).

SCHEDULE 1

Form of Excluded Partnership Interest Notice

From: [*relevant Pledgor*]
(the "**Pledgor**")

To: Barclays Bank PLC
(the "**Administrative Agent**")

Dated: [ ]

Coherent / Rofin Financing – Partnership Interest Pledge Agreement dated [●]

Excluded Partnership Interest Notice

Dear Sirs

We refer to the partnership interest pledge agreement between ourselves as pledgor and you as pledgee dated [●] 2017 whereby certain existing and future partnership interests have been pledged to you in your capacity as Administrative Agent under the Credit Agreement (as defined therein) (the "**Partnership Interest Pledge Agreement**"). Unless otherwise defined in this letter, words and expressions defined in the Partnership Interest Pledge Agreement and the Credit Agreement shall have the same meaning when used in this letter.

We hereby notify you that the Partnership Interests pledged by us listed in the Excluded Partnership Interest Table below [have come into existence on [ ].] [have been identified by us as Excluded Property on [ ].]

Excluded Partnership Interest Table				

We hereby represent and warrant that the Partnership Interests listed in the Excluded Partnership Interest Table [are being used for the purpose of [ ] and thereby qualifies as Excluded Property. Therefore, the Partnership Interests referred to herein shall be considered to be an Excluded Future Partnership Interests for purposes of the Partnership Interest Pledge Agreement and the security interests in relation to such Excluded Future Partnership Interests shall be released by the Administrative Agreement in accordance with Clause 3.4 (*Excluded Future Partnership Interest*) of the Partnership Interests Pledge Agreement.

The Pledgor hereby confirms its acceptance of the Excluded Partnership Interest Release.

This letter shall be governed by and construed in accordance with German law.

Yours faithfully,

____

[●]

The Pledgor 1

COHERENT DUTCH MERGER SUB B.V.

By: ________________________________

Name:

Title:

The Pledgor 2

COHERENT EUROPE B.V.

By: ________________________________

Name:

Title:

The Pledgor 3

ROFIN-SINAR TECHNOLOGIES EUROPE, S.L.

By: ________________________________

Name:

Title:

The Pledged Company

COHERENT HOLDING BV & CO. KG

By: ________________________________

Name:

Title:

The Administrative Agent

BARCLAYS BANK PLC

By: ________________________________	By: ________________________________
Name:	Name:
Title:	Title:

EXHIBIT C

Deed of Pledge of Shares

DEED OF DISCLOSED PLEDGE OVER REGISTERED SHARES
COHERENT DUTCH MERGER SUB B.V.

On this day, the […] day of […] two thousand and seventeen, appeared before me, Wijnand Hendrik Bossenbroek, civil law notary in Amsterdam:

1. […], employed at the offices of me, civil law notary, located at 1082 PR Amsterdam, Beethovenstraat 400, born in […] on the […] day of […] nineteen hundred and […], acting for the purposes of this deed as the holder of a written power of attorney from:

a. **Coherent Europe B.V.**, a private company with limited liability (*besloten vennootschap met beperkte aansprakelijkheid*) incorporated under the laws of the Netherlands, having its corporate seat at Utrecht (address: 3526 KL Utrecht, Kanaalweg 18 A, trade register number 16076958), as pledgor (the "**Pledgor**"); and

b. **Coherent Dutch Merger Sub B.V.**, a private company with limited liability (*besloten vennootschap met beperkte aansprakelijkheid*) incorporated under the laws of the Netherlands, having its corporate seat at Utrecht (address: 3526 KL Utrecht, Kanaalweg 18, trade register number 66661315), as company (the "**Company**"); and

2. […], employed at the offices of me, civil law notary, located at 1082 PR Amsterdam, Beethovenstraat 400, born in […] on the […] day of […] nineteen hundred […],

acting for the purposes of this deed as the holder of a written power of attorney from: **Barclays Bank PLC**, a company under the laws of England and Wales, having its registered address at 1 Churchill Place, London E14 5HP, United Kingdom, and registered with the United Kingdom under number 1026167, in its capacity as Administrative Agent and collateral agent of the other Secured Parties, as pledgee (the "**Pledgee**").

The persons appearing, acting in the aforementioned capacities, declared as follows:

WHEREAS

A. Reference is made to the credit agreement, dated the seventh day of November two thousand and sixteen, between, *inter alios*, Coherent, Inc. as parent, Coherent Holding GmbH as borrower, certain subsidiaries of Coherent, Inc. named in that agreement as guarantors, the Pledgee as administrative agent and an L/C issuer, Bank of America, N.A. and MUFG Union Bank, N.A. as an L/C issuer (the "**Credit Agreement**").

