**KULICKE & SOFFA INDUSTRIES INC** 

Form 10-Q August 03, 2017 UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 10-O

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF  $^{\rm X}$  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 No. 0-121

KULICKE AND SOFFA INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

PENNSYLVANIA 23-1498399

(State or other jurisdiction of incorporation) (IRS Employer

Identification No.)

23A Serangoon North Avenue 5, #01-01 K&S Corporate Headquarters, Singapore 554369

(Address of principal executive offices and Zip Code)

(215) 784-6000

(Registrant's telephone number, including area code)

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

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

Large accelerated filer x 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 x

As of August 2, 2017, there were 71,097,850 shares of the Registrant's Common Stock, no par value, outstanding.

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# KULICKE AND SOFFA INDUSTRIES, INC.

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PART I. - FINANCIAL INFORMATION Item 1. - FINANCIAL STATEMENTS KULICKE AND SOFFA INDUSTRIES, INC.

CONSOLIDATED CONDENSED BALANCE SHEETS		
(in thousands)		
Unaudited		
	As of	
	July 1, 2017	October 1, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$455,357	\$423,907
Restricted cash	28,572	
Short-term investments	110,000	124,000
Accounts and other receivable, net of allowance for doubtful accounts of \$82 and \$506	214,147	130,455
respectively	•	
Inventories, net	126,382	87,295
Prepaid expenses and other current assets	25,027	15,285
Total current assets	959,485	780,942
Property, plant and equipment, net	66,233	50,342
Goodwill	46,065	81,272
Intangible assets, net	46,244	50,810
Deferred income taxes	27,593	16,822
Equity investments	1,305	
Other assets	1,991	2,256
TOTAL ASSETS	\$1,148,916	\$982,444
TOTAL ABOULTS	ψ1,110,210	Ψ>02,111
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$87,151	\$41,813
Accrued expenses and other current liabilities	101,261	63,954
Income taxes payable	10,181	12,830
Total current liabilities	198,593	118,597
Financing obligation	16,031	16,701
Deferred income taxes	32,324	27,697
Other liabilities	14,197	12,931
TOTAL LIABILITIES	\$261,145	\$175,926
Commitments and contingent liabilities (Note 14)		
CHAREHOLDERS EQUITY.		
SHAREHOLDERS' EQUITY: Preferred stock, without par value:		
Authorized 5,000 shares; issued - none	<b>\$</b> —	•
Common stock, no par value:	Ψ	ψ
Authorized 200,000 shares; issued 83,915 and 83,231, respectively; outstanding 71,094 and		
70,420 shares, respectively	504,155	498,676
Treasury stock, at cost, 12,821 and 12,811 shares, respectively	(139,594)	(139,407)
	(10),0)	(10),10)

 Retained earnings
 525,410
 449,975

 Accumulated other comprehensive loss
 (2,200
 ) (2,726

 TOTAL SHAREHOLDERS' EQUITY
 \$887,771
 \$806,518

# TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY

\$1,148,916 \$982,444

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

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# KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED CONDENSED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

Unaudited

	Three months ended		Nine months ended	
	July 1, July 2,		July 1,	July 2,
	2017	2016	2017	2016
Net revenue	\$243,897	\$216,414	\$593,149	\$481,348
Cost of sales	132,199	116,374	322,842	261,240
Gross profit	111,698	100,040	270,307	220,108
Selling, general and administrative	39,047	38,458	101,245	101,889
Research and development	25,980	22,960	72,505	69,593
Impairment charges	35,207	_	35,207	
Operating expenses	100,234	61,418	208,957	171,482
Income from operations	11,464	38,622	61,350	48,626
Interest income	1,751	972	4,502	2,295
Interest expense	(264)	(290)	(787)	(839)
Income before income taxes	12,951	39,304	65,065	50,082
Income tax (benefit)/expense	(17,867)	7,519	(10,377)	13,299
Share of results of equity-method investee, net of tax	7	_	7	
Net income	\$30,811	\$31,785	\$75,435	\$36,783
Net income per share:				
Basic	\$0.43	\$0.45	\$1.06	\$0.52
Diluted	\$0.43	\$0.45	\$1.05	\$0.52
Weighted average shares outstanding:				
Basic	71,063	70,379	70,960	70,502
Diluted	72,483	70,843	72,169	70,802
The accompanying notes are an integral part of these	consolidate	d condensed	l financial s	tatements.

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# KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED CONDENSED STATEMENTS OF COMPREHENSIVE INCOME (in thousands)

Unaudited

	Three months ended		Nine months end		ed
	July 1,	July 2,	July 1,	July 2,	
	2017	2016	2017	2016	
Net income	\$30,811	\$31,785	\$75,435	\$36,783	
Other comprehensive income:					
Foreign currency translation adjustment	2,668	(1,013)	(775)	527	
Unrecognized actuarial (loss)/gain, Switzerland pension plan, net of tax	(123)	15	(38)	1	
	2,545	(998	(813)	528	
Derivatives designated as hedging instruments: Unrealized gain/(loss) on derivative instruments, net of tax Reclassification adjustment for loss/(gain) on derivative instruments recognized, net of tax Net decrease from derivatives designated as hedging instruments, net of tax Total other comprehensive income/(loss)	542 263 805 3,350	40	70 1,269 1,339 526	(92 ) 132 40 568	
Comprehensive income	\$34,161	\$30,827	\$75,961	\$37,351	

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

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# KULICKE AND SOFFA INDUSTRIES, INC.

## CONSOLIDATED CONDENSED STATEMENTS OF CASH FLOWS

(in thousands)

Unaudited

	Nine months en		
	July 1,	July 2,	
	2017	2016	
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	\$75,435	\$36,783	
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	11,739	12,221	
Impairment charges	35,207	_	
Equity-based compensation and employee benefits	9,470	3,936	
Reversal of excess tax benefits / (Excess tax benefits) from stock-based compensation	742	(540	)
Adjustment for doubtful accounts	(134	(133	)
Adjustment for inventory valuation	5,610		,
Deferred income taxes	(10,526		)
Gain on disposal of property, plant and equipment		) (56	)
Unrealized foreign currency translation		1,166	
Share of results of equity-method investee	7	<u> </u>	
Changes in operating assets and liabilities:			
Accounts and other receivable	(83,619	(63,566	)
Inventory	(46,443		)
Prepaid expenses and other current assets		) (964	)
Accounts payable, accrued expenses and other current liabilities	83,234	53,828	,
Income taxes payable		) 4,623	
Other, net	2,704	(95	)
Net cash provided by operating activities	68,166	34,458	ŕ
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment	(22,052	) (4,692	)
Proceeds from sales of property, plant and equipment	1,352	1,053	
Purchase of equity investments	(1,312	) —	
Purchase of short-term investments	(170,000)	) —	
Maturity of short-term investments	184,000	_	
Changes in restricted cash	(28,572	) —	
Net cash used in investing activities	(36,584	) (3,639	)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payment on debts	(444	) (399	)
Proceeds from exercise of common stock options	403	215	
Repurchase of common stock	(22	) (14,551	)
(Reversal of excess tax benefits) / Excess tax benefits from stock-based compensation	(742	) 540	
Net cash used in financing activities	(805)	) (14,195	)
Effect of exchange rate changes on cash and cash equivalents	673	890	
Changes in cash and cash equivalents	31,450	17,514	
Cash and cash equivalents at beginning of period	423,907	498,614	
Cash and cash equivalents at end of period	\$455,357	\$516,128	8

# CASH PAID FOR:

Interest \$787 \$839 Income taxes \$8,017 \$9,038

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

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KULICKE AND SOFFA INDUSTRIES, INC.
NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited

#### NOTE 1: BASIS OF PRESENTATION

These consolidated condensed financial statements include the accounts of Kulicke and Soffa Industries, Inc. and its subsidiaries (the "Company"), with appropriate elimination of intercompany balances and transactions. The interim consolidated condensed financial statements are unaudited and, in management's opinion, include all adjustments (consisting only of normal and recurring adjustments) necessary for a fair statement of results for these interim periods. The interim consolidated condensed financial statements do not include all of the information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and should be read in conjunction with the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended October 1, 2016, filed with the Securities and Exchange Commission, which includes Consolidated Balance Sheets as of October 1, 2016 and October 3, 2015, and the related Consolidated Statements of Operations, Statements of Other Comprehensive Income, Changes in Shareholders' Equity and Cash Flows for each of the years in the three-year period ended October 1, 2016. The results of operations for any interim period are not necessarily indicative of the results of operations for any other interim period or for a full year.

#### Fiscal Year

Each of the Company's first three fiscal quarters end on the Saturday that is 13 weeks after the end of the immediately preceding fiscal quarter. The fourth quarter of each fiscal year ends on the Saturday closest to September 30. Fiscal 2017 quarters end on December 31, 2016, April 1, 2017, July 1, 2017 and September 30, 2017. In fiscal years consisting of 53 weeks, the fourth quarter will consist of 14 weeks. Fiscal 2016 quarters ended on January 2, 2016, April 2, 2016, July 2, 2016 and October 1, 2016.

#### Nature of Business

The Company designs, manufactures and sells capital equipment and expendable tools as well as services, maintains, repairs and upgrades equipment, all used to assemble semiconductor devices. The Company's operating results depend upon the capital and operating expenditures of semiconductor device manufacturers, integrated device manufacturers, outsourced semiconductor assembly and test providers ("OSATs"), and other electronics manufacturers including automotive electronics suppliers, worldwide which, in turn, depend on the current and anticipated market demand for semiconductors and products utilizing semiconductors. The semiconductor industry is highly volatile and experiences downturns and slowdowns which can have a severe negative effect on the semiconductor industry's demand for semiconductor capital equipment, including assembly equipment manufactured and sold by the Company and, to a lesser extent, expendable tools, including those sold by the Company. These downturns and slowdowns have in the past adversely affected the Company's operating results. The Company believes such volatility will continue to characterize the industry and the Company's operations in the future.

# Use of Estimates

The preparation of consolidated condensed financial statements requires management to make assumptions, estimates and judgments that affect the reported amounts of assets and liabilities, net revenue and expenses during the reporting periods, and disclosures of contingent assets and liabilities as of the date of the consolidated condensed financial statements. On an ongoing basis, management evaluates estimates, including but not limited to, those related to accounts receivable, reserves for excess and obsolete inventory, carrying value and lives of fixed assets, goodwill and intangible assets, valuation allowances for deferred tax assets and deferred tax liabilities, repatriation of un-remitted foreign subsidiary earnings, equity-based compensation expense, and warranties. Management bases its estimates on historical experience and on various other assumptions believed to be reasonable. As a result, management makes judgments regarding the carrying values of the Company's assets and liabilities that are not readily apparent from other sources. Authoritative pronouncements, historical experience and assumptions are used as the basis for making estimates, and on an ongoing basis, management evaluates these estimates. Actual results may differ from these

estimates.

Vulnerability to Certain Concentrations

Financial instruments which may subject the Company to concentrations of credit risk as of July 1, 2017 and October 1, 2016 consisted primarily of trade receivables. The Company manages credit risk associated with investments by investing its excess cash in highly rated debt instruments of the U.S. Government and its agencies, financial institutions, and corporations. The Company has established investment guidelines relative to diversification and maturities designed to maintain safety and liquidity. These guidelines are periodically reviewed and modified as appropriate. The Company does not have any exposure to sub-prime financial instruments or auction rate securities.

