A WORLD OF OPPORTUNITY

2018 ANNUAL REPORT



6 6

OUR VISION

The leading technology and service provider of innovative interconnect solutions enabling a smart future.

OUR COMPANY

As a pioneer in this industry, K&S has provided customers with market-leading packaging solutions for decades. In recent years, K&S has expanded its product offerings through strategic acquisitions and organic development, adding advanced packaging, electronics assembly, wedge bonding and a broader range of expendable tools to its core ball bonding products. Combined with its extensive expertise in process technology, K&S is well positioned to help customers meet the challenges of assembling the nextgeneration semiconductor and LED devices.



FELLOW SHAREHOLDERS

K&S generated another set of solid results throughout 2018 delivering record gross profits and record returns to shareholders. While we are proud of this success and its benefits to customers, suppliers, employees and investors, we are well prepared to further enhance our value creation and delivery into the long term.

The organizational refinements and strategic direction established in fiscal 2017, combined with the identification, pursuit and execution of new development initiatives during fiscal 2018, have created a stimulating working environment for employees and have also provided new long-term growth prospects for the Company. Our aggressive share repurchase activity and inaugural dividend declared in June 2018 illustrate our continuing commitment to deliver value to all of our stakeholders.

EXPANDING OPPORTUNITIES

We continue to execute on several near-term opportunities and also target several longer-term opportunities as we look ahead. Overall, our global team is focused and well positioned to execute on all our initiatives. At the core, our individual business organizations are well aligned with major trends providing new opportunities in automotive, display, connected devices and advanced packaging. Our organizational refinements have further empowered our individual business units to achieve strategic and results-driven goals. These goals are closely aligned with all of our stakeholders' interests. ADVANCED PACKAGING

0/

K&S ADVANCED PACKAGING SERVED O AVAILABLE MARKET; CAGR '17-'21

AUTOMOTIVE

0/0

AUTOMOTIVE SEMICONDUCTORS SUPPORTING ELECTRIFICATION AND ADVANCED DRIVER ASSIST SYSTEMS; CAGR, '17-21

ALIGNED WITH TECHNOLOGY INFLECTIONS

Historic product leadership, aggressive development efforts and organizational improvements have increased access to several unique technology transitions impacting large and established markets.

GLOBAL MARKET INTERNET-OF-THINGS; CAGR '17-'25

CONNECTED DEVICES

-

%

LIGHTING

OF 2021 GLOBAL LIGHTING DEMAND TO BE PROVIDED BY LEDS

Our efforts to refine our business units and development process throughout 2017 have provided meaningful benefits throughout fiscal year 2018 by reducing timeto-market, increasing new project success rates, and expanding our served markets - greatly increasing our potential for financial outperformance. This improved organizational structure provides a solid foundation to pursue several broad, aggressive and diversified strategic initiatives including market share gains in both our largest and most established markets as well as entry into multiple, high-potential growth areas.

Historically, the Company has held a dominant market share position in the broad semiconductor interconnect space and there is still room to grow. Our recent and aggressive development efforts within high-volume, cost-sensitive applications and also those targeting the most performance-centric interconnect applications have increased our value proposition to both customers and shareholders.

As an example of this success, during fiscal 2017 we began to target share gains in the growing LED market. Largely viewed as overly cost sensitive for our premium offerings, our share in LED was significantly below our share in traditional semiconductor applications. This gap was quickly closed, as we developed and introduced market-leading LED tools. Over the course of 2017 and 2018, we shipped more LED tools than we had in the prior six years combined, while maintaining strong gross margins at the corporate level.

In parallel, we continued increasing market exposure in the growing advanced packaging space. This technology inception is demanding new and innovative equipment solutions. In anticipation of this need, we have developed several new tools that provide disruptive and innovative solutions enabling us to extend market reach into the most high-performance memory and logic applications.

While our customers continue to evaluate these highperformance packaging technologies at scale, emerging market opportunities such as artificial intelligence, connected devices, industry 4.0 and autonomous vehicles are increasing the rate of adoption. Our historic relationships with traditional Outsourced Semiconductor Assembly and Test (OSAT) customers and our recent closer engagement with key integrated device manufacturers (IDM), suggest 2019 may be a critical year in driving broader acceptance of these new advanced packaging techniques. Towards the end of fiscal 2018, we released KatalystTM, a high-accuracy, flip-chip tool and also received a major OSAT qualification win for our APAMATM thermocompression solution. In addition to pursuing growth opportunities in our traditional served markets, we are also continually focused on identifying and participating in new high-potential and strategic opportunities in adjacent markets. Our latest new market initiative during fiscal 2018 targets the emerging mini and micro LED display market. We also see the potential for significant disruption in existing markets such as mobility, automotive and potentially general lighting, making this a very interesting prospect. In May 2018, we announced our entry into the mini and micro LED space with a partnership with Rohinni, LLC. A few months later in September 2018, we launched the PIXALUX[™] platform, which provides a fundamentally new and disruptive solution for extreme-speed LED placement.

Again, the entire organization is extremely focused to execute on our new growth prospects and drive continued long-term improvement in our operational results.

VALUE DELIVERY

While we are confident in our collective ability to drive fundamental improvements and execute on new growth opportunities, we are also confident in our ability to deliver value to shareholders in a meaningful and structured way.

Through the close of fiscal year 2018, we cumulatively repurchased 12.6 million outstanding shares – valued at over \$202 million – in open market transactions. This has reduced our shares outstanding by over 16 percent, directly adding value on a per-share basis.

In June of 2018, we initiated a quarterly fixed dividend payment of \$0.12 per share, and subsequently received authorization from our board of directors to extend our repurchase program by an additional \$100 million, bringing our cumulative total authorization to \$300 million.

Over the longer term, we are committed to extending our leadership in the markets we serve, increasing our presence in new markets and ultimately increasing our value on a per-share basis.

We thank you for the support and I look forward to updating you again on our successes throughout 2019.

Sincerely,

FUSEN E. CHEN President and Chief Executive Officer

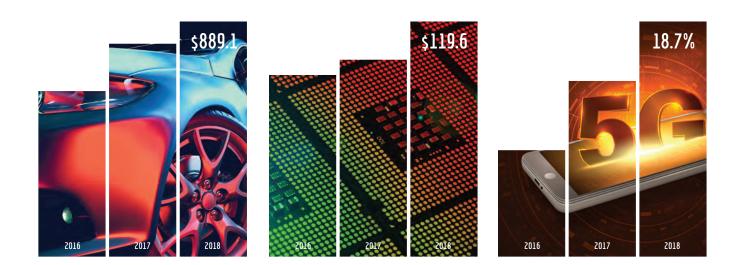
FINANCIAL HIGHLIGHTS

Fiscal Year (in thousands, except per share amounts)	2014	2015	2016	2017	2018
STATEMENT OF OPERATIONS DATA:					
Net revenue	\$568,569	\$ 536,471	\$ 627,192	\$809,041	\$ 889,121
Research and development	83,056	90,033	92,374	100,203	119,621
Selling, general, administrative and misc	104,523	123,322	134,709	133,601	123,188
Impairment charges	0	0	0	35,207	0
Other income (expense)	14,191	12,867	(7,709)	7,584	(120,873)
Net income	\$ 63,864	\$ 51,912	\$ 48,455	\$ 126,099	\$ 56,676
Income (loss) per share, basic	\$ 0.84	\$ 0.69	\$ 0.69	\$ 1.78	\$ 0.82
Income (loss) per share, diluted	\$ 0.83	\$ 0.69	\$ 0.68	\$ 1.75	\$ 0.80
BALANCE SHEET DATA:	•				
Working capital excluding discontinued operations	\$ 746,223	\$624,659	\$654,983	\$ 760,401	\$ 813,197
Property, plant and equipment, net	52,755	53,234	50,342	67,762	76,067
Total assets	944,448	904,466	982,444	1,171,107	1,185,740
Long-term and current portion of financing obligationt	19,616	17,003	17,318	16,769	15,957
Shareholders' equity	\$776,990	\$ 760,912	\$ 799,524	\$920,030	\$880,207
OTHER SELECTED DATA:					
Capital expenditures	\$ 12,401	\$ 9,519	\$ 6,301	\$ 25,688	\$ 20,441
Depreciation and amortization expense	\$ 13,520	\$ 18,972	\$ 16,230	\$ 16,257	\$ 19,015

REVENUE (\$M)

RESEARCH & DEVELOPMENT (\$M)

OPERATING MARGIN



Notes: The financial data presented above should be read in conjunction with the consolidated financial statements, related notes and other financial information included and incorporated by reference herein. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8. "Financial Statements and Supplementary Data" of our Annual Report on Form 10-K for the fiscal year ended September 29, 2018 included herein.

In addition to historical information, this report, including the letter to shareholders, contains statements relating to future events or our future results. These statements are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are subject to the safe harbor provisions created by these statutes. See Item 1A. "Risks Related to Our Business and Industry" and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations' of our Annual Report to n Form 10-K for the fiscal year ended September 29, 2018 for a discussion of important factors that could cause actual results to differ significantly from those expressed or implied by forward-looking statements ontain in this report.