B. Coherent, Inc., acting in its capacity as general partner (beherend vennoot) and in the name and for the account of COHR International Trading C.V., the Pledgee and the Company have entered into a deed of disclosed pledge over registered shares in the capital of the Company on the seventh day of November two thousand and sixteen (the "Original Deed") pursuant to which Coherent, Inc., acting in its capacity as general partner (beherend vennoot) and in the name and for the account of COHR International Trading C.V., has granted a right of pledge over the Collateral (as defined in the Original Deed).
C. Pursuant to the Original Deed, the Pledgee is entitled to cancel (opzeggen) any right of pledge set out in the Original Deed in whole or in part by notice in writing to Coherent, Inc. as provided for in section 3:81(2)(d) NCC.
D. Paragraph b. of article 9 (Cancellation, Termination and Release) of the Original Deed in conjunction with Section 11.20 of the Credit Agreement provides that the rights of pledge granted to the Pledgee on the Collateral shall be cancelled (opzeggen) upon the Disposition of such Collateral by any Loan Party to any other Person in a transaction not prohibited by the Credit Agreement and that the Pledgee shall promptly take such actions and execute any such documents as may be reasonably requested in connection with such release.
E. On the […] day of […] two thousand and seventeen Coherent, Inc., acting in its capacity as general partner (beherend vennoot) and in the name and for the account of COHR International Trading C.V. contributed the Shares to the Pledgor in accordance with the terms of the deed of additional contribution on shares in Coherent Europe B.V. and transfer of shares in Coherent Dutch Merger Sub B.V. (the "Contribution Deed").
F. In connection with the execution of the Contribution Deed the Pledgee has been requested and has agreed to execute this deed in order to cancel (opzeggen) the rights of pledge created in favour of the Pledgee over the Collateral pursuant to the Original Deed in accordance with the terms of this deed.
G. Each Loan Party has or will have monetary payment obligations to the Secured Parties under or in connection with the Credit Agreement and the other Secured Documents.
H. To enable the Pledgee to hold security governed by the laws of the Netherlands for the benefit of the Secured Parties, each Loan Party has undertaken to pay to the Pledgee, acting in its own name and not as agent or representative of the Secured Parties, amounts equal to the amounts owed by that Loan Party to all Secured Parties under the Secured Documents (each a Parallel Debt).
I. The Pledgor wishes to create, where applicable also by way of third party security, a pledge over the Collateral in favour of the Pledgee to secure payment of the Parallel Debts.

J. The Pledgee enters into this deed as Administrative Agent and collateral agent under the Credit Agreement and for the benefit of the Secured Parties, but not as representative of or trustee for the Secured Parties.

DEFINITIONS AND INTERPRETATION

Article 1

1.1 Definitions

Unless otherwise defined below, capitalised words and expressions defined in the Credit Agreement have the same meanings when used in this deed:

"**Article**"	means an article in this deed.
"**Collateral**"	all Shares, New Shares and present and future rights related thereto, including but not limited to rights in respect of dividend or of conversion, repurchase or capital reduction, bonus shares, stock dividend, liquidation or other forms of distributions, warrants, claims and options.
"**Credit Agreement**"	has the meaning given to that term in the recitals to this deed.
"**Enforcement Event**"	an Event of Default that has occurred and which is continuing and which has resulted in a default as referred to in section 3:248 NCC with respect to the payment of the Secured Obligations.
"**Meeting Rights**"	the rights as referred to in section 2:227 NCC.
"**NCC**"	the Netherlands Civil Code.
"**New Shares**"	any and all shares in the share capital of the Company which the Pledgor will acquire after the execution of this deed.
"**Party**"	means a party to this deed.
"**Pledge**"	means any pledge created and, to the extent applicable, purported to be created under this deed.
"**Secured Documents**"	means each Loan Document, each Secured Swap Contract and each Secured Treasury Management Agreement.
"**Secured Obligations**"	means all monetary payment obligations, whether present or future, actual or contingent, owed from time to time by any Loan Party to the Pledgee under or in connection with the Parallel Debts of such Loan Party.
"**Shares**"	twenty-five thousand (25,000) registered ordinary shares in the share capital of the Company, with a nominal value of one euro (EUR 1) each, numbered 1 up to and including 25,000.
"**Voting Rights**"	the voting rights attached to the Shares and the New Shares.