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KULICKE AND SOFFA INDUSTRIES, INC.
NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited (continued)

The Company's trade receivables result primarily from the sale of semiconductor equipment, related accessories and replacement parts, and expendable tools to a relatively small number of large manufacturers in a highly concentrated industry. Write-offs of uncollectible accounts have historically not been significant. The Company actively monitors its customers' financial strength to reduce the risk of loss.

The Company's products are complex and require raw materials, components and subassemblies having a high degree of reliability, accuracy and performance. The Company relies on subcontractors to manufacture many of these components and subassemblies and it relies on sole source suppliers for some important components and raw material inventory.

Foreign Currency Translation and Remeasurement

The majority of the Company's business is transacted in U.S. dollars; however, the functional currencies of some of the Company's subsidiaries are their local currencies. In accordance with ASC No. 830, Foreign Currency Matters ("ASC 830"), for a subsidiary of the Company that has a functional currency other than the U.S. dollar, gains and losses resulting from the translation of the functional currency into U.S. dollars for financial statement presentation are not included in determining net income, but are accumulated in the cumulative translation adjustment account as a separate component of shareholders' equity (accumulated other comprehensive income / (loss)). Under ASC 830, cumulative translation adjustments are not adjusted for income taxes as they relate to indefinite investments in non-U.S. subsidiaries. Gains and losses resulting from foreign currency transactions are included in the determination of net income.

The Company's operations are exposed to changes in foreign currency exchange rates due to transactions denominated in currencies other than the location's functional currency. The Company is also exposed to foreign currency fluctuations that impact the remeasurement of net monetary assets of those operations whose functional currency, the U.S. dollar, differs from their respective local currencies, most notably in Israel, Malaysia, Singapore and Switzerland. In addition to net monetary remeasurement, the Company has exposures related to the translation of subsidiary financial statements from their functional currency, the local currency, into its reporting currency, the U.S. dollar, most notably in Netherlands, China, Taiwan, Japan and Germany. The Company's U.S. operations also have foreign currency exposure due to net monetary assets denominated in currencies other than the U.S. dollar.

**Derivative Financial Instruments** 

The Company's primary objective for holding derivative financial instruments is to manage the fluctuation in foreign exchange rates and accordingly is not speculative in nature. The Company's international operations are exposed to changes in foreign exchange rates as described above. The Company has established a program to monitor the forecasted transaction currency risk to protect against foreign exchange rate volatility. Generally, the Company uses foreign exchange forward contracts in these hedging programs. These instruments, which have maturities of up to twelve months, are recorded at fair value and are included in prepaid expenses and other current assets, or accrued expenses and other current liabilities.

Our accounting policy for derivative financial instruments is based on whether they meet the criteria for designation as a cash flow hedge. A designated hedge with exposure to variability in the functional currency equivalent of the future foreign currency cash flows of a forecasted transaction is referred to as a cash flow hedge. The criteria for designating a derivative as a cash flow hedge include the assessment of the instrument's effectiveness in risk reduction, matching of the derivative instrument to its underlying transaction, and the assessment of the probability that the underlying transaction will occur. For derivatives with cash flow hedge accounting designation, we report the after-tax gain / (loss) from the effective portion of the hedge as a component of accumulated other comprehensive income / (loss) and reclassify it into earnings in the same period in which the hedged transaction affects earnings and in the same line item on the Consolidated Condensed Statement of Operations as the impact of the hedged transaction. Derivatives that we designate as cash flow hedges are classified in the Consolidated Condensed Statement of Cash Flows in the same section as the underlying item, primarily within cash flows from operating activities.

The hedge effectiveness of these derivative instruments is evaluated by comparing the cumulative change in the fair value of the hedge contract with the cumulative change in the fair value of the forecasted cash flows of the hedged item.

If a cash flow hedge is discontinued because it is no longer probable that the original hedged transaction will occur as previously anticipated, the cumulative unrealized gain or loss on the related derivative is reclassified from accumulated other comprehensive income / (loss) into earnings. Subsequent gain / (loss) on the related derivative instrument is recognized into earnings in each period until the instrument matures, is terminated, is re-designated as a qualified cash flow hedge, or is sold. Ineffective portions of cash flow hedges, as well as amounts excluded from the assessment of effectiveness, are recognized in earnings.

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited (continued)

#### Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents. Cash equivalents are measured at fair value based on level one measurement, or quoted market prices, as defined by ASC No. 820, Fair Value Measurements and Disclosures. As of July 1, 2017 and October 1, 2016, fair value approximated the cost basis for cash equivalents.

#### Investments

Investments, other than cash equivalents, are classified as "trading," "available-for-sale" or "held-to-maturity," in accordance with ASC No. 320, Investments-Debt & Equity Securities, and depending upon the nature of the investment, its ultimate maturity date in the case of debt securities, and management's intentions with respect to holding the securities. Investments classified as "trading" are reported at fair market value, with unrealized gains or losses included in earnings. Investments classified as "available-for-sale" are reported at fair market value, with net unrealized gains or losses reflected as a separate component of shareholders' equity (accumulated other comprehensive income / (loss)). The fair market value of trading and available-for-sale securities is determined using quoted market prices at the balance sheet date. Investments classified as held-to-maturity are reported at amortized cost. Realized gains and losses are determined on the basis of specific identification of the securities sold.

#### **Equity Investments**

The Company applies the equity method of accounting to investments that provide it with ability to exercise influence over the entities in which it lacks controlling financial interest and is not a primary beneficiary. Our proportionate share of the income or loss is recognized on a one-quarter lag and is recorded as share of results of equity-method investee, net of tax.

#### Allowance for Doubtful Accounts

The Company maintains allowances for doubtful accounts for estimated losses resulting from its customers' failure to make required payments. If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. The Company is also subject to concentrations of customers and sales to a few geographic locations, which could also impact the collectability of certain receivables. If global or regional economic conditions deteriorate or political conditions were to change in some of the countries where the Company does business, it could have a significant impact on the results of operations, and the Company's ability to realize the full value of its accounts receivable.

#### Inventories

Inventories are stated at the lower of cost (on a first-in first-out basis) or net realizable value. The Company generally provides reserves for obsolete inventory and for inventory considered to be in excess of demand. Demand is generally defined as 18 months forecasted future consumption for equipment, 24 months forecasted future consumption for spare parts, and 12 months forecasted future consumption for expendable tools. Forecasted consumption is based upon internal projections, historical sales volumes, customer order activity and a review of consumable inventory levels at customers' facilities. The Company communicates forecasts of its future consumption to its suppliers and adjusts commitments to those suppliers accordingly. If required, the Company reserves the difference between the carrying value of its inventory and the lower of cost or net realizable value, based upon projections about future consumption, and market conditions. If actual market conditions are less favorable than projections, additional inventory reserves may be required.

Inventory reserve provision for certain subsidiaries is determined based on management's estimate of future consumption for equipment and spare parts. This estimate is based on historical sales volumes, internal projections and market developments and trends.

## Property, Plant and Equipment

Property, plant and equipment are carried at cost. The cost of additions and those improvements which increase the capacity or lengthen the useful lives of assets are capitalized, while repair and maintenance costs are expensed as

incurred. Depreciation and amortization are provided on a straight-line basis over the estimated useful lives as follows: buildings 25 years; machinery, equipment, furniture and fittings 3 to 10 years; and leasehold improvements are based on the shorter of the life of lease or life of asset. Purchased computer software costs related to business and financial systems are amortized over a five-year period on a straight-line basis. Land is not depreciated. Valuation of Long-Lived Assets

In accordance with ASC No. 360, Property, Plant & Equipment ("ASC 360"), the Company's property, plant and equipment is tested for impairment based on undiscounted cash flows when triggering events occur, and if impaired, written-down to fair value

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KULICKE AND SOFFA INDUSTRIES, INC.
NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited (continued)

based on either discounted cash flows or appraised values. ASC 360 also provides a single accounting model for long-lived assets to be disposed of by sale and establishes additional criteria that would have to be met to classify an asset as held for sale. The carrying amount of an asset or asset group is not recoverable to the extent it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group. Estimates of future cash flows used to test the recoverability of a long-lived asset or asset group must incorporate the entity's own assumptions about its use of the asset or asset group and must factor in all available evidence.

ASC 360 requires that long-lived assets be tested for recoverability whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. Such events include significant under-performance relative to historical internal forecasts or projected future operating results; significant changes in the manner of use of the assets; significant negative industry or economic trends; or significant changes in market capitalization. During the three and nine months ended July 1, 2017, no impairment was recorded.

Accounting for Impairment of Goodwill

The Company operates two reportable segments: Equipment and Expendable Tools. Goodwill was recorded for the acquisitions of Orthodyne Electronics Corporation ("Orthodyne") and Assembléon B.V. ("Assembléon") in 2009 and 2015, respectively.

ASC No. 350, Intangibles-Goodwill and Other ("ASC 350") requires goodwill and other intangible assets with indefinite lives to be reviewed for impairment annually, or more frequently if circumstances indicate a possible impairment. We assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, after assessing the qualitative factors, a company determines that it is not more likely than not that the fair value of a reporting unit is less than its carrying value, then performing the two-step impairment test is unnecessary. However, if a company concludes otherwise, then it is required to perform the first step of the two-step goodwill impairment test. If the carrying value of a reporting unit exceeds its fair value in the first step of the test, then a company is required to perform the second step of the goodwill impairment test to measure the amount of the reporting unit's goodwill impairment loss, if any.

In January 2017, the FASB issued ASU 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The new guidance eliminates the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. Under the new guidance the goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount, and recognizing an impairment charge for the amount by which the carrying amount of the reporting unit exceeds its fair value, although it cannot exceed the total amount of goodwill allocated to that reporting unit. This ASU will be effective for us beginning in our first quarter of 2021 and early adoption is permitted. During the third quarter of 2017, we elected to prospectively adopt ASU2017-04. This eliminates the requirement to perform step 2 of the goodwill impairment test.

As part of the annual evaluation, the Company performs an impairment test of its goodwill in the fourth quarter of each fiscal year to coincide with the completion of its annual forecasting and refreshing of its business outlook processes. On an ongoing basis, the Company monitors if a "triggering" event has occurred that may have the effect of reducing the fair value of a reporting unit below its respective carrying value. Adverse changes in expected operating results and/or unfavorable changes in other economic factors used to estimate fair values could result in a non-cash impairment charge in the future.

Impairment assessments inherently involve judgment as to the assumptions made about the expected future cash flows and the impact of market conditions on those assumptions. Future events and changing market conditions may impact the assumptions as to prices, costs, growth rates or other factors that may result in changes in the estimates of future cash flows. Although the Company believes the assumptions that it has used in testing for impairment are reasonable, significant changes in any one of the assumptions could produce a significantly different result. Indicators of potential impairment may lead the Company to perform interim goodwill impairment assessments, including significant and

unforeseen customer losses, a significant adverse change in legal factors or in the business climate, a significant adverse action or assessment by a regulator, a significant stock price decline or unanticipated competition. For further information on goodwill and other intangible assets, see Note 4 below.

## Revenue Recognition

In accordance with ASC No. 605, Revenue Recognition, the Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, the collectability is reasonably assured, and customer acceptance, when applicable, has been received or we otherwise have been released from customer acceptance obligations. If terms of the sale provide for a customer acceptance period, revenue is recognized upon the expiration of the acceptance period or customer acceptance, whichever occurs first. The Company's standard terms are ex works (the Company's factory), with title transferring to its customer at the Company's loading dock or upon embarkation. The Company has a small percentage of sales with other terms, and revenue is recognized in accordance with the terms of the related customer purchase order.