A WORLD OF **OPPORTUNITY**

2018 FORM 10-K



B

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended September 29, 2018

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

(State or other jurisdiction of incorporation)

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

Headquarters, Singapore

×

(Address of principal executive offices)

(215) 784-6000

(Registrants telephone number, including area code)

N/A

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

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

COMMON STOCK, WITHOUT PAR VALUE

(Title of each class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No 🗷

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🗷

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 \boxtimes No \square

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes 🗷 No 🗆

554369

23-1498399

(IRS Employer Identification No.)

(Zip Code)

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. \Box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See 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 \square Non-accelerated filer \square Emerging growth company \square Accelerated filer □ Smaller reporting 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. \Box

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

As of March 31, 2018, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$1,745.4 million based on the closing sale price as reported on The NASDAQ Global Market (reference is made to Part II, Item 5 herein for a statement of assumptions upon which this calculation is based).

As of November 16, 2018 there were 67,171,963 shares of the registrant's common stock, without par value, outstanding.

Documents Incorporated by Reference

Portions of the registrant's Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed on or about January 18, 2019 are incorporated by reference into Part II, Item 5 and Part III, Items 10, 11, 12, 13 and 14 herein of this Report. Such Proxy Statement, except for the parts therein which have been specifically incorporated by reference, shall not be deemed "filed" for the purposes of this Report on Form 10-K.

KULICKE AND SOFFA INDUSTRIES, INC. 2018 Annual Report on Form 10-K September 29, 2018 Index

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PART I

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, increasing, continuing or strengthening, or decreasing or weakening, demand for our 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 tools, spares and services.

Generally, words such as "may," "will," "should," "could," "anticipate," "expect," "intend," "estimate," "plan," "continue," "goal" and "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 this Annual Report on Form 10-K for the fiscal year ended September 29, 2018 (the "Annual Report" or "Form 10-K") and our other reports and registration statements filed from time to time with the Securities and Exchange Commission.

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.

Item 1. BUSINESS

Kulicke and Soffa Industries, Inc. ("We", the "Company" or "K&S") designs, manufactures and sells capital equipment and 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.

K&S was incorporated in Pennsylvania in 1956. Our principal offices are located at 23A Serangoon North Avenue 5, #01-01, Singapore 554369 and our telephone number in the United States is (215) 784-6000. We maintain a website with the address <u>www.kns.com</u>. We are not including the information contained on our website as a part of, or incorporating it by reference into, this filing. We make available free of charge (other than an investor's own Internet access charges) on or through our website our annual reports on Form 10-K, quarterly reports on Form 8-K, and any amendments to these reports, as soon as reasonably practicable after the material is electronically filed with or otherwise furnished to the Securities and Exchange Commission ("SEC"). Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports are also available on the SEC website at <u>www.sec.gov</u> and at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330.

Our year end for each of fiscal 2018, 2017 and 2016 was September 29, 2018, September 30, 2017, and October 1, 2016, respectively.

Key Events in Fiscal 2018

Share Repurchase Program

On July 10, 2018, the Company's Board of Directors increased the share repurchase authorization under the existing share repurchase program (the "Program") by an additional \$100 million. During the fiscal year ended September 29, 2018, the Company repurchased a total of 3.8 million shares of common stock at a cost of \$91.1 million. As of September 29, 2018, our remaining share repurchase authorization under the Program was approximately \$97.7 million.

Dividends

On June 14, 2018, the Board of Directors declared and authorized the initiation of a quarterly dividend. During the fiscal year ended September 29, 2018, the Company declared dividends of \$0.24 per share of common stock. The declaration of any future cash dividend is at the discretion of the Board of Directors and will depend on the Company's financial condition, results of operations, capital requirements, business conditions and other factors, as well as a determination that such dividends are in the best interests of the Company's stockholders.

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 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 Capital Equipment segment is primarily affected by the industry's internal cyclical and seasonal dynamics in addition to broader macroeconomic factors that can positively and 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 Aftermarket Products and Services ("APS") segment has historically been less volatile than our Capital Equipment segment. APS 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 on 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 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 September 29, 2018, our total cash, cash equivalents, restricted cash and short-term investments were \$614.1 million, a \$5.2 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.

Technology Leadership

We compete largely by offering our customers advanced equipment and tools available for the interconnect processes. We believe our technology leadership contributes to the strong market positions of our ball bonder, wedge bonder and 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 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 ball bonders. Gen-S is our smart bonder series and RAPID[™] is the 1st product in the series to address the Industry 4.0 requirements. The key features include Real-time Process & Performance Monitoring, Real-time Equipment Health Monitoring, Advanced Data Analytics & Traceability, Predictive Maintenance Monitoring & Analysis, and Detection & Enhanced Post bond Inspection.

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 Gen-S platform (RAPIDTM MEM) 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^{PS} improve the processing of highdensity 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 will increase 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 such as the AsterionTM hybrid wedge bonder which is built on an enhanced architecture that includes an expanded bond area, new robust pattern recognition capabilities and extremely tight process controls. 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.

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.

We bring the same technology focus to our 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, 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: Capital Equipment and APS. The following table reflects net revenue by segment for fiscal 2018, 2017, and 2016:

	Fiscal											
		20	18		20	17	2016					
(dollar amounts in thousands)	Ne	et revenues	% of total net revenue	Ne	et revenues	% of total net revenue	Ne	t revenues	% of total net revenue			
Capital Equipment	\$	719,390	80.9%	\$	651,934	80.6%	\$	488,925	78.0%			
APS		169,731	9,731 19.1%		157,107	19.4%		138,267	22.0%			
	\$	889,121	100.0%	\$	809,041	100.0%	\$	627,192	100.0%			

See Note 15 to our Consolidated Financial Statements included in Item 8 of this report for our financial results by segment.

Capital Equipment Segment

In our Capital 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.

Our principal Capital Equipment segment products include:

Business Unit	Product Name (1)	Typical Served Market
Ball bonders	IConn ^{<i>PS</i>} <i>PLUS</i> series (2) (3) (4) RAPID	Advanced and ultra fine pitch applications
	IConn ^{ps} ProCu PLUS series (2) (3) (4) RAPID Pro	High-end copper wire applications demanding advanced process capability and high productivity
	IConn ^{PS} MEM <i>PLUS</i> series (2) (3) (4) RAPID MEM	Memory applications
	Conn X^{PS} LED <i>PLUS</i> (2) (3) (4) OptoLux	LED applications
	$ConnX^{PS}$ ELITE (2) (3) (4)	Bonder for discrete and low pin count applications
Wedge bonders	3600 <i>PLUS</i>	Power hybrid and automotive modules using either heavy aluminum wire or PowerRibbon®
	3700 <i>PLUS</i>	Hybrid and automotive modules using thin aluminum wire
	PowerFusion ^{PS} TL PowerFusion ^{PS} HL PowerFusion ^{PS} HLx	Power semiconductors using either aluminum wire or $PowerRibbon$
	Asterion	Power hybrid and automotive modules with extended area using heavy and thin aluminum
	Asterion EV	Extended area for battery bonding and dual lane hybrid module bonding
Advanced Packaging	AT Premier PLUS	Advanced wafer level bonding application
	APAMA C2S	Thermo-compression for chip-to-substrate and chip-to-chip bonding applications
	APAMA C2W	Thermo-compression for chip-to-wafer and high density fan- out wafer level packaging ("HD FOWLP") bonding applications
	iStack	High performance and productivity die attach bonder for single or stack die bonding
	LITEQ 500A LITEQ 500B	Lithographic stepper for the formation of redistribution layer ("RDL") in FOWLP, fan-in wafer level packaging ("FIWLP") and flip chip ("FC")
	Hybrid Series	Advanced packages assembly applications requiring high throughput such as flip chip, WLP, FOWLP, embedded die, SiP, package-on-package ("POP"), and modules
	Katalyst	High performance and high accuracy flip chip bonder
 Power Series ("PS" Standard version Large area versior Extended large area 	í I	

Business Unit	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^{PS} PLUS series and RAPID: high-performance ball bonders which can be configured for either gold or copper wire.
- The IConn^{PS} ProCu PLUS series and RAPID Pro: high-performance copper wire ball bonders for advanced wafer nodes.
- The IConn^{PS} MEM PLUS series and RAPID MEM: ball bonders designed for the assembly of stacked memory devices.
- The ConnX^{PS} PLUS series: cost-performance ball bonders which can be configured for either gold or copper wire.
- The ConnX^{PS} LED PLUS and Optolux: ball bonders targeted specifically at the fast growing LED market.
- ConnX^{PS} ELITE: ball bonders for discrete and low pin count applications.

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.

We also offer an integrated CIS line solution which is an integrated line solution combining our ball bonders and die bonder into a single line along with an oven and buffer. It provides a solution to CMOS Image Sensor manufacturers where the sensors can be attached and wire-bonded onto substrates on the same line before final lens assembly.

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 3600*PLUS*: 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^{PS} Semiconductor Wedge Bonders Configurable in single, dual and multi-head configurations using aluminum wire and PowerRibbonTM:
 - The PowerFusion^{*PS*}TL: designed for single row leadframe and high volume power semiconductor applications.
 - The PowerFusion^{PS} HL and PowerFusion^{PS} HLx: designed for advanced power semiconductor applications.
- The AsterionTM and AsterionTM 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^{*PS*} series is driven by new powerful direct-drive motion systems and expanded pattern recognition capabilities. PowerFusion^{*PS*} series bonders improve the processing of high-density power packages, due to an expanded bondable area, wider leadframe capability, indexing accuracy and teach mode.