1.2 Construction and interpretation

a. A reference to any asset, legal relationship or obligation shall, where the context so permits, be construed as a reference to any present or future asset, legal relationship or obligations.

b. An Event of Default is "**continuing**" if it is continuing within the meaning of the Credit Agreement.

c. A reference to the "**Pledgee**" or the "**Pledgor**" shall be construed to include its respective successors or assigns.

d. A reference to an agreement, instrument or other document is a reference to such agreement, instrument or other document as from time to time amended, novated, supplemented, extended, restated or otherwise modified including in connection with an increase, reduction, alteration of the purpose or other amendment of the Facilities made available under the Credit Agreement (including by way of an Incremental Facility), addition of new facilities, any rescheduling of indebtedness incurred under the Credit Agreement, accession or retirement of the parties to the Credit Agreement or any combination of the foregoing (subject to any restrictions on such amendments, supplements or modifications set forth in the Credit Agreement or in any other Loan Document.

e. The word "**includes**" and its derivatives means "includes, but is not limited to" and corresponding derivative expressions.

f. The words "**dispose**", "**disposal**" and "**disposition**" include the creation of a pledge, mortgage or other in rem right or interest.

g. The definition of "**Secured Obligations**" will be subject to the limitations set forth in article IV (*Guarantee*) of the Credit Agreement and shall for the avoidance of doubt in no event include a Parallel Debt that constitutes an Obligation under any Secured Swap Contract or Secured Treasury Management Agreement between any Domestic Loan Party and any Lender or any Affiliate of a Lender.

h. The definition of "**Secured Obligations**" shall not include a Parallel Debt that constitutes an Obligation to the extent that, if included, the Pledge or any part thereof would constitute a violation of the prohibition of financial assistance as contained in Chapter VI of Title IV of Spanish Companies Act.

i. Words denoting the singular shall include the plural and vice versa.

j. The words used in this deed to describe legal concepts, although in English, refer to Netherlands legal concepts only and the interpretation of those words under the laws of any country other than the Netherlands is to be disregarded.

1.3 Dutch Security Document

This deed is a Dutch Security Document.

CANCELLATION OF EXISTING RIGHT OF PLEDGE

Article 2

2.1 Cancellation

a. The Pledgee hereby cancels (*zegt op*) the rights of pledge created over the Collateral in favour of the Pledgee pursuant to the Original Deed.

b. The Company will send a copy of this deed to Coherent, Inc. The copy of this deed will serve as written notice as provided for in clause 9 (*Cancellation, Termination and Release*) paragraph a of the Original Deed.

c. The cancellation provided for in this Clause is unconditional and irrevocable.

AGREEMENT AND CREATION OF PLEDGE
Article 3

3.1 Agreement to pledge Collateral

The Pledgor agrees to pledge to the Pledgee on the terms of this deed, all of its Collateral.

3.2 Creation of pledge over Collateral

As security for the payment when due of the Secured Obligations, the Pledgor hereby pledges to the Pledgee, as the case may be and to the extent permitted by law in advance, all of its Collateral.

3.3 Parties' intent

a. The Pledgor confirms that each Pledge is intended to extend and shall extend to the amount of the Secured Obligations from time to time notwithstanding any amendment, variation, increase, extension, addition or other event (however fundamental) of or to any Secured Document and/or of or to any facility or amount made available under any Secured Document, including but not limited to any Incremental Facility and notwithstanding any other event that may affect the Secured Obligations:

i. including any rescheduling of indebtedness under any facility, any accession of a party to or retirement of a party from any Secured Document, any deferral or redenomination of any amount owing under any Secured Document, any change in the purpose for which any facility or amount is made available, any addition of a new facility, any increase of the amount of a facility, or any increase in the margin, fee or commission or any other amount owing or accruing under any Secured Document; and

ii. irrespective of whether the purpose of that amendment, variation, increase, extension or addition or other event is to carry out business acquisitions of any nature, to increase working capital, to enable distributions to be made to shareholders, to carry out restructurings, to refinance existing facilities, to refinance any other indebtedness, to make facilities available to new borrowers, or any other purpose;

and shall likewise extend to any fees, costs and/or expenses associated with any such amendment, variation, increase, extension, addition or other event.