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited (continued)

Shipping and handling costs billed to customers are recognized in net revenue. Shipping and handling costs paid by the Company are included in cost of sales.

# Research and Development

The Company charges research and development costs associated with the development of new products to expense when incurred. In certain circumstances, pre-production machines that the Company intends to sell are carried as inventory until sold.

#### Income Taxes

In accordance with ASC No. 740, Income Taxes, deferred income taxes are determined using the liability method. The Company records a valuation allowance to reduce its deferred tax assets to the amount it expects is more likely than not to be realized. While the Company has considered future taxable income and its ongoing tax planning strategies in assessing the need for the valuation allowance, if it were to determine that it would be able to realize its deferred tax assets in the future in excess of its net recorded amount, an adjustment to the deferred tax asset would increase income in the period when such determination is made. Likewise, should the Company determine it would not be able to realize all or part of its net deferred tax assets in the future, an adjustment to the deferred tax asset would decrease income in the period when such determination is made.

In accordance with ASC No. 740 Topic 10, Income Taxes, General ("ASC 740.10"), the Company accounts for uncertain tax positions taken or expected to be taken in its income tax return. Under ASC 740.10, the Company utilizes a two-step approach for evaluating uncertain tax positions. Step one, or recognition, requires a company to determine if the weight of available evidence indicates a tax position is more likely than not to be sustained upon audit, including resolution of related appeals or litigation processes, if any. Step two, or measurement, is based on the largest amount of benefit, which is more likely than not to be realized on settlement with the taxing authority. The Financial Accounting Standards Board ("FASB") has issued Accounting Standard Update ("ASU") 2015-17, Income Taxes (Topic 740), regarding the presentation of deferred income taxes. Under the new standard, both deferred tax liabilities and assets are required to be classified as noncurrent in a classified balance sheet. ASU 2015-17 will become effective for fiscal years, and the interim periods within those years, beginning after December 15, 2016 (our fiscal 2018), with early adoption allowed. During the first quarter of fiscal 2016, we elected to prospectively adopt ASU 2015-17, thus reclassifying current deferred taxes to noncurrent on the accompanying Consolidated Condensed Balance Sheet.

#### **Equity-Based Compensation**

The Company accounts for equity-based compensation under the provisions of ASC No. 718, Compensation - Stock Compensation ("ASC 718"). ASC 718 requires the recognition of the fair value of the equity-based compensation in net income. Compensation expense associated with market-based restricted stock is determined using a Monte-Carlo valuation model, and compensation expense associated with time-based and performance-based restricted stock is determined based on the number of shares granted and the fair value on the date of grant. The fair value of the Company's stock option awards are estimated using a Black-Scholes option valuation model. In addition, the calculation of equity-based compensation costs requires that the Company estimate the number of awards that will be forfeited during the vesting period. The fair value of equity-based awards is amortized over the vesting period of the award and the Company elected to use the straight-line method for awards granted after the adoption of ASC 718. Earnings per Share

Earnings per share ("EPS") are calculated in accordance with ASC No. 260, Earnings per Share. Basic EPS include only the weighted average number of common shares outstanding during the period. Diluted EPS include the weighted average number of common shares and the dilutive effect of stock options, restricted stock and share unit awards and convertible subordinated notes outstanding during the period, when such instruments are dilutive.

In accordance with ASC No. 260.10.55, Earnings per Share - Implementation & Guidance, the Company treats all outstanding unvested share-based payment awards that contain rights to nonforfeitable dividends as participating in

undistributed earnings with common shareholders. Awards of this nature are considered participating securities and the two-class method of computing basic and diluted EPS must be applied.

Accounting for Business Acquisitions

The Company accounts for business acquisitions in accordance with ASC No. 805, Business Combinations. The fair value of the net assets acquired and the results of operations of the acquired businesses are included in the Unaudited Consolidated Condensed Financial Statements from the acquisition date forward. The Company is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and results of operations during the reporting period. Estimates are used in accounting

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for, among other things, the fair value of acquired net operating assets, property and equipment, deferred revenue, intangible assets and related deferred tax liabilities, useful lives of plant and equipment, and amortizable lives of acquired intangible assets. Any excess of the purchase consideration over the identified fair value of the assets and liabilities acquired is recognized as goodwill. The valuation of these tangible and identifiable intangible assets and liabilities is subject to further management review and may change materially between the preliminary allocation and end of the purchase price allocation period.

# Restructuring charges

Restructuring charges may consist of voluntary or involuntary severance-related charges, asset-related charges and other costs due to exit activities. We recognize voluntary termination benefits when an employee accepts the offered benefit arrangement. We recognize involuntary severance-related charges depending on whether the termination benefits are provided under an ongoing benefit arrangement or under a one-time benefit arrangement. If the former, we recognize the charges once they are probable and the amounts are estimable. If the latter, we recognize the charges once the benefits have been communicated to employees.

# **Recent Accounting Pronouncements**

# Restricted Cash

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force). This update requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. This ASU will be effective for us beginning in our first quarter of 2019. Early adoption is permitted beginning in our first quarter of 2018. We do not expect the adoption of the ASU itself to have a material impact on our financial statements. We are currently evaluating the timing of the adoption of this ASU. Income Taxes

In October 2016, the FASB issued ASU 2016-16, Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory. The new guidance requires the tax effects of intercompany transactions (other than transfers of inventory) to be recognized currently. The new guidance will be effective for public business entities in fiscal years beginning after December 15, 2017 (our fiscal 2019), including interim periods within those years, with an option to early adopt. The modified retrospective approach will be required for transition to the new guidance, with a cumulative-effect adjustment recorded in retained earnings as of the beginning of the period of adoption. We do not expect the adoption of this ASU itself to have a material impact on our financial statements. However, the ultimate impact of adopting this ASU will depend on the balance of intellectual property transferred between our subsidiaries as of the adoption date. We are currently evaluating the timing of the adoption of this ASU.

## **Stock Compensation**

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. This ASU identifies areas for simplification involving several aspects of accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, an option to recognize gross stock compensation expense with actual forfeitures recognized as they occur, as well as certain classifications on the statement of cash flows. This ASU will be effective for us beginning in our first quarter of 2018. In the year of adoption, the Company anticipates it will recognize unrealized excess tax benefits of \$5.3 million in retained earnings.

In May 2017, the FASB issued ASU No. 2017-09, Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting. This ASU specifies the modification accounting applicable to any entity which changes the terms or conditions of a share-based payment award. This ASU will be effective for us beginning in our first quarter of 2019. Early adoption is permitted. We do not expect the adoption of this ASU itself to have a material impact on our financial statements.

Leases

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which requires the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under current GAAP. This ASU will be effective for us beginning in our first quarter of 2020 and early adoption is permitted. The adoption of this ASU will result in an increase to our consolidated balance sheets for these right of use assets and corresponding liabilities. However, the ultimate impact of adopting this ASU will depend on the Company's lease portfolio as of the adoption date. We are currently evaluating the timing and other effects of the adoption of this ASU on our financial statements.

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#### **Financial Instruments**

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities ("ASU 2016-01"), which updates certain aspects of recognition, measurement, presentation and disclosure of financial instruments.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This ASU replaces the impairment methodology in current GAAP, which delays recognition of credit losses until it is probable a loss has been incurred, with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. This ASU will be effective for us beginning in our first quarter of 2020. Early adoption is permitted beginning in our first quarter of 2019. We are currently evaluating the impact of the adoption of this ASU on our financial statements.

#### **Business Combinations**

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business. The new guidance provides a new framework for determining whether business development transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This ASU will be effective for us beginning in our first quarter of 2019. Earlier application is permitted for acquisition or derecognition events that occurred prior to issuance date or effective date of the guidance only when the transaction has not been reported in financial statements that have been issued or made available for issuance. We do not expect the adoption of this ASU itself to have a material impact on our financial statements. We are currently evaluating the timing of the adoption of this ASU.

#### Intangibles—Goodwill and Other

In January 2017, the FASB issued ASU 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The new guidance eliminates the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. Under the new guidance the goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount, and recognizing an impairment charge for the amount by which the carrying amount of the reporting unit exceeds its fair value, although it cannot exceed the total amount of goodwill allocated to that reporting unit. This ASU will be effective for us beginning in our first quarter of 2021 and early adoption is permitted. During the third quarter of 2017, we elected to prospectively adopt ASU2017-04.

#### Statement of Cash Flows

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. This ASU addresses the classification of certain specific cash flow issues including debt prepayment or extinguishment costs, settlement of certain debt instruments, contingent consideration payments made after a business combination, proceeds from the settlement of certain insurance claims and distributions received from equity method investees. This ASU will be effective for us beginning in our first quarter of 2019 and early adoption is permitted. We do not expect the adoption of this ASU itself to have a material impact on our financial statements. Revenue Recognition

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"), which amends the existing accounting standards for revenue recognition. ASU 2014-09 is based on principles that govern the recognition of revenue at an amount an entity expects to be entitled when products are transferred to customers.

Subsequently, the FASB has issued the following standards related to ASU 2014-09: ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations ("ASU 2016-08"); ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing ("ASU 2016-10"); ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope

Improvements and Practical Expedients ("ASU 2016-12"); and ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers ("ASU 2016-20"). The Company must adopt ASU 2016-08, ASU 2016-10, ASU 2016-12 and ASU 2016-20 with ASU 2014-09 (collectively, the "new revenue standards").

The new revenue standards may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of adoption. The new standard is effective for annual reporting periods beginning after December 15, 2017. The new standard permits companies to early adopt the new standard, but not before annual reporting periods beginning after December 15, 2016. The Company will not early adopt the new standard and therefore the new standard will be effective for the Company in the first quarter of its fiscal 2019. We have made progress in our review of the impact of this guidance on revenue related activities, and are monitoring additional changes, modifications, clarifications or interpretations undertaken by the FASB.

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We do not expect the adoption of this ASU itself to have a material impact on our financial statements. However, the ultimate impact of adopting this ASU will depend on the Company's revenue portfolio as of the adoption date.

#### **NOTE 2: RESTRUCTURING**

In 2016, the Company implemented a restructuring program to streamline its international operations and functions as well as to consolidate its organization structure to achieve our cost-reduction, productivity and efficiency initiatives. During the third quarter of fiscal 2017, the Company implemented a restructuring program to reallocate resources with respect to the Electronics Assembly/Hybrid business line. As part of this plan, \$2.8 million of restructuring related costs, consisting of \$2.3 million of severance and \$0.5 million of other exit costs have been reflected in the Company's consolidated condensed financial statements as of and for the fiscal quarter ended July 1, 2017.

The accrued cost as at July 1, 2017 is expected to be paid in fiscal 2017 and fiscal 2018.

The following table is a summary of activity related to the Company's restructuring and other charges for the three and nine months ended July 1, 2017 and July 2, 2016:

·		nonths en	ded				months en	ded	
	July 1,					•	, 2017		
(in thousands)	Beginni of period	Expenses	S Paymen	ts	End of period (1)	ΩŤ	Expense	es Paymen	End of period (1)
Severance and benefits	<b>\$</b> —	\$ 2,307	\$ —		\$2,30	7 \$37	\$ 2,307	\$(37	) \$2,307
Other exit costs	2,058	37	(199	)	1,896	6,525	37	(4,666	) 1,896
	\$2,058	\$ 2,344	\$ (199	)	\$4,20	3 \$6,56	2 \$ 2,344	\$ (4,703	) \$4,203
	July 2,		ded			July 2,		d	
(in thousands)	Beginning of Experiod <sup>(2)</sup>	Expenses	Payments			Beginni of period	ng Expenses	Payments	End of period (1)
Severance and benefits	\$166 \$		\$ (88 )	\$	78	\$1,538	\$ 661	\$(2,121)	\$ 78

<sup>(1)</sup> Included within accrued expenses and other current liabilities on the Consolidated Condensed Balance Sheets.