Advanced Packaging

Our AT Premier *PLUS* utilize a modified wire bonding process to mechanically place bumps on devices, while still in a wafer format for variants of the flip chip assembly process. Typical applications include CMOS image sensors, SAW filters, MEMS and high brightness LEDs. These applications are commonly used in most, if not all, smartphones available today in the market.

Our APAMA (Advanced Packaging with Adaptive Machine Analytics) C2S (chip-to-substrate) bonder is designed for high accuracy, thermo-compression bonding ("TCB") applications. It delivers die-stacking solutions for 2.5D and 3D or through silicon via ("TSV") ICs.

Our APAMA Chip-to-Wafer ("C2W") bonder enables APAMA's high throughput architecture to be applied to 2.5D and 3D packages using silicon or glass interposers. The C2W dual head system also provides an adaptable manufacturing platform addressing applications which require highly accurate die placement such as High Density FOWLP. The C2W platform, combined with the capacity of the C2S platform, enables the APAMA TCB systems to support assembly for the full range of stacked TSV products.

Our Hybrid series broadens our advanced packaging product offering with solutions for flip chip, WLP, FOWLP, POP, embedded die, SiP and modules markets.

Our iStack provides high-accuracy and high-throughput die attach targeting advanced single and multi-die applications supporting the image sensor, memory as well as other advanced packaging markets.

Our Lithographic stepper is typically used for the formation of RDL in FOWLP, FIWLP and FC.

Our Katalyst[™] flip chip bonder delivers solutions with a focus on productivity, accuracy and speed, advanced capabilities, and ease of use.

Electronic Assembly

Our iX and iFlex series machines enable us to diversify our business with SMT placement technologies, thereby expanding market reach into the automotive, LED lighting, medical and industrial segments with Electronic Assembly solutions.

APS Segment

In our APS segment, we manufacture and sell a variety of tools for a broad range of semiconductor packaging applications. Our principal APS segment products include:

- Capillaries: expendable tools used in ball bonders. Made of ceramic and other elements, a capillary guides the wire during the ball bonding process. Its features help control the bonding process. We design and build capillaries suitable for a broad range of applications, including for use on our competitors' equipment. In addition to capillaries used for gold wire bonding, we have developed capillaries for use with copper wire to achieve optimal performance in copper wire bonding.
- Dicing blades: expendable tools used by semiconductor manufacturers to cut silicon wafers into individual semiconductor die or to cut packaged semiconductor units into individual units.
- Bonding wedges: expendable tools used in heavy wire wedge bonders. Wedge tools are used for both wire and ribbon applications.

We also offer spare parts, equipment repair, maintenance and servicing, training services, refurbishment and upgrades for our equipment.

Our K&S *Care* service is designed to help customers operate their machines at an optimum level under the care of our trained specialists. K&S *Care* includes a range of programs, offering different levels of service depending on customer needs.

Customers

Our major customers include IDMs and OSATs, industrial manufacturers and automotive electronics suppliers. Revenue from our customers may vary significantly from year-to-year based on their respective capital investments, operating expense budgets, and overall industry trends.

The following table reflects our top ten customers, based on net revenue, for each of the last three fiscal years:

	Fiscal 2018		Fiscal 2017		Fiscal 2016
1	Haoseng Industrial Co., Ltd. (1)(2)	1	Haoseng Industrial Co., Ltd. (1)(2)	1	Haoseng Industrial Co., Ltd. (1)(2)
2	ASE Industrial Holding (3)	2	Siliconware Precision Industries Ltd. (3)	2	Siliconware Precision Industries Ltd. (3)
3	Super Power International Ltd (2)	3	Advanced Semiconductor Engineering (3)	3	Advanced Semiconductor Engineering (3)
4	Micron Technology Incorporated	4	Amkor Technology Inc.	4	STATS Chippac Ltd
5	First Technology China, Ltd. (2)	5	Super Power International Ltd (2)	5	Powertech Technology Inc.
6	Tesla Motors	6	Samsung	6	Amkor Technology Inc.
7	Samsung	7	First Technology China, Ltd. (2)	7	Orient Semiconductor Electronics, Ltd.
8	Texas Instruments, Inc.	8	LG Innotek Co. Ltd.	8	First Technology China, Ltd. (2)
9	Xinye Electronics. Co (2)	9	Texas Instruments, Inc.	9	Samsung
10	Infineon Technologies	10	Xinye Electronics. Co (2)	10	Tesla Motors

(1) Represents more than 10% of our net revenue for the applicable fiscal year.

(2) Distributor of our products.

(3) Siliconware Precision Industries Ltd. and Advanced Semiconductor Engineering merged in fiscal 2018 to form ASE Industrial Holding.

Sales and Customer Support

We believe long-term customer relationships are critical to our success, and comprehensive sales and customer support are an important means of establishing those relationships. To maintain these relationships, we primarily utilize our direct sales force, as well as distribution channels such as agents and distributors, depending on the product, region, or end-user application. In all cases, our goal is to position our sales and customer support resources near our customers' facilities so as to provide support for customers in their own language and consistent with local customs. Our sales and customer support resources are located primarily in Singapore, Israel, Taiwan, China, Korea, Malaysia, the Philippines, Japan, Thailand, the U.S., Germany, Mexico, Switzerland and the Netherlands. Supporting these local resources, we have technology centers offering additional process expertise in Singapore, China, Switzerland, Israel, the U.S. and the Netherlands.

By establishing relationships with semiconductor manufacturers, OSATs, and vertically integrated manufacturers of electronic systems, we gain insight into our customers' future semiconductor packaging strategies. In addition, we also send our products and equipment to customers or potential customers for trial and evaluation. These insights assist us in our efforts to develop products and processes that address our customers' future assembly requirements.

Backlog

Our backlog consists of customer orders scheduled for shipment within the next twelve months. A majority of our orders are subject to cancellation or deferral by our customers with limited or no penalties. Also, customer demand for our products can vary dramatically without prior notice. Because of the volatility of customer demand, possibility of customer changes in delivery schedules or cancellations and potential delays in product shipments, our backlog as of any particular date may not be indicative of net revenue for any succeeding period.

The following table reflects our backlog as of September 29, 2018 and September 30, 2017:

	As of				
(in thousands)	September	29, 2018	September 30, 2017		
Backlog	\$	141,665	\$	190,702	

Manufacturing

We believe excellence in manufacturing can create a competitive advantage, both by producing at lower costs and by providing superior responsiveness to changes in customer demand. To achieve these goals, we manage our manufacturing operations through a single organization and believe that fewer, larger factories allow us to capture economies of scale and generate cost savings through lower manufacturing costs.

Our equipment manufacturing activities consist mainly of integrating outsourced parts and subassemblies and testing finished products to customer specifications. We largely utilize an outsource model, allowing us to minimize our fixed costs and capital expenditures. For certain low-volume, high customization parts, we manufacture subassemblies ourselves. Just-in-time inventory management has reduced our manufacturing cycle times and lowered our on-hand inventory requirements. Raw materials used in our equipment manufacturing are generally available from multiple sources; however, many outsourced parts and components are only available from a single or limited number of sources.

Our ball bonder, wedge bonder, AT Premier, APAMA and Katalyst bonder manufacturing and assembly is done at our facility in Singapore. Our Hybrid and Electronic Assembly solutions manufacturing and assembly is done at our facility in the Netherlands. We have ISO 9001 and ISO 14001 certifications for our equipment manufacturing facilities in Singapore and the Netherlands.

We manufacture dicing blades, capillaries and a portion of our bonding wedge inventory at our facility in China. The capillaries are made using blanks produced at our facilities in China and Israel. We both produce and outsource the production of our bonding wedges. Both the China and Israel facilities are ISO 9001 certified. The Suzhou facility is also ISO 14001 and ISO 18001 certified.

Research and Product Development

Many of our customers generate technology roadmaps describing their projected packaging technology requirements. Our research and product development activities are focused on delivering robust production solutions to those projected requirements. We accomplish this by regularly introducing improved versions of existing products or by developing next-generation products. We follow this product development methodology in all our major product lines.

Intellectual Property

Where circumstances warrant, we apply for patents on inventions governing new products and processes developed as part of our ongoing research, engineering, and manufacturing activities. We currently hold a number of U.S. patents, many of which have foreign counterparts. We believe the duration of our patents often exceeds the commercial life cycles of the technologies disclosed and claimed in the patents. Additionally, we believe much of our important technology resides in our trade secrets and proprietary software.

Competition

The market for semiconductor equipment and packaging materials products is intensely competitive. Significant competitive factors in the semiconductor equipment market include price, speed/throughput, production yield, process control, delivery time, innovation, quality and customer support, each of which contribute to lower the overall cost per package being manufactured. Our major equipment competitors are ASM Pacific Technology, BE Semiconductor Industries N.V. and Shinkawa Ltd.

Significant competitive factors in the semiconductor packaging materials industry include performance, price, delivery, product life, and quality. Our significant tools competitors are PECO, Disco Corporation and Small Precision Tools.

In each of the markets we serve, we face competition and the threat of competition from established competitors and potential new entrants, some of which may have greater financial, engineering, manufacturing, and marketing resources.