b. The Pledgor confirms and agrees that if the Pledgee transfers its rights under the Parallel Debts to a successor administrative agent (the "**New Administrative Agent**") subject to and in accordance with the terms of the Credit Agreement, it is intended that, to the extent possible under the laws of the Netherlands:

i. claims of the New Administrative Agent arising after the date of such transfer and falling within the definition of Secured Obligations will be secured by the Pledge;

ii. Collateral acquired by the Pledgor after the date of such transfer will be subject to the Pledge (and the Pledgor agrees and confirms that any Pledge created by the Pledgor in advance shall be deemed to have been created also for the benefit of such New Administrative Agent); and

iii. any power of attorney or waiver granted to the Pledgee under this deed will be deemed to have been created also for the benefit of such New Administrative Agent and can be enforced against the Pledgor by the New Administrative Agent.

REPRESENTATIONS AND WARRANTIES
Article 4

4.1 Representations and warranties

The Pledgor represents and warrants to the Pledgee that on the date of this deed and each date specified in Article 3.2 (*Times when representations made*):

a. subject to any restrictions under the Company's articles of association, it has full title to the Collateral to the extent acquired prior to the moment of this representation and it has full power to dispose of and encumber that Collateral;

b. except as not prohibited by the Credit Agreement, the Collateral is not subject to any limited right or other encumbrance and no offer has been made or agreement entered into to transfer or encumber, whether or not in advance, the Collateral and no attachment (*beslag*) has been levied on the Collateral;

c. there are no outstanding options or other rights entitling the holder thereof to the transfer of (part of) the Collateral or any of the present and future rights relating thereto;

d. except as not prohibited by the Credit Agreement, no rights to receive future dividends or other forms of distributions with respect to any of the Shares and/or any of the New Shares, have been granted to any party other than to the Pledgee pursuant to this deed;

e. the Shares have been paid up in full;

f. no depositary receipts have been issued for the Shares;

g. there are no outstanding claims on the Company for the issue of any shares in the share capital of the Company; and

h. except as not prohibited by the Credit Agreement, no resolution to dissolve the Company has been adopted nor has the Chamber of Commerce notified the Company of its intention to dissolve the Company within the meaning of section 2:19a NCC.

4.2 Times when representations made

The representations and warranties in Article 4.1 (*Representations and warranties*) are deemed to be repeated by the Pledgor on each day the Pledgor acquires any New Share. Each representation and warranty deemed to be made after the execution of this deed shall be deemed to be made by reference to the facts and circumstances existing at the date the representation and warranty is deemed to be made and, where applicable, a reference to Shares shall be read as a reference to New Shares.

UNDERTAKINGS

Article 5

5.1 Information

Upon the occurrence and during the continuance of an Event of Default, at the Pledgee's first reasonable request and in such form as the Pledgee may reasonably designate, the Pledgor shall provide all information, evidence and documents relating to the Collateral which the Pledgee reasonably deems necessary to exercise its rights under this deed.

5.2 Duty to notify

The Pledgor shall inform the Pledgee promptly of any attachments in respect of the Collateral or any part thereof that would reasonably be expected to have a Material Adverse Effect.

5.3 Inspection of Collateral and books and records

The provisions of Section 7.10 (*Inspection Rights*) of the Credit Agreement are hereby incorporated by reference, mutatis mutandis, and shall apply with like effect to this deed as if fully set forth herein.

5.4 Further assurances

At the Pledgee's reasonable request, the Pledgor shall at its own expense provide any assurances to or for the benefit of the Pledgee and perform all acts that the Pledgee reasonably considers necessary for the creation or perfection of a Pledge or to exercise or have the full benefit of its rights under or in connection with this deed after the occurrence and during the continuance of an Event of Default (including the right to enforce these rights).

VOTING RIGHTS

Article 6

The Voting Rights shall be vested in (*toekomen aan*) the Pledgee, subject to the cumulative conditions precedent that (i) an Event of Default shall have occurred which is continuing and (ii) the Company and the Pledgor have been notified in writing by the Pledgee that it wishes to exercise the Voting Rights. The Company confirms (and the Pledgor agrees) that a written notice from the Pledgee to the Company and the Pledgor in accordance with the provisions of this deed, stating that an Event of Default has occurred which is continuing and that the Pledgee wishes to exercise the Voting Rights shall be sufficient for it to accept the Pledgee as being exclusively entitled to exercise the Voting Rights. Until the notices referred to in the preceding sentence have been sent the Meeting Rights shall not accrue to the Pledgee.