Provision for severance and benefits and other exit costs are included within selling, general and administrative expenses on the Consolidated Condensed Statements of Operations.

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#### NOTE 3: BALANCE SHEET COMPONENTS

The following tables reflect the components of significant balance sheet accounts as of July 1, 2017 and October 1, 2016:

(in thousands)	As of July 1, 2017	October 1, 2016
Short term investments, available-for-sale <sup>(1)</sup>	\$110,000	\$124,000
Inventories, net:		
Raw materials and supplies (2)	\$39,027	\$26,876
Work in process (2)	48,484	24,333
Finished goods (2)	60,657	57,166
-	148,168	108,375
Inventory reserves	(21,786)	(21,080)
	\$126,382	\$87,295
Property, plant and equipment, net:		
Land	\$2,182	<b>\$</b> —
Buildings and building improvements	50,400	34,472
Leasehold improvements	9,790	19,963
Data processing equipment and software (2)	34,376	32,975
Machinery, equipment, furniture and fixtures	64,865	54,730
	161,613	142,140
Accumulated depreciation (2)	(95,380)	(91,798)
	\$66,233	\$50,342
Accrued expenses and other current liabilities:		
Wages and benefits	\$38,596	\$24,248
Accrued customer obligations (3)	34,607	13,077
Commissions and professional fees	8,150	10,908
Deferred rent	1,938	2,920
Severance (4)	2,944	1,296
Other	15,026	11,505
:	\$101,261	\$63,954

All short-term investments were classified as available-for-sale and were measured at fair value based on level one measurement, or quoted market prices, as defined by ASC 820. As of July 1, 2017, fair value approximated the cost basis for short-term investments. The Company did not recognize any realized gains or losses on the sale of investments during the three and nine months ended July 1, 2017 and July 2, 2016.

Certain balances as at October 1, 2016 relating to Inventories and Property, plant and equipment have been

- (2) reclassified for comparative purposes. These reclassifications have no impact to the Consolidated Condensed Balance Sheet as at October 1, 2016.
- (3) Represents customer advance payments, customer credit program, accrued warranty expense and accrued retrofit obligations.
  - Includes the restructuring plan discussed in Note 2, severance payable in connection with the October 2015
- (4) retirement of the Company's CEO of \$0.3 million (as of October 1, 2016: \$0.8 million), and other severance payments.

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# NOTE 4: GOODWILL AND INTANGIBLE ASSETS Goodwill

Intangible assets classified as goodwill are not amortized. The goodwill established in connection with our acquisitions of Assembléon and Orthodyne represents the estimated future economic benefits arising from the assets we acquired that did not qualify to be identified and recognized individually. The goodwill also includes the value of expected future cash flows of Assembléon and Orthodyne, expected synergies with our other affiliates and other unidentifiable intangible assets. The Company performs an annual impairment test of its goodwill during the fourth quarter of each fiscal year, which coincides with the completion of its annual forecasting and refreshing of business outlook process.

The Company performed its annual impairment test in the fourth quarter of fiscal 2016 and concluded that no impairment charge was required. In each interim period, the Company reviewed qualitative factors to ascertain if a "triggering" event may have taken place that may have the effect of reducing the fair value of the reporting unit below its carrying value. During the three months ended July 1, 2017, the Company concluded that a triggering event had occurred in connection with the Electronics Assembly/Hybrid reporting unit (the former Assembléon) based on the results of an updated long-term financial outlook for the Electronics Assembly/Hybrid business that was conducted as part of the Company's strategic review during the third quarter due to the lower demand as compared to forecast. The projection used in the fiscal 2016 annual impairment test had been developed based on the fiscal 2016 actual results, where the actual revenue had exceeded the forecast. This updated outlook projected that the near-term projected cash flows are expected to be lower than previously forecasted due to softer near-term demand in the System-in-package market. Under ASC 350, the Company is required to test its goodwill and other intangible assets for impairment annually or when a triggering event has occurred that would indicate it is more likely than not that the fair value of the reporting unit is less than the carrying value including goodwill and other intangible assets. Accordingly, the Company has performed the first step of the goodwill impairment test for the Electronics Assembly/Hybrid reporting unit.

The Company used a discounted cash flow model to determine the fair value of the Electronics Assembly/Hybrid reporting unit. The cash flow projections used within the discounted cash flow model were prepared using the forecasted financial results of the reporting unit, which was based upon underlying estimates of the total market size using independent third party industry reports, and market share data developed using the combination of independent third party data and our internal data. Significant assumptions used to determine fair value of the Electronics Assembly/Hybrid reporting unit include terminal growth rate of 2.5%, cost reduction initiatives including restructuring, working capital, tax rate and a weighted average cost of capital (discount rate) of 10.45%.

Following the Company's early adoption of ASU 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment in the third quarter of fiscal 2017, the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment (i.e. Step 2 of the goodwill impairment test) was eliminated. Accordingly, the Company's impairment test is performed by comparing the fair value of a reporting unit with its carrying amount, and recognizing an impairment charge for the amount by which the carrying amount of the reporting unit exceeds its fair value. Based on the calculation, the Company determined that the carrying amount of the Electronics Assembly/Hybrid reporting unit exceeded its fair value by \$35.2 million as of July 1, 2017, requiring an impairment charge of this amount. The goodwill impairment charge, which is a non-cash charge, has been reflected in the Company's Consolidated Condensed Statements of Operations for the three and nine months ended July 1, 2017.

In connection with the evaluation of the goodwill impairment in the Electronics Assembly/Hybrid reporting unit, the Company assessed tangible and intangible assets for impairment prior to performing the first step of the goodwill impairment test. As a result of this analysis, it was determined that there were no impairment charges to record related to these assets for the three months ended July 1, 2017. No triggering event had occurred for the wedge bonder reporting unit (the former Orthodyne).

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Unaudited (continued)

The following table summarizes the Company's recorded goodwill as of July 1, 2017 and October 1, 2016:

(in thousands)	Wedge	Electronics	Total
(in thousands)	Bonder	Assembly/Hybrid	Total
Balance at October 3, 2015	\$41,546	\$ —	\$41,546
Acquired in business combination		39,726	39,726
Balance at October 1, 2016	\$41,546	\$ 39,726	\$81,272
Goodwill impairment		(35,207)	(35,207)
Balance at July 1, 2017	\$41,546	\$ 4,519	\$46,065

**Intangible Assets** 

Intangible assets with determinable lives are amortized over their estimated useful lives. The Company's intangible assets consist primarily of developed technology, customer relationships and trade and brand names.

The following table reflects net intangible assets as of July 1, 2017 and October 1, 2016:

	As of		Average estimated
(dollar amounts in thousands)	July 1, 2017	October 1, 2016	useful lives (in years)
Technology	\$74,080	\$74,080	7.0 to 15.0
Accumulated amortization	(40,013)	(37,969)	
Net technology	\$34,067	\$36,111	
Customer relationships	\$36,968	\$36,968	5.0 to 6.0
Accumulated amortization	(26,662)	(24,455)	
Net customer relationships	\$10,306	\$12,513	
Trade and brand names	\$7,515	\$7,515	7.0 to 8.0
Accumulated amortization	(5,644)	(5,329)	
Net trade and brand name	\$1,871	\$2,186	
Other intangible assets	\$2,500	\$2,500	1.9
Accumulated amortization	(2,500)	(2,500)	
Net other intangible assets	<b>\$</b> —	\$—	
Net intangible assets	\$46,244	\$50,810	

The following table reflects estimated annual amortization expense related to intangible assets as of July 1, 2017:

$\mathcal{E}$	
	As of
(in thousands)	July 1,
(in thousands)	2017
Remaining fiscal 2017	\$1,522
Fiscal 2018	6,086
Fiscal 2019	6,086
Fiscal 2020	6,086
Fiscal 2021 and onwards	26,464
Total amortization expense	\$46,244

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

#### NOTE 5: CASH, CASH EOUIVALENTS, RESTRICTED CASH AND SHORT-TERM INVESTMENTS

Cash equivalents consist of instruments with remaining maturities of three months or less at the date of purchase. In general, these investments are free of trading restrictions. We carry these investments at fair value, based on quoted market prices or other readily available market information.

Cash, cash equivalents, restricted cash and short-term investments consisted of the following as of July 1, 2017 and October 1, 2016:

	As of	
(in thousands)	July 1,	October
(iii tiiousaiius)	2017	1, 2016
Current assets:		
Cash	\$57,341	\$118,335
Cash equivalents (1):		
Money market funds	228,765	152,961
Time deposits <sup>(4)</sup>	150,202	133,611
Commercial paper	19,049	19,000
Total cash and cash equivalents	\$455,357	\$423,907
Restricted Cash (1)(3)	28,572	_
Total restricted cash	\$28,572	<b>\$</b> —
Short-term investments <sup>(1)</sup> :		
Time deposits <sup>(4)</sup>	29,000	124,000
Deposits (2)	81,000	_
Total short-term investments	110,000	124,000
Total cash, cash equivalents, restricted cash and short-term investments	\$593,929	\$547,907

- (1) Fair value approximates cost basis.
- (2) Represents deposits that require a notice period of three months for withdrawal.
- Represents primarily amounts held-in-trust related to a business acquisition. See Note 15 "Subsequent events" for details.
- Certain time deposits as at October 1, 2016 have been corrected from cash equivalents to short-term investments for comparative purposes.

### NOTE 6: EQUITY INVESTMENTS

Equity investments consisted of the following as of July 1, 2017 and October 1, 2016:

As of

July 1, October 1, (in thousands)

2017 2016

Equity method investment \$1,305 \$

In March 2017, the Company made an investment in one of our strategic suppliers which provides the Company with the ability to exercise influence over the investment vehicle, in which it lacks controlling financial interest and is not a primary beneficiary. Our share of gains and losses in the equity method investment is recognized on a one-quarter lag, and is reflected as share of results of equity-method investee, net of tax, in the accompanying Consolidated Condensed Statements of Operations. During the three and nine months ended July 1, 2017, the Company recognized \$7,147 loss on equity investment.

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Unaudited (continued)

#### NOTE 7: FAIR VALUE MEASUREMENTS

Accounting standards establish three levels of inputs that may be used to measure fair value: quoted prices in active markets for identical assets or liabilities (referred to as Level 1), inputs other than Level 1 that are observable for the asset or liability either directly or indirectly (referred to as Level 2) and unobservable inputs to the valuation methodology that are significant to the measurement of fair value of assets or liabilities (referred to as Level 3). Assets and Liabilities Measured and Recorded at Fair Value on a Recurring Basis

We measure certain financial assets and liabilities at fair value on a recurring basis. There were no transfers between fair value measurement levels during the three and nine months ended July 1, 2017.

Fair Value Measurements on a Nonrecurring Basis

Our non-financial assets such as intangible assets and property, plant and equipment are carried at cost unless impairment is deemed to have occurred. Our equity method investments are recorded at fair value only if an impairment is recognized.