Environmental Matters

We are subject to various federal, state, local and foreign laws and regulations governing, among other things, the generation, storage, use, emission, discharge, transportation and disposal of hazardous materials and the health and safety of our employees. In addition, we are subject to environmental laws which may require investigation and cleanup of any contamination at facilities we own or operate or at third-party waste disposal sites we use or have used.

We have incurred in the past, and expect in the future to incur costs to comply with environmental laws. We are not, however, currently aware of any material costs or liabilities relating to environmental matters, including any claims or actions under environmental laws or obligations to perform any cleanups at any of our facilities or any third-party waste disposal sites, that we expect to have a material adverse effect on our business, financial condition or operating results. However, it is possible that material environmental costs or liabilities may arise in the future.

Business Continuity Management Plan

We have developed and implemented a global Business Continuity Management Plan ("Plan") for our business operations. The Plan is designed to facilitate the prompt resumption of our business operations and functions arising from an event which impacts or potentially impacts our business operations. As the scale, timing, and impact of disasters and disruptions are unpredictable, the Plan has been designed to be flexible in responding to actual events as they occur. The Plan provides a structured framework for safeguarding our employees and property, making a financial and operational assessment, protecting our books and records, perpetuating critical business functions, and enabling the continuation of customer transactions.

Employees

As of September 29, 2018, we had approximately 2,681 regular full-time employees and 231 temporary workers worldwide.

Item 1A. RISKS RELATED TO OUR BUSINESS AND INDUSTRY

Our operating results and financial condition are adversely impacted by volatile worldwide economic conditions.

Though the semiconductor industry's cycle can be independent of the general economy, global economic conditions may have a direct impact on demand for semiconductor units and ultimately demand for semiconductor capital equipment and tools. Accordingly, our business and financial performance is impacted, both positively and negatively, by fluctuations in the macroeconomic environment. Our visibility into future demand is generally limited and forecasting is difficult. There can be no assurances regarding levels of demand for our products and we believe historic industry-wide volatility will persist.

Unpredictable spending by our customers due to uncertainties in the macroeconomic environment could adversely affect our net revenue and profitability.

We depend upon demand from our customers including IDMs and OSATs, industrial manufacturers and automotive electronics suppliers. Our net revenue and profitability is based upon our customers' anticipated sales. Reductions or other fluctuations in their spending as a result of uncertain conditions in the macroeconomic environment, including from government, economic or fiscal instability, restricted global credit conditions, reduced demand, unbalanced inventory levels, fluctuations in interest rates, higher energy prices, or other conditions, could adversely affect our net revenue and profitability. The impact of general economic slowdowns could make our customers cautious and delay orders until the economic environment becomes clearer.

The semiconductor industry is volatile with sharp periodic downturns and slowdowns. Cyclical industry downturns are made worse by volatile global economic conditions.

Our operating results are significantly affected by the capital expenditures of semiconductor manufacturers, both IDMs and OSATs. Expenditures by our customers depend on the current and anticipated market demand for semiconductors and products that use semiconductors, including mobile devices, personal computers, consumer electronics, telecommunications equipment, automotive components and other industrial products. Significant downturns in the market for semiconductor devices or in general economic conditions reduce demand for our products and can materially and adversely affect our business, financial condition and operating results.

The semiconductor industry is volatile, with periods of rapid growth followed by industry-wide retrenchment. These periodic downturns and slowdowns have adversely affected our business, financial condition and operating results. Downturns have been characterized by, among other things, diminished product demand, excess production capacity, and accelerated erosion of selling prices. Historically these downturns have severely and negatively affected the industry's demand for capital equipment, including assembly equipment and, to a lesser extent, tools. There can be no assurances regarding levels of demand for our products. In any case, we believe the historical volatility of our business, both upward and downward, will persist.

We may experience increasing price pressure.

Typically our average selling prices have declined over time. We seek to offset this decline by continually reducing our cost structure by consolidating operations in lower cost areas, reducing other operating costs, and by pursuing product strategies focused on product performance and customer service. These efforts may not be able to fully offset price declines; therefore, our financial condition and operating results may be materially and adversely affected.

Our quarterly operating results fluctuate significantly and may continue to do so in the future.

In the past, our quarterly operating results have fluctuated significantly. We expect that our quarterly results will continue to fluctuate. Although these fluctuations are partly due to the cyclical and volatile nature of the semiconductor industry, they also reflect other factors, many of which are outside of our control.

Some of the factors that may cause our net revenue and operating margins to fluctuate significantly from period to period are:

- market downturns;
- industry inventory level;
- the mix of products we sell because, for example:
 - certain lines of equipment within our business segments are more profitable than others; and
 - some sales arrangements have higher gross margins than others;
- cancelled or deferred orders;
- seasonality;
- competitive pricing pressures may force us to reduce prices;

- higher than anticipated costs of development or production of new equipment models;
- the availability and cost of the components for our products;
- delays in the development and manufacture of our new products and upgraded versions of our products and market acceptance of these products when introduced;
- customers' delay in purchasing our products due to anticipation that we or our competitors may introduce new or upgraded products; and
- our competitors' introduction of new products.

Many of our expenses, such as research and development, selling, general and administrative expenses, and interest expense, do not vary directly with our net revenue. Our research and development efforts include long-term projects lasting a year or more, which require significant investments. In order to realize the benefits of these projects, we believe that we must continue to fund them even during periods when our revenue has declined. As a result, a decline in our net revenue would adversely affect our operating results as we continue to make these expenditures. In addition, if we were to incur additional expenses in a quarter in which we did not experience comparable increased net revenue, our operating results would decline. In a downturn, we may have excess inventory, which could be written off. Some of the other factors that may cause our expenses to fluctuate from period-to-period include:

- timing and extent of our research and development efforts;
- severance, restructuring, and other costs of relocating facilities;
- inventory write-offs due to obsolescence or other causes; and
- an increase in the cost of labor or materials.

Because our net revenue and operating results are volatile and difficult to predict, we believe consecutive period-to-period comparisons of our operating results may not be a good indication of our future performance.

We may not be able to rapidly develop, manufacture and gain market acceptance of new and enhanced products required to maintain or expand our business.

We believe our continued success depends on our ability to continuously develop and manufacture new products and product enhancements on a timely and cost-effective basis. We must introduce these products and product enhancements into the market in a timely manner in response to customers' demands for higher performance assembly equipment and leading-edge materials customized to address rapid technological advances in integrated circuits, and capital equipment designs. Our competitors may develop new products or enhancements to their products that offer improved performance and features, or lower prices which may render our products less competitive. The development and commercialization of new products require significant capital expenditures over an extended period of time, and some products we seek to develop may never become profitable. In addition, we may not be able to develop and introduce products incorporating new technologies in a timely manner that will satisfy our customers' future needs or achieve market acceptance.

Substantially all of our sales and manufacturing operations are located outside of the U.S., and we rely on independent foreign distribution channels for certain product lines, all of which subject us to risks, including risks from changes in trade regulations, currency fluctuations, political instability and conflicts.

Approximately 92.3%, 92.9%, and 92.4% of our net revenue for fiscal 2018, 2017, and 2016, respectively, was for shipments to customers located outside of the U.S., primarily in the Asia/Pacific region. In the Asia/Pacific region, our customer base is also becoming more geographically concentrated as a result of economic and industry conditions. Approximately 46.0%, 40.0% and 33.7% of our net revenue for the fiscal 2018, 2017, and 2016 was for shipments to customers located in China.

We expect our future performance to depend on our ability to continue to compete in foreign markets, particularly in the Asia/Pacific region. Some of these economies have been highly volatile, resulting in significant fluctuation in local currencies, and political and economic instability. These conditions may continue or worsen, which may materially and adversely affect our business, financial condition and operating results.

We also rely on non-U.S. suppliers for materials and components used in our products, and substantially all of our manufacturing operations are located in countries other than the U.S. We manufacture our ball, wedge and APAMA bonders in Singapore, our Hybrid and Electronic Assembly solutions in the Netherlands, our dicing blades, capillaries and bonding wedges in China and capillary blanks in Israel. In addition, our corporate headquarters is in Singapore and we have sales, service and support personnel in Singapore, Israel, Taiwan, China, Korea, Malaysia, the Philippines, Japan, Thailand, the U.S., Germany, Mexico, Switzerland and the Netherlands. We also rely on independent foreign distribution channels for certain of our product lines. As a result, a major portion of our business is subject to the risks associated with international, and particularly Asia/Pacific, commerce, such as:

- risks of war and civil disturbances or other events that may limit or disrupt manufacturing and markets;
- seizure of our foreign assets, including cash;
- longer payment cycles in foreign markets;
- foreign exchange restrictions and capital controls;
- restrictions on the repatriation of our assets, including cash;
- significant foreign and U.S. taxes on repatriated cash;
- difficulties of staffing and managing dispersed international operations;
- possible disagreements with tax authorities;
- episodic events outside our control such as, for example, outbreaks of influenza or other illnesses;
- natural disasters such as earthquakes, fires or floods;
- tariff and currency fluctuations;
- changing political conditions;
- labor work stoppages and strikes in our factories or the factories of our suppliers;
- foreign governments' monetary policies and regulatory requirements;
- less protective foreign intellectual property laws;
- new laws and regulations; and
- legal systems which are less developed and may be less predictable than those in the U.S.

In addition, there is a potential risk of conflict and instability in the relationship between Taiwan and China. Conflict or instability could disrupt the operations of our customers and/or suppliers in both Taiwan and China. Additionally, our manufacturing operations in China could be disrupted by any conflict.