DIVIDENDS, DISTRIBUTIONS AND OTHER PAYMENTS

Article 7

7.1 Collection by Pledgor

The Pledgor may collect all dividends, distributions and other payments on the Collateral subject to Article 7.2 (*Collection by Pledgee*).

7.2 Collection by Pledgee

Upon the occurrence of an Event of Default which is continuing, the Pledgee may revoke the authorisation under Article 7.1 (*Collection by Pledgor*) above and give notice to the Company of the Pledgee's sole authority to collect all dividends, distributions and other payments on the Collateral and the Pledgee may instruct the Company to make all further payments into a bank account designated by the Pledgee. The Pledgor hereby waives in advance any right it may have under section 3:246(4) NCC.

ENFORCEMENT

Article 8

a. During an Enforcement Event, the Pledgee may, without any further notice of default or other notice being required:

i. sell any or all of the Collateral in accordance with applicable law and take recourse against the proceeds of sale;

ii. take recourse against the proceeds of all dividends, distributions and other payments on the Collateral collected pursuant to Article 7.2 (*Collection by Pledgee*);

iii. exercise any other right, remedy, power or discretion provided by law or under this deed.

b. The Pledgor waives its right to file a request with the court under section 3:251(1) NCC to sell the Collateral in another manner than as provided for in section 3:250 NCC.

c. The Pledgee shall be obliged to notify the Pledgor of the sale or of how, where or when it will be or was conducted in accordance with the provisions as provided for in section 3:249 (1) NCC and 3:252 NCC.

d. The Pledgee is not obliged to first enforce any other security right created under or in connection with the Loan Documents.

e. Except as otherwise provided under the Credit Agreement, the Pledgor hereby irrevocably and unconditionally waives any right it may have or acquire under sections 3:233, 3:234, 6:139 and 6:154 NCC.

APPLICATION OF PROCEEDS

Article 9

The Pledgee shall distribute any amount received by it in payment of a Parallel Debt or pursuant to enforcement of one or more of the rights of pledge created under this deed among the Secured Parties in accordance with Section 11.24 (*Parallel Debt*) of the Credit Agreement, subject to mandatory provisions of the laws of the Netherlands.

CANCELLATION, TERMINATION AND RELEASE

Article 10

The Pledgee is entitled to cancel (*opzeggen*) any Pledge and any contractual arrangements set out in this deed in whole or in part by notice in writing to the Pledgor as provided for in section 3:81(2)(d) NCC.

Further the provisions of Section 11.20 (*Release of Collateral and Guaranty Obligations*) of the Credit Agreement are hereby incorporated by reference, *mutatis mutandis*, and shall apply with like effect to this deed as if fully set forth herein.

LIABILITY

Article 11

The provisions of Section 11.04 (b) (*Indemnification by the Loan Parties*) of the Credit Agreement are hereby incorporated by reference, *mutatis mutandis*, and shall apply with like effect to this deed as if fully set forth herein.

COSTS

Article 12

The Pledgee shall be reimbursed for all costs, losses, claims and expenses of whatever nature (including legal fees) incurred by it in connection with this deed if, and to the extent such reimbursement is required under Section 11.04 (a) (*Expenses; Indemnity; and Damage Waiver*) of the Credit Agreement.

POWER OF ATTORNEY

Article 13

The Pledgor gives the Pledgee an irrevocable power of attorney, with the right of substitution, to perform all acts, including acts of disposition (*beschikkingshandelingen*) on behalf of the Pledgor which in the reasonable opinion of the Pledgee are necessary in order to: (i) create or perfect the rights of pledge purported to be created under this deed and/or (ii) to have the full benefit of those rights (including performing any of the Pledgor's obligations under this deed and exercising any of the Pledgor's rights to and in connection with the Collateral). In acting on behalf of the Pledgor pursuant to the power of attorney, the Pledgee may act as counterparty of the Pledgor even in the event of a conflict of interest. The Pledgee will only use this power of attorney if (i) ten (10) Business Days have elapsed after the Pledgee has notified the Pledgor that it failed to comply with any of its obligations under or in connection with this deed or (ii) an Event of Default has occurred which is continuing.