Fair Value of Financial Instruments

Amounts reported as cash equivalents, restricted cash, short-term investments, accounts receivables, prepaid expenses and other current assets, accounts payable and accrued expenses approximate fair value.

#### NOTE 8: DERIVATIVE FINANCIAL INSTRUMENTS

The Company's international operations are exposed to changes in foreign exchange rates due to transactions denominated in currencies other than U.S. dollars. Most of the Company's revenue and cost of materials are transacted in U.S. dollars. However, a significant amount of the Company's operating expenses are denominated in local currencies, primarily in Singapore.

The foreign currency exposure of our operating expenses is generally hedged with foreign exchange forward contracts. The Company's foreign exchange risk management programs include using foreign exchange forward contracts with cash flow hedge accounting designation to hedge exposures to the variability in the U.S. dollar equivalent of forecasted non-U.S. dollar-denominated operating expenses. These instruments generally mature within twelve months. For these derivatives, we report the after-tax gain or loss from the effective portion of the hedge as a component of accumulated other comprehensive income (loss), and we reclassify it into earnings in the same period or periods in which the hedged transaction affects earnings and in the same line item on the Consolidated Condensed Statements of Operations as the impact of the hedged transaction.

The fair value of derivative instruments on our Consolidated Condensed Balance Sheet as of July 1, 2017 and October 1, 2016 was as follows:

	As of	
(in thousands)	July 1, 2017	October 1, 2016
	Notional Fair Value Amount Asset Derivatives <sup>(1)</sup>	Notional Amount Hair Value Liability Derivatives (2)

Derivatives designated as hedging instruments:

Foreign exchange forward contracts (3) \$34,695 \$ 877 \$28,997 \$ 462 Total derivatives \$34,695 \$ 877 \$28,997 \$ 462

- (1) The fair value of derivative assets is measured using level 2 fair value inputs and is included in prepaid expenses and other current assets on our Consolidated Condensed Balance Sheet.
- (2) The fair value of derivative liabilities is measured using level 2 fair value inputs and is included in accrued expenses and other current liabilities on our Consolidated Condensed Balance Sheet.
- (3) Hedged amounts expected to be recognized to income within the next twelve months.

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Unaudited (continued)

The effects of derivative instruments designated as cash flow hedges in our Consolidated Condensed Statements of Comprehensive Income for the three and nine months ended July 1, 2017 and July 2, 2016 are as follows:

(in thousands)	Three months		Nine months	
	ended		ended	
	July 1,	July 2,	July 1,	July 2,
	2017	2016	2017	2016
Foreign exchange forward contract in cash flow hedging relationships:				
Net gain/(loss) recognized in OCI, net of tax <sup>(1)</sup>	\$542	\$ 41	\$70	\$(92)
Net (loss)/gain reclassified from accumulated OCI into income, net of tax <sup>(2)</sup>	\$(263)	\$ 1	\$(1,269)	\$(132)
Net gain recognized in income <sup>(3)</sup>	\$	\$ —	\$	\$

- (1) Net change in the fair value of the effective portion classified in other comprehensive income ("OCI").
- (2) Effective portion classified as selling, general and administrative expense.
- (3) Ineffective portion and amount excluded from effectiveness testing classified in selling, general and administrative expense.

#### NOTE 9: DEBT AND OTHER OBLIGATIONS

#### Financing Obligation

On December 1, 2013, Kulicke & Soffa Pte Ltd. ("Pte"), the Company's wholly owned subsidiary, signed a lease with DBS Trustee Limited as trustee of Mapletree Industrial Trust (the "Landlord") to lease from the Landlord approximately 198,000 square feet, representing approximately 70% of a building in Singapore as our corporate headquarters, as well as a manufacturing, technology, sales and service center (the "Building"). The lease has a 10-year non-cancellable term (the "Initial Term") and contains options to renew for 2 further 10-year terms. The annual rent and service charge for the Initial Term range from \$4 million to \$5 million Singapore dollars.

Pursuant to ASC No. 840, Leases ("ASC 840"), we have classified the Building on our balance sheet as property, plant and equipment, which we are depreciating over its estimated useful life of 25 years. We concluded that the term of the financing obligation is 10 years. This is equal to the non-cancellable term of our lease agreement with the Landlord. At the inception of the lease, the asset and financing obligation recorded on the balance sheet was \$20.0 million, which was based on an interest rate of 6.3% over the Initial Term. As of July 1, 2017, the financing obligation related to the Building is \$16.7 million, which approximates fair value (Level 2). The financing obligation will be settled through a combination of periodic cash rental payments and the return of the leased property at the expiration of the lease. We do not report rent expense for the property, which is deemed owned for accounting purposes. Rather, rental payments required under the lease are considered debt service and applied to the deemed landlord financing obligation and interest expense. The Building and financing obligation are being amortized in a manner that will not generate a gain or loss upon lease termination.

### Credit Facilities and Bank Guarantees

On November 22, 2013, the Company obtained a \$5.0 million credit facility with Citibank in connection with the issuance of bank guarantees for operational purposes. As of July 1, 2017, the outstanding amount is \$3.3 million. On March 21, 2016, the Company entered into an Uncommitted Revolving Credit Agreement with United Overseas Bank Limited, New York Agency ("UOB"), providing for a \$25 million revolving credit facility (the "2016 Credit Facility"). The 2016 Credit Facility is an unsecured revolving credit facility of \$25 million with an initial term of one year, and has been extended on the same terms by another year until March 20, 2018. The proceeds of the 2016 Credit Facility may be used for the Company's general corporate purposes. As of July 1, 2017, there was no outstanding amount under the 2016 Credit Facility.

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KULICKE AND SOFFA INDUSTRIES, INC.

NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

### NOTE 10: SHAREHOLDERS' EQUITY AND EMPLOYEE BENEFIT PLANS

Common Stock and 401(k) Retirement Plan

The Company has a 401(k) retirement plan (the "Plan") for eligible U.S. employees. The Plan allows for employee contributions and matching Company contributions from 4% to 6% based upon terms and conditions of the 401(k) Plan.

The following table reflects the Company's contributions to the Plans during the three and nine months ended July 1, 2017 and July 2, 2016:

Stock Repurchase Program

On August 14, 2014, the Company's Board of Directors authorized a program (the "Program") to repurchase up to \$100 million of the Company's common stock on or before August 14, 2017. The Company has entered into a written trading plan under Rule 10b5-1 of the Exchange Act to facilitate repurchases under the Program. The Program may be suspended or discontinued at any time and is funded using the Company's available cash. Under the Program, shares may be repurchased through open market and/or privately negotiated transactions at prices deemed appropriate by management. The timing and amount of repurchase transactions under the Program depend on market conditions as well as corporate and regulatory considerations. During the three and nine months ended July 1, 2017, the Company repurchased a total of 9,862 shares of common stock at a cost of \$0.2 million under the Program. The stock repurchases were recorded in the periods they were delivered and accounted for as treasury stock in the Company's Consolidated Condensed Balance Sheet. The Company records treasury stock purchases under the cost method using the first-in, first-out (FIFO) method. Upon reissuance of treasury stock, amounts in excess of the acquisition cost are credited to additional paid-in capital. If the Company reissues treasury stock at an amount below its acquisition cost and additional paid-in capital associated with prior treasury stock transactions is insufficient to cover the difference between acquisition cost and the reissue price, this difference is recorded against retained earnings. As of July 1, 2017, our remaining stock repurchase authorization under the Program was approximately \$6.8 million.

Accumulated Other Comprehensive Loss

The following table reflects accumulated other comprehensive (loss) / income reflected on the Consolidated Condensed Balance Sheets as of July 1, 2017 and October 1, 2016:

(in thousands)  $\begin{array}{c} \text{As of} \\ \text{July 1,} & \text{October 1,} \\ 2017 & 2016 \end{array} \\ \text{(Loss) / Gain from foreign currency translation adjustments} & \$(313\ )\ \$462 \\ \text{Unrecognized actuarial loss Switzerland pension plan, net of tax} & (2,764\ )\ (2,726\ )\ \\ \text{Unrealized gain / (loss) on hedging} & 877 & (462\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Emission Possed Company translation} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,726\ )\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \$(2,200)\ \\ \text{Accumulated other comprehensive loss} & \$(2,200)\ \\ \text{Accumu$ 

**Equity-Based Compensation** 

The Company has stockholder-approved equity-based employee compensation plans (the "Employee Plans") and director compensation plans (the "Director Plans") (collectively, the "Equity Plans"). Under these Equity Plans, market-based share awards (collectively, "market-based restricted stock"), time-based share awards (collectively, "time-based restricted stock"), performance-based share awards (collectively, "performance-based restricted stock"), stock options, or common stock have been granted at 100% of the market price of the Company's common stock on the date

of grant. As of July 1, 2017, 5.1 million shares of common stock are available for grant to its employees and directors under the 2017 Equity Plan, including previously registered shares that have been carried forward for issuance under the 2009 Equity Plan.

Market-based restricted stock entitles the employee to receive common shares of the Company on the award vesting date, if market performance objectives that measure relative total shareholder return ("TSR") are attained. Relative TSR is calculated based upon the 90-calendar day average price of the Company's stock as compared to specific peer companies that comprise the GICS (45301020) Semiconductor Index. TSR is measured for the Company and each peer company over a performance period, which is generally three years. Vesting percentages range from 0% to 200% of awards granted.

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS
Unaudited (continued)

The provisions of the market-based restricted stock are reflected in the grant date fair value of the award; therefore, compensation expense is recognized regardless of whether the market condition is ultimately satisfied. Compensation expense is reversed if the award is forfeited prior to the vesting date.

In general, stock options and time-based restricted stock awarded to employees vest annually over a three-year period provided the employee remains employed by the Company. The Company follows the non-substantive vesting method for stock options and recognizes compensation expense immediately for awards granted to retirement eligible employees, or over the period from the grant date to the date retirement eligibility is achieved.

In general, performance-based restricted stock ("PSU") entitles the employee to receive common shares of the Company on the three-year anniversary of the grant date (if employed by the Company) if return on invested capital and revenue growth targets set by the Management Development and Compensation Committee ("MDCC") of the Board of Directors on the date of grant are met. If return on invested capital and revenue growth targets are not met, performance-based restricted stock does not vest. Certain PSUs vest based on achievement of strategic goals over a certain time period or periods set by the MDCC. If the strategic goals are not achieved, the PSUs do not vest. Equity-based compensation expense recognized in the Consolidated Condensed Statements of Operations for the three and nine months ended July 1, 2017 and July 2, 2016 was based upon awards ultimately expected to vest. In accordance with ASC No. 718, Stock Based Compensation, forfeitures have been estimated at the time of grant and were based upon historical experience. The Company reviews the forfeiture rates periodically and makes adjustments as necessary.

The following table reflects restricted stock and common stock granted during the three and nine months ended July 1, 2017 and July 2, 2016:

	Thro mor endo	nths	Nine i	nonths
(shares in thousands)	•	July 2,	•	
	201	72016	2017	2016
Market-based restricted stock	5	6	386	172
Time-based restricted stock	4	16	708	597
Common stock	10	15	35	47
Equity-based compensation in shares	19	37	1,129	816

The following table reflects total equity-based compensation expense, which includes restricted stock, stock options and common stock, included in the Consolidated Condensed Statements of Operations during the three and nine months ended July 1, 2017 and July 2, 2016:

	Three months		Nine m	onths
	ended		ended	
(in thousands)	July 1,	July 2,	July 1,	July 2,
(in thousands)	2017	2016	2017	2016
Cost of sales	\$97	\$98	\$344	\$323
Selling, general and administrative (1)	2,179	1,331	7,363	2,021
Research and development	514	472	1,763	1,592
Total equity-based compensation expense	\$2,790	\$1,901	\$9,470	\$3,936

(1) The selling, general and administrative expense for the nine months ended July 2, 2016, includes the reversal of a \$2.0 million expense due to the forfeiture of stock awards in connection with the October 2015 retirement of the Company's CEO.