Our international operations also depend upon favorable trade relations between the U.S. and those foreign countries in which our customers, subcontractors and materials suppliers have operations. A protectionist trade environment in either the U.S. or those foreign countries in which we do business, such as a change in the current tariff structures, export compliance or other trade policies, may materially and adversely affect our ability to sell our products in foreign markets.

Increased labor costs and competition for qualified personnel may reduce the efficiency of our flexible manufacturing model and adversely impact our operating results.

There is some uncertainty with respect to the pace of rising labor costs in the various countries in which we operate. In addition, there is substantial competition in China, Singapore, Israel and the Netherlands for qualified and capable personnel, which may make it difficult for us to recruit and retain qualified employees. If we are unable to staff sufficient personnel at our China, Singapore, Israel and the Netherlands facilities or if there are increases in labor costs that we are unable to recover in our pricing to our customers, we may experience increased manufacturing costs, which would adversely affect our operating results.

We are exposed to fluctuations in currency exchange rates that could negatively impact our financial results and cash flows.

Because most of our foreign sales are denominated in U.S. dollars or Euros, an increase in value of the U.S. dollar or the Euro against foreign currencies will make our products more expensive than those offered by some of our foreign competitors. In addition, a weakening of the U.S. dollar against other currencies other than the Euro could make our costs in non-U.S. locations more expensive to fund. Our ability to compete overseas may therefore be materially and adversely affected by the fluctuations of the U.S. dollar or the Euro against other currencies.

Because nearly all of our business is conducted outside the U.S., we face exposure to adverse movements in foreign currency exchange rates which could have a material adverse impact on our financial results and cash flows. Historically, our primary exposures have related to net working capital exposures denominated in currencies other than the foreign subsidiaries' functional currency, and remeasurement of our foreign subsidiaries' net monetary assets from the subsidiaries' local currency into the subsidiaries functional currency. In general, an increase in the value of the U.S. dollar could require certain of our foreign subsidiaries to record translation and remeasurement gains. Conversely, a decrease in the value of the U.S. dollar could require certain of our foreign subsidiaries to record losses on translation and remeasurement. An increase in the value of the U.S. dollar could require could increase the cost to our customers of our products in those markets outside the U.S. where we sell in U.S. dollars, and a weakened U.S. dollar could increase the cost of local operating expenses and procurement of raw materials, both of which could have an adverse effect on our cash flows. Our primary exposures include the Singapore Dollar, Chinese Yuan, Japanese Yen, Malaysian Ringgit, Swiss Franc, Philippine Peso, Thai Baht, Taiwan Dollar, South Korean Won, Israeli Shekel and Euro. Although

we from time to time have entered into foreign exchange forward contracts to hedge certain foreign currency exposure of our operating expenses, our attempts to hedge against these risks may not be successful and may result in a material adverse impact on our financial results and cash flows.

We may not be able to continue to consolidate manufacturing and other facilities or entities without incurring unanticipated costs and disruptions to our business.

As part of our ongoing efforts to drive further efficiency, we may consolidate our manufacturing and other facilities or entities. Should we consolidate, we may experience unanticipated events, including the actions of governments, suppliers, employees or customers, which may result in unanticipated costs and disruptions to our business.

Our business depends on attracting and retaining management, marketing and technical employees as well as on the succession of senior management.

Our future success depends on our ability to hire and retain qualified management, marketing, finance, accounting and technical employees, including senior management. Experienced personnel with the relevant and necessary skill sets in our industry are in high demand and competition for their talents is intense, especially in Asia, where most of the Company's key personnel are located. If we are unable to continue to attract and retain the managerial, marketing, finance, accounting and technical personnel we require, our business, financial condition and operating results may be materially and adversely affected.

Effective succession planning is also important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving senior management could hinder our strategic planning and execution. From time to time, senior management or other key employees may leave our company. While we strive to reduce the negative impact of such changes, the loss of any key employee could result in significant disruptions to our operations, including adversely affecting the timeliness of product releases, the successful implementation and completion of company initiatives, the effectiveness of our disclosure controls and procedures and our internal control over financial reporting, and the results of our operations. In addition, hiring, training, and successfully integrating replacement critical personnel could be time consuming, may cause additional disruptions to our operations, and may be unsuccessful, which could negatively impact future revenues.

Difficulties in forecasting demand for our product lines may lead to periodic inventory shortages or excesses.

We typically operate our business with limited visibility of future demand. As a result, we sometimes experience inventory shortages or excesses. We generally order supplies and otherwise plan our production based on internal forecasts for demand. We have in the past failed, and may again in the future fail, to accurately forecast demand for our products. This has led to, and may in the future lead to, delays in product shipments or, alternatively, an increased risk of inventory obsolescence. If we fail to accurately forecast demand for our products, our business, financial condition and operating results may be materially and adversely affected.

Alternative packaging technologies may render some of our products obsolete and materially and adversely affect our overall business and financial results.

Alternative packaging technologies have emerged that may improve device performance or reduce the size of an integrated circuit package, as compared to traditional wire bonding. These technologies include flip chip and WLP. Some of these alternative technologies eliminate the need for wires to establish the electrical connection between a die and its package. The semiconductor industry may, in the future, shift a significant part of its volume into alternative packaging technologies which do not employ our products. If a significant shift to alternative packaging technologies to a technology not offered by us were to occur, demand for our equipment and related packaging materials may be materially and adversely affected. Given the lack of a significant alternate revenue stream other than wire bonding, a reduced demand for our equipment could materially and adversely affect our financial results.

Because a small number of customers account for most of our sales, our net revenue could decline if we lose a significant customer.

The semiconductor manufacturing industry is highly concentrated, with a relatively small number of large semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems purchasing a substantial portion of our semiconductor assembly equipment and packaging materials. Sales to a relatively small number of customers have historically accounted for a significant percentage of our net revenue. Sales to our largest customers, which we define as representing more than 10% of our net revenue, comprised 12.8% and 10.1% of our net revenue for fiscal 2018 and fiscal 2017, respectively, and sales to our ten largest customers comprised 53.4% and 47.3% of our net revenue for fiscal 2018 and fiscal 2017, respectively.

We expect a small number of customers will continue to account for a high percentage of our net revenue for the foreseeable future. Thus, our business success depends on our ability to maintain strong relationships with our customers. Any one of a number of factors could adversely affect these relationships. If, for example, during periods of escalating demand for our equipment, we were unable to add inventory and production capacity quickly enough to meet the needs of our customers, they may turn to other suppliers making it more difficult for us to retain their business. If we lose orders from a significant customer, or if a significant customer reduces its orders substantially, these losses or reductions may materially and adversely affect our business, financial condition and operating results.

We maintain a backlog of customer orders that is subject to cancellation, reduction or delay in delivery schedules, which may result in lower than expected revenues.

We manufacture products primarily pursuant to purchase orders for current delivery or to forecast, rather than pursuant to long-term supply contracts. As a result, we must commit resources to the manufacture of products without binding purchase commitments from customers. The semiconductor industry is occasionally subject to double-booking and rapid changes in customer outlooks or unexpected build ups of inventory in the supply channel as a result of shifts in end market demand and macro-economic conditions. Accordingly, many of these purchase orders or forecasts may be revised or canceled without penalty. Even in cases where our standard terms and conditions of sale or other contractual arrangements do not permit a customer to cancel an order without penalty, we may from time to time accept cancellations to maintain customer relationships or because of industry practice, custom or other factors. Our inability to sell products after we devote significant resources to them could have a material adverse effect on both our levels of inventory and revenues. While we currently believe our inventory levels are appropriate for the current economic environment, continued global economic uncertainty may result in lower than expected demand.

We send products and equipment to customers or potential customers for trial, evaluation or other purposes which may result in retrofit charges, impairments or write-down of inventory value if the products and equipment are not subsequently purchased by the customers.

From time to time we send certain products and equipment to customers or potential customers for testing, evaluation or other purposes in advance of receiving any confirmation of purchase or purchase orders. Such equipment may be at the customer location for an extended period of time per the agreements with these customers and potential customers. The customer may refuse to buy all or partial quantities of such product or equipment and return this back to us. As a result, we may incur charges to retrofit the machines or sell the machines as second hand at a lower price, and accordingly may have to record impairments on the returned inventory, all of which would adversely affect our operating results.

Undetected problems in our products could directly impair our financial results.

If flaws in design, production, assembly or testing of our products (by us or our suppliers) were to occur, we could experience a rate of failure in our products that would result in substantial repair, replacement or service costs and potential damage to our reputation. Continued improvement in manufacturing capabilities, control of material and manufacturing quality and costs and product testing are critical factors in our future growth. There can be no assurance that our efforts to monitor, develop, modify and implement appropriate tests and manufacturing processes for our products will be sufficient to permit us to avoid a rate of failure in our products that results in substantial delays in shipment, significant repair or replacement costs or potential damage to our reputation, any of which could have a material adverse effect on our business, results of operations or financial condition.

Costs related to product defect and errata may harm our results of operations and business.

Costs of product defects and errata (deviations from product specifications) due to, for example, problems in our design and manufacturing processes, or those of our suppliers, could include:

• writing off the value of inventory;

- disposing of products that cannot be fixed;
- retrofitting products that have been shipped;
- providing product replacements or modifications; and
- defending against litigation.