MISCELLANEOUS

Article 14

14.1No rescission, nullification or suspension

To the extent permitted by law, the Pledgor hereby waives any right it may have at any time:

a. under sections 6:228 or 6:265 NCC or any other ground (under any applicable law) to rescind or nullify this deed or to demand its rescission or nullification in legal proceedings; and

b. under sections 6:52, 6:262 or 6:263 NCC or any other ground (under any applicable law) to suspend the performance of any obligation under or in connection with this deed.

14.2 Transfer of rights and obligations

a. The Pledgor may not transfer any of its rights and/or obligations under or in connection with this deed or its contractual relationship under this deed without the Pledgee's prior written consent.

b. The Pledgee may transfer its contractual relationship under this deed in whole or in part to third parties subject to and in accordance with Section 11.06 (*Successors and Assigns*) of the Credit Agreement. Each of the Pledgor and the Company in advance irrevocably grant its co-operation to such transfer of contractual relationship.

c. Subject to compliance with Section 11.07 (*Treatment of Certain Information: Confidentiality*) of the Credit Agreement, the Pledgee is entitled to provide any transferee or proposed transferee with any information concerning the Pledgor and/or the Collateral.

d. Upon a transfer by the Pledgee of any rights in respect of the Parallel Debts in accordance with the terms of paragraph (b) of this Article 13.2 and the provisions of the Credit Agreement, the transferee will become entitled to the Pledge or to a corresponding undivided part thereof, as the case may be.

14.3 Notices

Any notice or other communication under or in connection with this deed must be made in accordance with the Credit Agreement.

14.4 Records and calculations of the Pledgee

The books and records maintained by the Pledgee and any calculation or determination made in the ordinary course of business by the Pledgee of the existence and the amount of the Secured Obligations, are prima facie evidence (absent manifest error) within the meaning of section 151 Netherlands Code of Civil Procedure (*Wetboek van Burgerlijke Rechtsvordering*) of the existence and the amounts of the Secured Obligations.

14.5 Partial invalidity

If, at any time, any provision of this deed is or becomes illegal, invalid or unenforceable in any respect under any law of any jurisdiction, neither the legality, validity or enforceability of the remaining provisions nor the legality, validity or enforceability of such provision under the law of any other jurisdiction will in any way be affected or impaired.

14.6 Amendments

This deed may only be amended by a written agreement, to the extent required by laws of the Netherlands in the form of a notarial deed executed before a civil law notary in the Netherlands.

14.7 Conflicts

a. Notwithstanding anything herein to the contrary, from and after the execution and delivery of any intercreditor agreement contemplated by the Credit Agreement (including any Intercreditor Agreement), (i) any security created in favour of (including any transfer to) the Pledgee pursuant to this deed will be subject to such intercreditor agreement and (ii) the exercise of any right or remedy by the Pledgee hereunder will be subject to the limitations and provisions of such intercreditor agreement.

b. In the event of any conflict or inconsistency between the terms of such intercreditor agreement and the terms of this deed, the terms of such intercreditor agreement shall govern.
In the event of any conflict or inconsistency between the terms of this deed and the terms of the Credit Agreement, the terms of the Credit Agreement shall prevail.

c. Notwithstanding the foregoing paragraphs (a) and (b), in the event of a conflict between the provisions of an intercreditor agreement and/or the Credit Agreement and any provision of this deed which are required for establishing a right of pledge over the Collateral under the laws of the Netherlands, such provisions under the laws of the Netherlands shall govern and control.

14.8 No implied waiver and no forfeiture

a. Any waiver of any provision of this deed must be made by given written notice to that effect.

b. Where the Pledgee does not exercise any right under or in connection with this deed (which includes the granting by the Pledgee to the Pledgor of an extension of time in which to perform its obligations under any of these provisions), this will not constitute a waiver or forfeiture of that right.

c. The rights of the Pledgee under this deed supplement any other right that the Pledgee may have under Netherlands law or any other law.

GOVERNING LAW AND JURISDICTION
Article 15

a. This deed shall be governed by the laws of the Netherlands (including (i) the obligation of the Pledgor as set out in Article 3.1 (*Agreement to pledge Collateral*) to create the Pledges, notwithstanding the existence of a provision in any other Loan Document stating that this obligation is to be governed by the laws of any other jurisdiction and (ii) the submission to jurisdiction pursuant to paragraph b. of this Article).

b. The courts of Amsterdam, the Netherlands have exclusive jurisdiction to settle any dispute arising from or in connection with this deed (including a dispute regarding the existence, validity or termination of this deed) and to hear any action or application to a court regarding enforcement of this rights of pledge. This paragraph b is for the benefit of the Pledgee only. As a result, the Pledgee shall not be prevented from taking proceedings in any other courts with jurisdiction. To the extent allowed by law, the Pledgee may take concurrent proceedings in any number of jurisdictions.