The following table reflects equity-based compensation expense, by type of award, for the three and nine months ended July 1, 2017 and July 2, 2016:

	Three months		Nine m	onths
	ended		ended	
(in thousands)	July 1,	July 2,	July 1,	July 2,
(in thousands)	2017	2016	2017	2016
Market-based restricted stock	\$838	\$475	\$2,626	\$(518)
Time-based restricted stock	1,756	1,246	6,289	3,958
Performance-based restricted stock	_		_	(43)
Common stock	196	180	555	539
Total equity-based compensation expense (1)	\$2,790	\$1,901	\$9,470	\$3,936

<sup>(1)</sup> The equity-based compensation expense for the nine months ended July 2, 2016, includes the reversal of a \$2.0 million expense due to the forfeiture of stock awards in connection with the October 2015 retirement of the Company's CEO.

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KULICKE AND SOFFA INDUSTRIES, INC.

NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

### NOTE 11: EARNINGS PER SHARE

Basic income per share is calculated using the weighted average number of shares of common stock outstanding during the period. Stock options and restricted stock are included in the calculation of diluted earnings per share, except when their effect would be anti-dilutive.

The following tables reflect a reconciliation of the shares used in the basic and diluted net income per share computation for the three and nine months ended July 1, 2017 and July 2, 2016:

•		onths end		
(in thousands, except per share data)	July 1, 2017		July 2, 2016	
	Basic	Diluted	Basic	Diluted
NUMERATOR:				
Net income	\$30,811	\$30,811	\$31,785	\$31,785
DENOMINATOR:				
Weighted average shares outstanding - Basic	71,063	71,063	70,379	70,379
Stock options		17		32
Time-based restricted stock		669		331
Market-based restricted stock		734		101
Weighted average shares outstanding - Diluted		72,483		70,843
EPS:				
Net income per share - Basic	\$0.43	\$0.43	\$0.45	\$0.45
Effect of dilutive shares		_		_
Net income per share - Diluted		\$0.43		\$0.45
		nths ende		
(in thousands, except per share data)	July 1, 2	017	July 2, 2	
• •			July 2, 2	2016 Diluted
NUMERATOR:	July 1, 2 Basic	017 Diluted	July 2, 2 Basic	Diluted
NUMERATOR: Net income	July 1, 2 Basic	017	July 2, 2 Basic	
NUMERATOR: Net income DENOMINATOR:	July 1, 2 Basic \$75,435	017 Diluted \$75,435	July 2, 2 Basic \$36,783	Diluted 8 \$36,783
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic	July 1, 2 Basic	017 Diluted \$75,435 70,960	July 2, 2 Basic	Diluted 3 \$36,783 70,502
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options	July 1, 2 Basic \$75,435	017 Diluted \$75,435 70,960 21	July 2, 2 Basic \$36,783	Diluted 3 \$36,783 70,502 30
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock	July 1, 2 Basic \$75,435	017 Diluted \$75,435 70,960 21 546	July 2, 2 Basic \$36,783	Diluted 3 \$36,783 70,502 30 196
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options	July 1, 2 Basic \$75,435	017 Diluted \$75,435 70,960 21	July 2, 2 Basic \$36,783	Diluted 3 \$36,783 70,502 30
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock	July 1, 2 Basic \$75,435 70,960	017 Diluted \$75,435 70,960 21 546	July 2, 2 Basic \$36,783	Diluted 3 \$36,783 70,502 30 196
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock Market-based restricted stock Weighted average shares outstanding - Diluted EPS:	July 1, 2 Basic \$75,435 70,960	017 Diluted \$75,435 70,960 21 546 642 72,169	July 2, 2 Basic \$36,783 70,502	Diluted 3 \$36,783 70,502 30 196 74 70,802
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock Market-based restricted stock Weighted average shares outstanding - Diluted EPS: Net income per share - Basic	July 1, 2 Basic \$75,435 70,960	017 Diluted \$75,435 70,960 21 546 642 72,169 \$1.06	July 2, 2 Basic \$36,783	Diluted 3 \$36,783 70,502 30 196 74
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock Market-based restricted stock Weighted average shares outstanding - Diluted EPS: Net income per share - Basic Effect of dilutive shares	July 1, 2 Basic \$75,435 70,960	017 Diluted \$75,435 70,960 21 546 642 72,169 \$1.06 (0.01	July 2, 2 Basic \$36,783 70,502	Diluted 3 \$36,783 70,502 30 196 74 70,802 \$0.52
NUMERATOR: Net income DENOMINATOR: Weighted average shares outstanding - Basic Stock options Time-based restricted stock Market-based restricted stock Weighted average shares outstanding - Diluted EPS: Net income per share - Basic	July 1, 2 Basic \$75,435 70,960	017 Diluted \$75,435 70,960 21 546 642 72,169 \$1.06	July 2, 2 Basic \$36,783 70,502 \$0.52	Diluted 3 \$36,783 70,502 30 196 74 70,802

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KULICKE AND SOFFA INDUSTRIES, INC.

NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

#### **NOTE 12: INCOME TAXES**

The following table reflects the provision for income taxes and the effective tax rate for the three and nine months ended July 1, 2017 and July 2, 2016:

Three months ended Mine months ended (dollar amounts in thousands) July 1, 2017  $\frac{\text{July 2}}{2016}$  July 1, 2017  $\frac{\text{July 2}}{2016}$  Income tax (benefit)/expense \$(17,867) \$7,519 \$(10,377) \$13,299 Effective tax rate (138.0 )% 19.1 % (15.9 )% 26.6 %

During the third quarter of fiscal 2017, the Company has elected to adopt a foreign tax credit for its U.S. tax filings. As a result of this exercise, the Company has amended its U.S. tax returns from 2007 through 2015 and also filed its 2016 return on this same basis. Due to this tax position, the Company has recorded a favorable tax credit of \$20.9 million in its third fiscal quarter.

For the nine months ended July 1, 2017, the effective income tax rate differed from the federal statutory tax rate primarily due to tax benefits from electing to claim foreign tax credit, profits generated in foreign operations subject to a lower statutory tax rate than the federal rate, domestic research tax credit, and the impact of tax holiday, partially offset by an increase for deferred taxes on unremitted earnings, foreign withholding taxes, and tax liabilities from foreign operations.

For the nine months ended July 2, 2016, the effective income tax rate differed from the federal statutory tax rate primarily due to tax benefits from profits in foreign operations subject to a lower statutory tax rate than the federal rate, tax benefits from domestic research expenditures, and the impact of tax holiday, partially offset by a tax liability arising from a settlement with a foreign tax authority, an increase for deferred taxes on unremitted earnings, foreign withholding taxes, and an increase in valuation allowance against certain foreign deferred tax assets.

The increase in tax benefit for the three months ended July 1, 2017 of \$(17.9) million from the tax expense for the three months ended July 2, 2016 of \$7.5 million was primarily from electing to claim foreign tax credit and lower income before income tax in the quarter. The increase in tax benefit for the nine months ended July 1, 2017 of \$(10.4) million from the tax expense for the nine months ended July 2, 2016 of \$13.3 million was primarily due to tax benefits from electing to claim foreign tax credit in fiscal 2017 and a non-recurring settlement reached with a tax authority giving rise to additional tax liability, partially offset by tax benefits from a change in tax law that were recorded in fiscal 2016.

The Company's future effective tax rate would be affected if earnings were lower than anticipated in countries where it has lower statutory rates and higher than anticipated in countries where it has higher statutory rates, by changes in the valuation of its deferred tax assets and liabilities, or by changes in tax laws, regulations, accounting principles, or interpretations thereof. In addition, changes in assertion for foreign earnings permanently or non-permanently reinvested as a result of changes in facts and circumstances could significantly impact the effective tax rate. The Company regularly assesses the effects resulting from these factors to determine the adequacy of its provision for income taxes.

It is reasonably possible that the amount of the unrecognized tax benefit with respect to certain unrecognized tax positions will increase or decrease during the next 12 months due to the expected lapse of statutes of limitation and / or settlements of tax examinations. The Company is under income tax examination by tax authorities in domestic and certain foreign jurisdictions.

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KULICKE AND SOFFA INDUSTRIES, INC.

NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

#### **NOTE 13: SEGMENT INFORMATION**

The Company operates two reportable segments: Equipment and Expendable Tools. The Equipment segment manufactures and sells a line of ball bonders, wedge bonders, advanced packaging and electronic assembly solutions. The Company also services, maintains, repairs and upgrades its equipment. The Expendable Tools segment manufactures and sells a variety of expendable tools for a broad range of semiconductor packaging applications. The following table reflects operating information by segment for the three and nine months ended July 1, 2017 and July 2, 2016:

	Three mon	nths ended	Nine mon	ths ended
(in thousands)	July 1,	July 2,	July 1,	July 2,
,	2017	2016	2017	2016
Net revenue:				
Equipment	\$222,457	\$200,128	\$536,415	\$434,164
Expendable Tools	21,440	16,286	56,734	47,184
Net revenue	243,897	216,414	593,149	481,348
Income from operations:				
Equipment (1)	6,257	34,676	47,000	35,966
Expendable Tools	5,207	3,946	14,350	12,660
Income from operations	\$11,464	\$38,622	\$61,350	\$48,626

(1) During the three and nine months ended July 1, 2017, the Company has recognized a non-cash impairment charge of \$35.2 million related to goodwill in the Electronics Assembly/Hybrid reporting unit. See Note 4 "Goodwill and Other Intangible Assets" for further information.

The following table reflects assets by segment as of July 1, 2017 and October 1, 2016:

As of

(in thousands) July 1, October 1, 2017 2016

Segment assets:

Equipment \$1,042,334 \$901,316 Expendable Tools 106,582 81,128 Total assets \$1,148,916 \$982,444

The following tables reflect capital expenditures, depreciation expense and amortization expense for the three and nine months ended July 1, 2017 and July 2, 2016.

Three months Nine months

ended ended

(in thousands) July 1, July 2, July 1, July 2, 2017 2016 2017 2016

Capital expenditures:

Equipment \$1,476 \$988 \$16,534 \$3,137 Expendable Tools 2,327 492 5,375 1,259 Capital expenditures \$3,803 \$1,480 \$21,909 \$4,396

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

Three months Nine months ended ended July 1, July 2, July 1, July 2,

(in thousands) 2017 2016 2017 2016

Depreciation expense:

Equipment \$1,891 \$1,800 \$5,563 \$5,531 **Expendable Tools** 551 554 1.610 1.694 Depreciation expense \$2,442 \$2,354 \$7,173 \$7,225

Amortization expense:

Equipment \$1,521 \$1,665 \$4,566 \$4,996 **Expendable Tools** 

Amortization expense \$1,521 \$1,665 \$4,566 \$4,996

# NOTE 14: COMMITMENTS, CONTINGENCIES AND CONCENTRATIONS

#### Warranty Expense

The Company's equipment is generally shipped with a one-year warranty against manufacturing defects. The Company establishes reserves for estimated warranty expense when revenue for the related equipment is recognized. The reserve for estimated warranty expense is based upon historical experience and management's estimate of future warranty costs.