These costs could be large and may increase expenses and lower our operating profits. Our reputation with customers or end users could be damaged as a result of product defects and errata, and product demand could be reduced. These factors could harm our business and financial results.

We depend on our suppliers, including sole source suppliers, for critical raw materials, components and subassemblies. If our suppliers do not deliver their products to us, we would be unable to deliver our products to our customers.

Our products are complex and require raw materials, components and subassemblies having a high degree of reliability, accuracy and performance. We rely on subcontractors to manufacture many of these components and subassemblies and we rely on sole source suppliers for certain key technology parts and raw materials. As a result, we are exposed to a number of significant risks, including:

- decreased control over the manufacturing process for components and subassemblies;
- changes in our manufacturing processes in response to changes in the market, which may delay our shipments;
- our inadvertent use of defective or contaminated raw materials;
- the relatively small operations and limited manufacturing resources of some of our suppliers, which may limit their ability to manufacture and sell subassemblies, components or parts in the volumes we require and at acceptable quality levels and prices;
- the inability of suppliers to meet customer demand requirements during volatile cycles;
- reliability or quality issues with certain key subassemblies provided by single source suppliers as to which we may not have any short term alternative;
- shortages caused by disruptions at our suppliers and subcontractors for a variety of reasons, including work stoppage or fire, earthquake, flooding or other natural disasters;
- delays in the delivery of raw materials or subassemblies, which, in turn, may delay shipments to our customers;
- loss of suppliers as a result of consolidation of suppliers in the industry; and
- loss of suppliers because of their bankruptcy or insolvency.

If we are unable to deliver products to our customers on time and at expected cost for these or any other reasons, or we are unable to meet customer expectations as to cycle time, or we are unable to maintain acceptable product quality or reliability, our business, financial condition and operating results may be materially and adversely affected.

Regulations related to "conflict minerals" may force us to incur additional expenses, may make our supply chain more complex and may result in damage to our reputation with customers.

In 2012, under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, the SEC adopted requirements for companies that use certain minerals and metals, known as conflict minerals, in their products, regardless of whether these products are manufactured by third parties. These requirements require companies to conduct due diligence and disclose whether or not such minerals originate from the Democratic Republic of Congo and certain adjoining countries. These requirements could adversely affect the sourcing, availability and pricing of minerals used in the manufacture of semiconductor devices, including our products. In addition, since our supply chain is complex, we may not be able to sufficiently verify the origins for these minerals and metals used in our products through the due diligence procedures that we implement, which may harm our reputation. In such event, we may also face difficulties in satisfying customers who require that all of the components of our products are certified as conflict mineral free.

We may acquire or divest businesses or enter into joint ventures or strategic alliances, which may materially affect our business, financial condition and operating results.

We continually evaluate our portfolio of businesses and may decide to buy or sell businesses or enter into joint ventures or other strategic alliances. We may be unable to successfully integrate acquired businesses with our existing businesses and successfully implement, improve and expand our systems, procedures and controls to accommodate these acquisitions. These transactions place additional demands on our management and current labor force. Additionally, these transactions require significant resources from our legal, finance and business teams. In addition, we may divest existing businesses, which would cause a decline in revenue and

may make our financial results more volatile. If we fail to integrate and manage acquired businesses successfully or to manage the risks associated with divestitures, joint ventures or other alliances, our business, financial condition and operating results may be materially and adversely affected.

The market price of our common shares and our earnings per share may decline as a result of any acquisitions or divestitures.

The market price of our common shares may decline as a result of any acquisitions or divestitures made by us if we do not achieve the perceived benefits of such acquisitions or divestitures as rapidly or to the extent anticipated by financial or industry analysts or if the effect on our financial results is not consistent with the expectations of financial or industry analysts. In addition, the failure to achieve expected benefits and unanticipated costs relating to our acquisitions could reduce our future earnings per share.

We may be unable to continue to compete successfully in the highly competitive semiconductor equipment and packaging materials industries.

The semiconductor equipment and packaging materials industries are very competitive. In the semiconductor equipment industry, significant competitive factors include price, speed/throughput, production yield, process control, delivery time, innovation, quality and customer support. In the semiconductor packaging materials industry, competitive factors include price, delivery and quality.

In each of our markets, we face competition and the threat of competition from established competitors and potential new entrants. In addition, established competitors may combine to form larger, better capitalized companies. Some of our competitors have or may have significantly greater financial, engineering, manufacturing and marketing resources. Some of these competitors are Asian and European companies that have had, and may continue to have, an advantage over us in supplying products to local customers who appear to prefer to purchase from local suppliers, without regard to other considerations.

We expect our competitors to improve their current products' performance, and to introduce new products and materials with improved price and performance characteristics. Our competitors may independently develop technology similar to or better than ours. New product and material introductions by existing competitors or by new market entrants could hurt our sales. If a semiconductor manufacturer or subcontract assembler selects a competitor's product or materials for a particular assembly operation, we may not be able to sell products or materials to that manufacturer or assembler for a significant period of time. Manufacturers and assemblers sometimes develop lasting relationships with suppliers and assembly equipment providers in our industry and often go years without requiring replacement. In addition, we may have to lower our prices in response to price cuts by our competitors, which may materially and adversely affect our business, financial condition and operating results. If we cannot compete successfully, we could be forced to reduce prices and could lose customers and experience reduced margins and profitability.

Our success depends in part on our intellectual property, which we may be unable to protect.

Our success depends in part on our proprietary technology. To protect this technology, we rely principally on contractual restrictions (such as nondisclosure and confidentiality provisions) in our agreements with employees, subcontractors, vendors, consultants and customers and on the common law of trade secrets and proprietary "know-how." We also rely, in some cases, on patent and copyright protection, although this protection may in some cases be insufficient as the duration of our patents often exceeds the commercial life cycles of the technologies disclosed and claimed in the patents due to the rapid development of technology in our industry. We may not be successful in protecting our technology for a number of reasons, including the following:

- employees, subcontractors, vendors, consultants and customers may violate their contractual agreements, and the cost of enforcing those agreements may be prohibitive, or those agreements may be unenforceable or more limited than we anticipate;
- foreign intellectual property laws may not adequately protect our intellectual property rights; and
- our patent and copyright claims may not be sufficiently broad to effectively protect our technology; our patents or copyrights may be challenged, invalidated or circumvented; or we may otherwise be unable to obtain adequate protection for our technology.

In addition, our partners and alliances may have rights to technology developed by us. We may incur significant expense to protect or enforce our intellectual property rights. If we are unable to protect our intellectual property rights, our competitive position may be weakened.

Third parties may claim we are infringing on their intellectual property, which could cause us to incur significant litigation costs or other expenses, or prevent us from selling some of our products.

The semiconductor industry is characterized by rapid technological change, with frequent introductions of new products and technologies. Industry participants often develop products and features similar to those introduced by others, creating a risk that their products and processes may give rise to claims they infringe on the intellectual property of others. We may unknowingly infringe on

the intellectual property rights of others and incur significant liability for that infringement. If we are found to have infringed on the intellectual property rights of others, we could be enjoined from continuing to manufacture, market or use the affected product, or be required to obtain a license to continue manufacturing or using the affected product. A license could be very expensive to obtain or may not be available at all. Similarly, changing or re-engineering our products or processes to avoid infringing the rights of others may be costly, impractical or time consuming.

Occasionally, third parties assert that we are, or may be, infringing on or misappropriating their intellectual property rights. In these cases, we defend, and will continue to defend, against claims or negotiate licenses where we consider these actions appropriate. Intellectual property cases are uncertain and involve complex legal and factual questions. If we become involved in this type of litigation, it could consume significant resources and divert our attention from our business.

We may be materially and adversely affected by environmental and safety laws and regulations.

We are subject to various federal, state, local and foreign laws and regulations governing, among other things, the generation, storage, use, emission, discharge, transportation and disposal of hazardous material, investigation and remediation of contaminated sites and the health and safety of our employees. Increasingly, public attention has focused on the environmental impact of manufacturing operations and the risk to neighbors of chemical releases from such operations.

Proper waste disposal plays an important role in the operation of our manufacturing plants. In many of our facilities we maintain wastewater treatment systems that remove metals and other contaminants from process wastewater. These facilities operate under permits that must be renewed periodically. A violation of those permits may lead to revocation of the permits, fines, penalties or the incurrence of capital or other costs to comply with the permits, including potential shutdown of operations.

Compliance with existing or future, land use, environmental and health and safety laws and regulations may: (1) result in significant costs to us for additional capital equipment or other process requirements, (2) restrict our ability to expand our operations and/or (3) cause us to curtail our operations. We also could incur significant costs, including cleanup costs, fines or other sanctions and third-party claims for property damage or personal injury, as a result of violations of or liabilities under such laws and regulations. Any costs or liabilities to comply with or imposed under these laws and regulations could materially and adversely affect our business, financial condition and operating results.

We have the ability to issue additional equity securities, which would lead to dilution of our issued and outstanding common shares.