MANNER OF ACQUISITION

Article 16

The Pledgor acquired the Shares by means of a transfer on the legal basis (*titel*) of contribution, as is evidenced by a deed executed on the […] day of […] two thousand and seventeen before […],civil law notary at Amsterdam. The transfer was acknowledged by the Company on the same date, as is evidenced by that same notarial deed.

ACKNOWLEDGEMENT AND COMPANY STATEMENTS

Article 17

The Company:

a. acknowledges the cancellation of the rights of pledge created pursuant to the Original Deed;

b. acknowledges the rights of pledge on the Shares and acknowledges in advance, to the extent possible under the laws of the Netherlands, the rights of pledge on the New Shares;

c. will cause the cancellation of the rights of pledge created pursuant to the Original Deed and the rights of pledge including the conditional transfer of the Voting Rights and the conditional vesting in the Pledgee of the Meeting Rights to be duly entered in the shareholders' register without delay and provide the Pledgee promptly thereafter with a copy of the relevant entries in its shareholders' register;

d. acknowledges that it has received notice of the rights of pledge to the extent these rights are created on present or future claims against the Company in accordance with articles 3:236 (2) NCC and 3:94 NCC;

e. confirms that it has at all times and without interruption accepted as valid the transfers by which the Pledgor acquired the Shares and all previous transfers of the Shares, if any; and

f. shall act in accordance with the provisions of this deed.

APPROVAL OF RIGHT OF PLEDGE

Article 18

The general meeting of the Company, pursuant to article 2:198(3) NCC, by written shareholders' resolution dated the […] day of […] two thousand and seventeen, have resolved to approve the creation of the rights of pledge (including the conditional transfer of Voting Rights to the Pledgee) by means of this deed. A copy of this written shareholders' resolution will be attached to this deed.

AUTHORITY AND POWER OF ATTORNEY

Article 19

The authorisation granted to the persons appearing is evidenced by three (3) private powers of attorney, copies of which will be attached to this deed immediately after the execution of this deed.

CIVIL LAW NOTARY

Article 20

The Parties are aware that the undersigned civil law notary works with NautaDutilh N.V., the firm that has advised the Pledgee in this transaction. With reference to the Code of Conduct (*Verordening beroeps- en gedragsregels*) established by the Royal Notarial Professional Organisation (*Koninklijke Notariële Beroepsorganisatie*), the Parties herewith explicitly agree and consent (i) that the civil law notary shall execute this notarial deed and (ii) that the Pledgee is assisted and represented by NautaDutilh N.V. in relation to the Secured Documents and this deed and any agreements that may be concluded, or disputes that may arise, in connection therewith.

FINAL STATEMENTS

The persons appearing are known to me, civil law notary.

This deed was executed in Amsterdam on the date stated at the beginning of this deed.

After I, civil law notary, had conveyed and explained the contents of this deed in substance to the persons appearing, they declared that they had taken note of the contents of this deed, were in agreement with its contents and did not wish them to be read out in full.

Following a partial reading, this deed was signed by the persons appearing and me, civil law notary.

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, John R. Ambroseo, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Coherent, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2017

/s/: JOHN R. AMBROSEO

John R. Ambroseo
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Kevin Palatnik, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Coherent, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 9, 2017

/s/: KEVIN PALATNIK

Kevin Palatnik
Executive Vice President and Chief Financial Officer

Exhibit 32.1

Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the As Sarbanes-Oxley Act of 2002

I, John R. Ambroseo, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Coherent, Inc. on Form 10-Q for the fiscal quarter ended July 1, 2017 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Coherent, Inc.

Date: August 9, 2017

/s/: JOHN R. AMBROSEO

John R. Ambroseo
President and Chief Executive Officer

Exhibit 32.2

Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to Section 906 of the As Sarbanes-Oxley Act of 2002

I, Kevin Palatnik, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Coherent, Inc. on Form 10-Q for the fiscal quarter ended July 1, 2017 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Coherent, Inc.

Date: August 9, 2017

/s/: KEVIN PALATNIK

Kevin Palatnik
Executive Vice President and Chief Financial Officer