The following table reflects the reserve for warranty activity for the three and nine months ended July 1, 2017 and July 2, 2016:

	Three months		Nine mo	nths
	ended		ended	
(in they canda)	July 1,	July 2,	July 1,	July 2,
(in thousands)	2017	2016	2017	2016
Reserve for warranty, beginning of period	\$6,378	\$1,871	\$4,138	\$1,856
Provision for warranty	3,515	2,882	7,142	4,240
Warranty costs paid	(657)	(649)	(2,044)	(1,992)
Reserve for warranty, end of period	\$9,236	\$4,104	\$9,236	\$4,104

Other Commitments and Contingencies

The following table reflects obligations not reflected on the Consolidated Condensed Balance Sheet as of July 1, 2017:

Payments due by fiscal year

2017 2018 2019 2020 (in thousands) Total thereafter Inventory purchase obligation (1) \$138,461 \$138,461 \$— \$— \$--\$--Operating lease obligations (2) 3,382 2,540 2,457 11,246 973 20,598 Total \$159,059 \$139,434 \$3,382 \$2,540 \$2,457 \$11,246

(1) The Company orders inventory components in the normal course of its business. A portion of these orders are non-cancelable, however, some orders impose varying penalties and charges in the event of cancellation.

The Company has minimum rental commitments under various leases (excluding taxes, insurance, maintenance (2) and repairs, which are also paid by the Company) primarily for various facility and equipment leases, which expire periodically through 2023 (not including lease extension options, if applicable).

Pursuant to ASC No. 840, Leases, for lessee's involvement in asset construction, the Company was considered the owner of the Building during the construction phase. The Building was completed on December 1, 2013 and Pte

signed an agreement with the Landlord to lease from the Landlord approximately 198,000 square feet, representing approximately 70% of the Building. Following the completion of construction, we performed a sale-leaseback analysis pursuant to ASC 840-40 and determined that because of our continuing involvement, ASC 840-40 precluded us from derecognizing the asset and associated financing obligation. As such, we reclassified the asset from construction in progress to property, plant and equipment and began to depreciate the building over its estimated useful life of 25 years. We concluded that the term of the financing obligation is 10 years. This is equal to the non-cancellable term of our lease agreement with the Landlord. As of July 1, 2017, we recorded a financing obligation related to the Building of \$16.7 million (see Note 9 above). The financing obligation is not reflected in the table above.

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NOTES TO CONSOLIDATED CONDENSED FINANCIAL STATEMENTS

Unaudited (continued)

#### Concentrations

The following table reflects significant customer concentrations as a percentage of net revenue for the nine months ended July 1, 2017 and July 2, 2016:

Nine months ended

July 1, 2017 July 2, 2016

Haoseng Industrial Company Limited (1) \*

14.1%

(1) Distributor of the Company's products.

The following table reflects significant customer concentrations as a percentage of total accounts receivable as of July 1, 2017 and July 2, 2016:

As of

July 1, July 2,

2017 2016

Haoseng Industrial Company Limited (1)

21.8% 25.7%

Siliconware Precision Industries Co. Limited 13.4% 11.8%

Super Power International Ltd (1)

10.3% \*

(1) Distributor of the Company's products.

### **NOTE 15: SUBSEQUENT EVENTS**

On July 6, 2017, the Company entered into foreign exchange forward contracts with notional amount of \$10.5 million. The Company entered into these foreign exchange forward contracts to hedge a portion of our forecasted foreign currency-denominated expenses in the normal course of business and, accordingly, they are not speculative in nature. These foreign exchange forward contracts have maturities of up to twelve months.

On July 2, 2017, Kulicke and Soffa Holland Holdings B.V. ("KSHH"), the Company's wholly owned subsidiary, entered into a Share Sale and Purchase Agreement (the "Agreement") with the shareholders of Liteq B.V. ("Liteq") to purchase all of the outstanding equity interest of Liteq. Liteq is a lithography solutions provider for advanced packaging. The purchase price consists of EUR 25.0 million (approximately \$28.6 million) cash paid at closing and additional potential earn-out payments based on Liteq's cumulative pre-tax earnings and cumulative engineering expenses for 2018 to 2022. The acquisition expands the Company's presence in the advanced packaging market. Upon acquisition, Liteg became a wholly owned subsidiary of the Company. The Company is in the process of determining the purchase price allocation for this acquisition.

<sup>\*</sup> Represented less than 10% of total net revenue

<sup>\*</sup> Represented less than 10% of total accounts receivable

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# Item 2. - MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### Forward-Looking Statements

In addition to historical information, this filing contains statements relating to future events or our future results. These statements are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and are subject to the safe harbor provisions created by statute. Such forward-looking statements include, but are not limited to, our future revenue, sustained, increasing, continuing or strengthening, or decreasing or weakening, demand for our products, the continuing transition from gold to copper wire bonding and other new products, replacement demand, our research and development efforts, our ability to identify and realize new growth opportunities, our ability to control costs and our operational flexibility as a result of (among other factors):

projected growth rates in the overall semiconductor industry, the semiconductor assembly equipment market, and the market for semiconductor packaging materials; and

projected demand for ball, wedge bonder, advanced packaging and electronic assembly equipment and for expendable tools.

Generally, words such as "may," "will," "should," "could," "anticipate," "expect," "intend," "estimate," "plan," "continue," "g "believe," or the negative of or other variations on these and other similar expressions identify forward-looking statements. These forward-looking statements are made only as of the date of this filing. We do not undertake to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise. Forward-looking statements are based on current expectations and involve risks and uncertainties. Our future results could differ significantly from those expressed or implied by our forward-looking statements. These risks and uncertainties include, without limitation, those described below and under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended October 1, 2016 (the "Annual Report") and our other reports and registration statements filed from time to time with the Securities and Exchange Commission. This discussion should be read in conjunction with the Consolidated Condensed Financial Statements and Notes included in this report, as well as our audited financial statements included in the Annual Report.

We operate in a rapidly changing and competitive environment. New risks emerge from time to time and it is not possible for us to predict all risks that may affect us. Future events and actual results, performance and achievements could differ materially from those set forth in, contemplated by or underlying the forward-looking statements, which speak only as of the date on which they were made. Except as required by law, we assume no obligation to update or revise any forward-looking statement to reflect actual results or changes in, or additions to, the factors affecting such forward-looking statement. Given those risks and uncertainties, investors should not place undue reliance on forward-looking statements as predictions of actual results.

### **OVERVIEW**

Kulicke and Soffa Industries, Inc. ("We", the "Company" or "K&S") designs, manufactures and sells capital equipment and expendable tools used to assemble semiconductor devices, including integrated circuits ("ICs"), high and low powered discrete devices, light-emitting diodes ("LEDs"), and power modules. We also service, maintain, repair and upgrade our equipment. Our customers primarily consist of semiconductor device manufacturers, integrated device manufacturers ("IDMs"), outsourced semiconductor assembly and test providers ("OSATs"), other electronics manufacturers and automotive electronics suppliers.

We operate two main business segments, Equipment and Expendable Tools. Our goal is to be the technology leader and the most competitive supplier in terms of cost and performance in each of our major product lines. Accordingly, we invest in research and engineering projects intended to enhance our position as a leader in the semiconductor assembly technology. We also remain focused on our cost structure through continuous improvement and optimization of operations. Cost reduction efforts are an important part of our normal ongoing operations and are intended to generate savings without compromising overall product quality and service levels. Business Environment

The semiconductor business environment is highly volatile and is driven by internal dynamics, both cyclical and seasonal, in addition to macroeconomic forces. Over the long term, semiconductor consumption has historically grown, and is forecast to continue to grow. This growth is driven, in part, by regular advances in device performance and by price declines that result from improvements in manufacturing technology. In order to exploit these trends, semiconductor manufacturers, both IDMs and OSATs, periodically invest aggressively in latest generation capital equipment. This buying pattern often leads to periods of excess supply and reduced capital spending—the so-called semiconductor cycle. Within this broad semiconductor cycle there are also, generally

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weaker, seasonal effects that are specifically tied to annual, end-consumer purchasing patterns. Typically, semiconductor manufacturers prepare for heightened demand by adding or replacing equipment capacity by the end of the September quarter. Occasionally, this results in subsequent reductions in the December quarter. This annual seasonality can be overshadowed by effects of the broader semiconductor cycle. Macroeconomic factors also affect the industry, primarily through their effect on business and consumer demand for electronic devices, as well as other products that have significant electronic content such as automobiles, white goods, and telecommunication equipment. Our Equipment segment is primarily affected by the industry's internal cyclical and seasonal dynamics in addition to broader macroeconomic factors that can positively or negatively affect our financial performance. The sales mix of IDM and OSAT customers in any period also impacts financial performance, as changes in this mix can affect our products' average selling prices and gross margins due to differences in volume purchases and machine configurations required by each customer type.

Our Expendable Tools segment has historically been less volatile than our Equipment segment. Expendable Tools sales are more directly tied to semiconductor unit consumption rather than capacity requirements and production capability improvements.

We continue to position our business to leverage our research and development leadership and innovation and to focus our efforts on mitigating volatility, improving profitability and ensuring longer-term growth. We remain focused on operational excellence, expanding our product offerings and managing our business efficiently throughout the business cycles. Our visibility into future demand is generally limited, forecasting is difficult, and we generally experience typical industry seasonality.

To limit potential adverse cyclical, seasonal and macroeconomic effects on our financial position, we have continued our efforts to maintain a strong balance sheet. As of July 1, 2017, our total cash, cash equivalents, restricted cash and short-term investments were \$593.9 million, a \$46.0 million increase from the prior fiscal year end. We believe this strong cash position will allow us to continue to invest in product development and pursue non-organic opportunities. Factors that Affect Operating Results

#### **Key Events**

During the three months ended July 1, 2017, the Company concluded that a triggering event had occurred in connection with the Electronics Assembly/Hybrid reporting unit (the former Assembléon) based on the results of an updated long-term financial outlook for the Electronics Assembly/Hybrid business that was conducted as part of the Company's strategic review during the third quarter due to the lower demand as compared to forecast. The projection used in the fiscal 2016 annual impairment test had been developed based on the fiscal 2016 actual results, where the actual revenue had exceeded the forecast. This updated outlook projected that the near-term projected cash flows are expected to be lower than previously forecasted due to softer near-term demand in the System-in-package market. Under ASC 350, the Company is required to test its goodwill and other intangible assets for impairment annually or when a triggering event has occurred that would indicate it is more likely than not that the fair value of the reporting unit is less than the carrying value including goodwill and other intangible assets. Accordingly, the Company has performed the first step of the goodwill impairment test for the Electronics Assembly/Hybrid reporting unit. The Company used a discounted cash flow model to determine the fair value of the Electronics Assembly/Hybrid reporting unit. The cash flow projections used within the discounted cash flow model were prepared using the forecasted financial results of the reporting unit, which was based upon underlying estimates of the total market size using independent third party industry reports, and market share data developed using the combination of independent third party data and our internal data. Significant assumptions used to determine fair value of the Electronics Assembly/Hybrid reporting unit include terminal growth rate of 2.5%, cost reduction initiatives including restructuring, working capital, tax rate and a weighted average cost of capital (discount rate) of 10.45%. Our calculation of the estimated fair value of goodwill was based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable. Any changes in the assumptions may result in additional impairment. Following the Company's early adoption of ASU 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment in the third quarter of fiscal 2017, the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment (i.e. Step 2 of the goodwill impairment test) was eliminated. Accordingly, the Company's impairment test is performed by comparing the fair value of a reporting unit

with its carrying amount, and recognizing an impairment charge for the amount by which the carrying amount of the reporting unit exceeds its fair value. Based on the calculation, the Company determined that the carrying amount of the Electronics Assembly/Hybrid reporting unit exceeded its fair value by \$35.2 million as of July 1, 2017, requiring an impairment charge of this amount. The goodwill impairment charge, which is a non-cash charge, has been reflected in the Company's Consolidated Condensed Statements of Operations for the three and nine months ended July 1, 2017.