The issuance of additional equity securities or securities convertible into equity securities will result in dilution of our existing shareholders' equity interests in us. Our board of directors has the authority to issue, without vote or action of shareholders, preferred shares in one or more series, and has the ability to fix the rights, preferences, privileges and restrictions of any such series. Any such series of preferred shares could contain dividend rights, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences or other rights superior to the rights of holders of our common shares. In addition, we are authorized to issue, without shareholder approval, up to an aggregate of 200 million common shares, of which approximately 67.1 million shares were outstanding as of September 29, 2018. We are also authorized to issue, without shareholder approval, securities convertible into either common shares or preferred shares.

Weaknesses in our internal controls and procedures could result in material misstatements in our financial statements.

Pursuant to the Sarbanes-Oxley Act, management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal controls over financial reporting are processes designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. generally accepted accounting principles. A material weakness is a control deficiency, or combination of control deficiencies, that results in a more than remote likelihood that a material misstatement of annual or interim financial statements will not be prevented or detected.

Our internal controls may not prevent all potential errors or fraud. Any control system, no matter how well designed and implemented, can only provide reasonable and not absolute assurance that the objectives of the control system will be achieved. We or our independent registered public accountants may identify material weaknesses in our internal controls which could adversely affect our ability to ensure proper financial reporting and could affect investor confidence in us and the price of our common shares. We previously disclosed in our Form 10-K/A for the fiscal year ended September 30, 2017, and in our Forms 10-Q and 10 Q/A (as applicable) for each interim period in fiscal 2018, material weaknesses in our internal control over financial reporting in respect of (i) recording and review of manual journal entries related to our warranty accrual and accounts payable and (ii) cash disbursements. Management implemented a number of remediation actions as discussed in Section Item 9A, and has had sufficient time to test the design and operating effectiveness during the three months ended September 29, 2018. As such, management has concluded that the material weaknesses described above were remediated as of September 29, 2018.

Management investigations and restatement of financial statements may require significant management time and attention, result in significant legal expenses or damages and cause our business, financial condition, results of operations and cash flows to suffer.

In connection with an internal investigation related to an unauthorized transaction by a senior finance employee of the Company, which was discovered following our second fiscal quarter of 2018 and which, as discussed in the Form 10-K/A filed on May 31, 2018, has led to the restatement of our financial statements, we have incurred significant accounting and legal fees, as well as the diversion of management's time and attention. We are subject to legal action relating to these matters and may also become subject to regulatory investigations, stockholder demands or other legal actions, which would, regardless of the outcome, consume substantial resources (including management's time and attention) and result in additional legal, accounting, insurance and other costs. The restatement and related matters could also impair our reputation and our ability to comply with certain continued listing standards of NASDAQ. Each of these occurrences, individually or in the aggregate, could have a material adverse effect on our business, results of operations, financial condition, liquidity and stock price.

We may be subject to disruptions or failures in our information technology systems and network infrastructures that could have a material adverse effect on us.

We maintain and rely extensively on information technology systems and network infrastructures for the effective operation of our business. We also hold large amounts of data in data center facilities around the world, primarily in Singapore and the U.S., which our business depends upon. A disruption, infiltration or failure of our information technology systems or any of our data centers as a result of software or hardware malfunctions, computer viruses, cyber-attacks, employee theft or misuse, power disruptions, natural disasters or accidents could cause breaches of data security and loss of critical data, which in turn could materially adversely affect our business. Our security procedures, such as virus protection software and our business continuity planning, such as our disaster recovery policies and back-up systems, may not be adequate or implemented properly to fully address the adverse effect of such events, which could adversely impact our operations. In addition, our business could be adversely affected to the extent we do not make the appropriate level of investment in our technology systems as our technology systems become out-of-date or obsolete and are not able to deliver the type of data integrity and reporting we need to run our business. Furthermore, when we implement new systems and or upgrade existing systems, we could be faced with temporary or prolonged disruptions that could adversely affect our business.

We have experienced, and expect to continue to be subject to, cybersecurity threats and incidents, ranging from employee error or misuse to individual attempts to gain unauthorized access to information systems to sophisticated and targeted measures known as advanced persistent threats, none of which have been material to the Company to date. We devote significant resources to network security and other measures to protect our systems and data from unauthorized access or misuse. However, depending on the nature and scope, cybersecurity incidents could result in business disruption; the misappropriation, corruption or loss of confidential information and critical data (of the Company or that of third parties); reputational damage; litigation with third parties; diminution in the value of our investment in research, development and engineering; data privacy issues; and increased cybersecurity protection and remediation costs.

If the tax holiday arrangements we have negotiated in Singapore change or cease to be in effect or applicable, in part or in whole, for any reason, the amount of corporate income taxes we have to pay could significantly increase.

We have structured our operations to maximize the benefit from tax holidays extended to us in Singapore to encourage investment or employment. We have the Development and Expansion Incentive ("DEI") from Singapore Economic Development Board ("EDB"), an agency of the Government of Singapore, which provides that certain classes of income we earn in Singapore are subject to reduced rates of Singapore income tax. In order to retain the tax benefit, we must meet certain operating conditions, among other things, maintenance of certain global headquarters functions, specified IP activities and specified manufacturing activities in Singapore. The DEI is presently scheduled to expire in 2020 and we are currently in discussion with EDB on renewal and extension of the DEI. Renewals and extensions of the DEI are at the discretion of the Singapore government, and we may not be able to extend the tax incentive arrangement after its expiration on similar terms or at all. We may also elect not to renew or extend this tax incentive arrangement. In the absence of DEI, the corporate income tax rate in Singapore that would otherwise apply would be 17%. The tax incentive is also subject to our compliance with various operating and other conditions. If we cannot, or elect not to, comply with the operating conditions included in the tax incentive, we will lose the related tax benefits. In such event, we could be required to refund material tax benefits previously realized by us with respect to that incentive.

Other Risks

Our ability to recognize tax benefits on future domestic U.S. tax losses and our existing U.S. net operating loss position may be limited.

We have generated net operating loss carry-forwards and other tax attributes for U.S. tax purposes ("Tax Benefits") that can be used to reduce our future federal income tax obligations. Under the Tax Reform Act of 1986, the potential future utilization of our Tax Benefits for U.S. tax purposes may be limited following an ownership change. An ownership change is generally defined as a greater than 50% point increase in equity ownership by 5% shareholders in any three-year period under Section 382 of the Internal Revenue Code. An ownership change may significantly limit our ability to fully utilize our net operating losses which could materially and adversely affect our financial condition and operating results. As of September 29, 2018, we have domestic state net operating loss carryforwards of \$163.8 million, federal tax credit carryforwards of \$1.2 million, and state tax credit carryforwards of \$5.9 million that can reduce future taxable income.

Potential changes to U.S. and foreign tax laws could increase our income tax expense.

We are subject to income taxes in the U.S. and many foreign jurisdictions. Tax authorities in some of the jurisdictions in which we do business, including the U.S., have proposed or announced that they are reviewing tax changes that could potentially increase taxes, and other revenue-raising laws and regulations. It is unclear whether these proposed tax revisions will be enacted, or, if enacted, what the scope of the revisions will be. Changes in U.S. and foreign tax laws, if enacted, could materially and adversely affect our financial condition and operating results.

U.S. federal income tax reform could adversely affect us.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was signed into law. The Act, among other changes, reduces the U.S. federal corporate tax rate from 35% to 21%, implements a modified territorial tax system that includes a one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, and creates new taxes on certain foreign-sourced earnings.

The Company has reflected the income tax effects of the Act for which the accounting under *Accounting Standards Codification Topic 740, Income Taxes* is complete. For those items for which the accounting is not yet complete, but for which a reasonable estimate could be made, we have recorded the provisional tax expense in the Statement of Operations. As of September 29, 2018, there are no material items for which a reasonable estimate of the impact could not be made.

Due to the enactment of this legislation, we recognized a net income tax provision of \$104.6 million, comprised primarily of approximately \$2.8 million from the re-measurement of U.S. deferred tax assets and liabilities using the relevant tax rate at which we expect them to reverse (with a blended U.S. federal corporate tax rate of 24.5% applicable for reversals in fiscal 2018 and 21% applicable for reversals in fiscal 2019 and beyond) and approximately \$101.9 million from the one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, net of uncertain tax positions and foreign tax credits.

We continue to examine the impact of certain provisions of the Act that will become applicable in fiscal year 2019 related to the base erosion anti-abuse tax ("BEAT"), global intangible low-taxed income ("GILTI"), and other provisions that could adversely affect our effective tax rate in the future. The Company will also continue to monitor changes in state and local tax laws to determine if state and local taxing authorities intend to conform or deviate from changes to U.S. federal tax legislation as a result of the Act.

Anti-takeover provisions in our articles of incorporation and bylaws, and under Pennsylvania law may discourage other companies from attempting to acquire us.

Some provisions of our articles of incorporation and bylaws as well as Pennsylvania law may discourage some transactions where we would otherwise experience a fundamental change. For example, our articles of incorporation and bylaws contain provisions that:

- classify our board of directors into four classes, with one class being elected each year;
- permit our board to issue "blank check" preferred shares without shareholder approval; and
- prohibit us from engaging in some types of business combinations with a holder of 20% or more of our voting securities without super-majority board or shareholder approval.

Further, under the Pennsylvania Business Corporation Law, because our shareholders approved bylaw provisions that provide for a classified board of directors, shareholders may remove directors only for cause. These provisions and some other provisions of the Pennsylvania Business Corporation Law could delay, defer or prevent us from experiencing a fundamental change and may adversely affect our common shareholders' voting and other rights.