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In connection with the evaluation of the goodwill impairment in the Electronics Assembly/Hybrid reporting unit, the Company assessed tangible and intangible assets for impairment prior to performing the first step of the goodwill impairment test. As a result of this analysis, it was determined that there were no impairment charges to record related to these assets for the three months ended July 1, 2017.

Technology Leadership

We compete largely by offering our customers advanced equipment and expendable tools available for the interconnect processes. We believe our technology leadership contributes to the strong market positions of our ball bonder, wedge bonder and expendable tools products. To maintain our competitive advantage, we invest in product development activities designed to produce improvements to existing products and to deliver next-generation products. These investments often focus as much on improvements in the semiconductor assembly process as on specific pieces of assembly equipment or expendable tools. In order to generate these improvements, we typically work in close collaboration with customers, end users, and other industry members. In addition to producing technical advances, these collaborative development efforts strengthen customer relationships and enhance our reputation as a technology leader and solutions provider.

In addition to gold, silver alloy wire and aluminum wire, our leadership in the industry's use of copper wire for the bonding process is an example of the benefits of our collaborative efforts. By working with customers, material suppliers, and other equipment suppliers, we have developed a series of robust, high-yielding production processes, which have made copper wire widely accepted and significantly reduced the cost of assembling an integrated circuit. Our leadership also has allowed us to maintain a competitive position in the latest generations of gold and copper ball bonders, which enables our customers to handle the leading technologies in terms of bond pad pitch, silicon with the latest node and complex wire bonding requirement. We continue to see demand for our large bondable area ("LA" and "ELA") configured machines. Both LA and ELA option are now available on all of our Power Series models and allow our customers to gain added efficiencies and to reduce the cost of packaging.

We optimize our bonder platforms to deliver variants of our products to serve emerging high-growth markets. For example, we have developed extensions of our main ball bonding platforms (IConn<sup>PS</sup> MEM PLUS) to address opportunities in memory assembly, in particular for NAND Flash storage.

Our leading technology for wedge bonder equipment uses ribbon or heavy wire for different applications such as power electronics, automotive and semiconductor applications. The advanced interconnect capabilities of PowerFusion<sup>PS</sup> improve the processing of high-density power packages, due to an expanded bondable area, wider leadframe capability, indexing accuracy and teach mode. In all cases, we are making a concerted effort to develop commonality of subsystems and design practices, in order to improve performance and design efficiencies. We believe this will benefit us as it increases synergies between the various engineering product groups. Furthermore, we continually research adjacent market segments where our technologies could be used. Many of these initiatives are in the early stages of development and some have yielded results.

Another example of our developing equipment for high-growth niche markets is our AT Premier PLUS. This machine utilizes a modified wire bonding process to mechanically place bumps on devices in a wafer format, for variants of the flip chip assembly process. Typical applications include complementary metal-oxide semiconductor ("CMOS") image sensors, surface acoustical wave ("SAW") filters and high brightness LEDs. These applications are commonly used in most, if not all, smartphones available today in the market. We also have expanded the use of AT Premier PLUS for wafer level wire bonding for micro-electro-mechanical systems ("MEMS") and other sensors.

Our technology leadership and bonding process know-how have enabled us to develop highly function-specific equipment with high throughput and accuracy. This forms the foundation for our advanced packaging equipment development. We established a dedicated team to develop and manufacture advanced packaging bonders for the emerging 2.5 dimensional integrated circuit ("2.5D IC") and 3 dimensional integrated circuit ("3D IC") markets. By reducing the interconnect dimensions, 2.5D ICs and 3D ICs are expected to provide form factor, performance and power efficiency enhancements over traditional flip-chip packages in production today. High-performance processing and memory applications, in addition to mobile devices such as smartphones and tablets, are anticipated to be earlier adopters of this new packaging technology.

We have also broadened our advanced packaging solutions for mass reflow to include flip chip, wafer level packaging ("WLP"), fan-out wafer level packaging ("FOWLP"), advanced package-on-package, embedded die, and System-in-Package ("SiP"). These solutions enable us to diversify our business while further expanding market reach into the automotive, LED lighting, medical and industrial segments with electronic assembly solutions.

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We bring the same technology focus to our expendable tools business, driving tool design and manufacturing technology to optimize the performance and process capability of the equipment in which our tools are used. For all our equipment products, expendable tools are an integral part of their process capability. We believe our unique ability to simultaneously develop both equipment and tools is a core strength supporting our products' technological differentiation.

#### **Products and Services**

The Company operates two segments: Equipment and Expendable Tools. The following tables reflect net revenue by business segment for the three and nine months ended July 1, 2017 and July 2, 2016:

	Three mor	nths ende	d	,
	July 1, 20	17	July 2, 20	16
(dollar amounts in thousands)	Net revenues	% of total net revenue	Net revenues	% of total net revenue
Equipment	\$222,457	91.2 %	\$200,128	92.5 %
Expendable Tools	21,440	8.8 %	16,286	7.5 %
	\$243,897	100.0%	\$216,414	100.0%
	Nine mon		-	
	•		July 2, 20	
(dollar amounts in thousands)	Nat	% of total net revenue	Nat	% of total net revenue
Equipment	\$536,415	90.4 %	\$434,164	90.2 %
Expendable Tools	56,734	9.6 %	47,184	9.8 %
	\$593,149	100.0%	\$481,348	100.0%

# **Equipment Segment**

In our Equipment segment, we manufacture and sell a line of ball bonders, wedge bonders, advanced packaging and electronic assembly solutions that are sold to semiconductor device manufacturers, IDMs, OSATs, other electronics manufacturers and automotive electronics suppliers.

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Our principal Equipment segment products include
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Business Line Product Name (1) Typical Served Market

IConnPS PLUS series (2) Ball bonders

(3)(4)

Advanced and ultra fine pitch applications

IConn<sup>PS</sup> ProCu PLUS

series (2) (3) (4)

High-end copper wire applications demanding advanced process

capability and high productivity

IConnPS MEM PLUS series

(2)(3)(4)

Memory applications

ConnXPS PLUS series (2)

(3)(4)

Bonder for low-to-medium pin count applications

ConnXPS LED PLUS LED applications

Wedge bonders

3600PLUS

Power hybrid and automotive modules using either heavy aluminum wire

or PowerRibbon®

**3700PLUS** Hybrid and automotive modules using thin aluminum wire

PowerFusionPS TL Power semiconductors using either aluminum wire or PowerRibbon®

PowerFusionPS HL Smaller power packages using either aluminum wire or PowerRibbon®

Power hybrid and automotive modules with extended area using heavy Asterion<sup>TM</sup>

and thin aluminum

Asterion<sup>TM</sup> EV Extended area for battery bonding and dual lane hybrid module bonding

Advanced **Packaging** 

**AT Premier PLUS** 

Advanced wafer level bonding application

Thermo-compression for chip-to-substrate, chip-to-chip and high APAMA C2S

accuracy flip chip ("HA FC") bonding applications

Thermo-compression for chip-to-wafer, HA FC and high density fan-out APAMA C2W

wafer level packaging ("HD FOWLP") bonding applications

High performance and productivity die attach bonder for single or stack

die bonding APAMA DA

Advanced packages assembly applications requiring high throughput

such as flip chip, WLP, FOWLP, embedded die, SiP, **Hybrid Series** 

package-on-package ("POP"), and modules

(1) Power Series ("PS")

- (2) Standard version
- (3) Large area version
- (4) Extended large area version

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Business Line	Product Name (1)	Typical Served Market
Electronics Assembly	iX Series	Advanced Surface Mount Technology ("SMT") applications requiring extremely high output of passive and active components
	iFlex Series	Advanced SMT applications requiring multi-lane or line balancing solutions for standard or oddform passive and active components

#### **Ball Bonders**

Automatic ball bonders represent the largest portion of our semiconductor equipment business. Our portfolio of ball bonding products includes:

The IConn<sup>PS</sup> PLUS series: high-performance ball bonders which can be configured for either gold or copper wire. The IConn<sup>PS</sup> ProCu PLUS series: high-performance copper wire ball bonders for advanced wafer nodes at 28 nanometer and below.

The IConn<sup>PS</sup> MEM PLUS series: ball bonders designed for the assembly of stacked memory devices.

 $\textbf{The } ConnX^{PS} \ PLUS \ series: cost-performance \ ball \ bonders \ which \ can \ be \ configured \ for \ either \ gold \ or \ copper \ wire.$ 

The ConnXPS LED PLUS: ball bonders targeted specifically at the fast growing LED market.

Our ball bonders are capable of performing very fine pitch bonding, as well as creating the complex loop shapes needed in the assembly of advanced semiconductor packages and bonding on the latest silicon node-28 nanometer. Most of our installed base of gold wire bonders can also be retrofitted for copper applications through kits we sell separately.

### Wedge Bonders

We design and manufacture wedge bonders for the power semiconductor and automotive markets. Wedge bonders may use either aluminum wire or aluminum ribbon to connect semiconductor chips in power packages, power hybrids and automotive modules for products such as motor control modules or inverters for hybrid cars. In addition, our wedge bonder products can be used in the high reliability interconnections of rechargeable batteries in hybrid and electric automotive applications.

Our portfolio of wedge bonding products includes:

The 3600PLUS: high speed, high accuracy wire bonders designed for power modules, automotive packages and other heavy wire multi-chip module applications.

The 3700PLUS: wire bonders designed for hybrid and automotive modules using thin aluminum wire.

The PowerFusion<sup>PS</sup> Semiconductor Wedge Bonders - Configurable in single, dual and multi-head configurations using aluminum wire and PowerRibbon<sup>TM</sup>:

The PowerFusion<sup>PS</sup> TL: designed for single row leadframe and high volume power semiconductor applications. The PowerFusion<sup>PS</sup> HL and PowerFusion<sup>PS</sup> HLx: designed for advanced power semiconductor applications.

The Asterion<sup>TM</sup> and Asterion<sup>TM</sup> EV: latest generation hybrid wedge bonder designed for larger area, higher speed

and accuracy wedge bonders for power modules, automotive packages, battery applications and other aluminum wedge interconnect applications.

While wedge bonding traditionally utilizes aluminum wire, all of our wedge bonders may be modified to bond aluminum ribbon using our proprietary PowerRibbon® process. Aluminum ribbon offers device makers performance advantages over traditional round wire and is increasingly used for high current packages and automotive applications. Our PowerFusion<sup>PS</sup> series are driven by new powerful direct-drive motion systems and expanded pattern recognition capabilities. PowerFusion<sup>PS</sup> series improve the processing of high-density power packages, due to an expanded bondable area, wider leadframe capability, indexing accuracy and teach mode.