Terrorist attacks, or other acts of violence or war may affect the markets in which we operate and our profitability.

Terrorist attacks may negatively affect our operations. There can be no assurance that there will not be further terrorist attacks against the U.S. or U.S. businesses. Terrorist attacks or armed conflicts may directly impact our physical facilities or those of our suppliers or customers. Our primary facilities include administrative, manufacturing, sales and research and development facilities in Singapore, manufacturing and research and development facilities in the Netherlands, China, and Israel and sales and research and development facilities in the U.S. Additional terrorist attacks may disrupt the global insurance and reinsurance industries with the result that we may not be able to obtain insurance at historical terms and levels for all of our facilities. Furthermore, additional attacks may make travel and the transportation of our supplies and products more difficult and more expensive and ultimately affect the sales of our products in the U.S. and overseas. Additional attacks or any broader conflict, could negatively impact our domestic and international sales, our supply chain, our production capability and our ability to deliver products to our customers. Political and economic instability in some regions of the world could negatively impact our business. The consequences of terrorist attacks or armed conflicts are unpredictable, and we may not be able to foresee events that could have an adverse effect on our business.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

The following table reflects our major facilities as of September 29, 2018:

Facility (1)	Approximate Size	Function	Business Segment and Products Manufactured	Lease Expiration Date
Singapore	198,000 sq. ft.	Corporate headquarters, manufacturing, technology, sales and service center	Capital Equipment: ball and wedge bonders, advanced packaging and AT Premier	November 2043 (2)
Suzhou, China	191,000 sq. ft.	Manufacturing, technology and shared support services center	APS: capillaries, dicing blades and bonding wedges	Owned
Eindhoven, Netherlands	105,000 sq. ft.	Manufacturing, technology, sales and service center	Capital Equipment: Advanced Packaging and Electronics Assembly	September 2025 (3)
Fort Washington, Pennsylvania	88,000 sq. ft.	Technology, sales and service center	Not applicable	Owned
Santa Ana, California	65,000 sq. ft.	Technology, sales and service center	Not applicable	August 2036 (4)
Haifa, Israel	29,000 sq. ft.	Manufacturing and technology center	APS: capillary blanks (semi-finish)	October 2037 (5)

Durain and Comment and

- (1) Each of the facilities listed in this table is leased other than the facility in Suzhou, China and Fort Washington, Pennsylvania
- (2) Includes lease extension periods at the Company's option. Initial lease expires in November 2023.
- (3) Includes lease extension periods at the Company's option. Initial lease expires in September 2020.
- (4) Includes lease extension periods at the Company's option. Initial lease expires in September 2026.
- (5) Includes lease extension periods at the Company's option. Initial lease expires in October 2027.

In addition, the Company rents space for sales and service offices and administrative functions in China, Germany, Japan, Malaysia, South Korea, Switzerland, Taiwan, Thailand and the Philippines. The Company believes the facilities are generally in good condition and suitable to the extent of utilization needed.

Item 3. LEGAL PROCEEDINGS

From time to time, we may be a plaintiff or defendant in cases arising out of our business. We cannot be assured of the results of any pending or future litigation, but we do not believe resolution of these matters will materially or adversely affect our business, financial condition or operating results.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on The Nasdaq Global Market ("Nasdaq") under the symbol "KLIC." On November 16, 2018, there were approximately 206 holders of record of the shares of outstanding common stock.

On June 14, 2018, the Board of Directors declared and authorized the initiation of a quarterly dividend. During the year ended September 29, 2018, the Company declared dividends of \$0.24 per share of common stock. The declaration of any future cash dividend is at the discretion of the Board of Directors and will depend on the Company's financial condition, results of operations, capital requirements, business conditions and other factors, as well as a determination that such dividends are in the best interests of the Company's stockholders.

For the purpose of calculating the aggregate market value of shares of our common stock held by non-affiliates, as shown on the cover page of this report, we have assumed all of our outstanding shares were held by non-affiliates except for shares held by our directors and executive officers. However, this does not necessarily mean that all directors and executive officers of the Company are, in fact, affiliates of the Company, or there are no other persons who may be deemed to be affiliates of the Company. Further information concerning the beneficial ownership of our executive officers, directors and principal shareholders will be included in our Proxy Statement for the 2019 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission on or about January 18, 2019.

Recent Sales of Unregistered Securities and Use of Proceeds

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table summarizes the repurchases of common stock during the three months ended September 29, 2018 (in thousands, except per share amounts):

Period	Total Number of Shares Purchased	P	Average rice Paid er Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs ⁽¹⁾		
July 1, 2018 to July 28, 2018	439	\$	25.87	439	\$	110,069	
July 29, 2018 to September 1, 2018	240	\$	26.37	240	\$	103,745	
September 2, 2018 to September 29, 2018	243	\$	24.87	243	\$	97,692	
For the three months ended September 29, 2018	922	-		922			

(1) On August 15, 2017, the Company announced that its Board of Directors approved a share repurchase program (the "Program") that authorizes the repurchase of up to \$100 million of the Company's common shares, from time to time over the three year period ending August 1, 2020. The Company may purchase shares of its common stock through open market and privately negotiated transactions at prices deemed appropriate by management. 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 will be funded using the Company's available cash, cash equivalents and short-term investments. The timing and amount of repurchase transactions under the Program depend on market conditions as well as corporate and regulatory considerations. On July 10, 2018, the Company's Board of Directors increased the share repurchase authorization under the Program by an additional \$100 million.

Item 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following tables reflect selected historical consolidated financial data derived from the consolidated financial statements of Kulicke and Soffa Industries, Inc. and subsidiaries as of and for each of the five fiscal years ended 2018, 2017, 2016, 2015, and 2014. As previously reported on the Annual Report on Form 10-K/A for the fiscal year ended September 30, 2017, the Company restated certain of its financial statements and related notes for the fiscal years ended September 30, 2017, October 1, 2016 and October 3, 2015. This annual report for the year ended September 29, 2018 reflects the restated numbers for those periods.

This data should be read in conjunction with our consolidated financial statements, including notes and other financial information included elsewhere in this report in respect of the fiscal years identified in the column headings of the tables below.

	Fiscal									
(in thousands)		2018		2017		2016		2015		2014
Statement of Operations Data:										
Net revenue	\$	889,121	\$	809,041	\$	627,192	\$	536,471	\$	568,569
Income from operations		166,632		113,083		53,953		38,591		77,906
Interest income, net		10,917		5,432		2,211		454		149
Income before income tax		177,549		118,515		56,164		39,045		78,055
Income tax expense / (benefit) ⁽¹⁾		120,744		(7,394)		7,709		(12,867)		14,191
Share of results of equity-method investee, net of tax		129		(190)						
Net income	\$	56,676	\$	126,099	\$	48,455	\$	51,912	\$	63,864
						Fiscal	_			
		2018		2017		2016		2015		2014
Per Share Data:										
Net income per share:										
Basic	\$	0.82	\$	1.78	\$	0.69	\$	0.69	\$	0.84
Diluted	\$	0.80	\$	1.75	\$	0.68	\$	0.69	\$	0.83
Cash dividends declared per share	\$	0.24	\$	—	\$	_	\$	—	\$	
Weighted average shares outstanding:										
Basic		69,380		70,906		70,477		75,414		76,396
Diluted		70,419		72,063		70,841		75,659		77,292
						Fiscal				
(in thousands)		2018		2017		2016		2015		2014
Balance Sheet Data:										
Cash, cash equivalents and short-term investments	\$	614,148	\$	608,410	\$	547,907	\$	498,614	\$	597,086
Working capital		813,197		760,401		654,983		624,659		746,223
Total assets		1,185,740		1,171,107		982,444		904,466		944,448
Long-term and current portion of financing obligation		15,957		16,769		17,318		17,003		19,616
Shareholders' equity		880,207		920,030		799,524		760,912		776,990

(1) The following are there most significant factors that affected our provision for income taxes: volatility in our earnings each fiscal year and variation in earnings among various tax jurisdictions in which we operate; changes in assumptions regarding repatriation of earnings; changes in tax legislation; and our provision for various tax exposure items.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

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 "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, increasing, continuing or strengthening, or decreasing or weakening, demand for our 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 tools, spares and services.

Generally, words such as "may," "will," "should," "could," "anticipate," "expect," "intend," "estimate," "plan," "continue," "goal" and "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 this Annual Report on Form 10-K (the "Annual Report" or "Form 10-K") and our other reports and registration statements filed from time to time with the Securities and Exchange Commission.

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 statements. Given those risks and uncertainties, investors should not place undue reliance on forward-looking statements as predictions of actual results.

Our Management's Discussion and Analysis ("MD&A") is provided in addition to the accompanying consolidated financial statements and notes to assist readers in understanding our results of operations, financial condition, and cash flows. MD&A is organized as follows:

- Overview: Introduction of our operations, key events, business environment, technology leadership, products and services
- Critical Accounting Policies
- Recent Accounting Pronouncements
- Results of Operations
- Liquidity and Capital Resources
- Other Obligations and Contingent Payments

Overview

For an overview of our business, see "Part I - Item 1. - Business"

Critical Accounting Policies

The preparation of consolidated financial statements requires us 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 financial statements. On an ongoing basis, we evaluate 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. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable. As a result, we make judgments regarding the carrying values of our 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, we evaluate these estimates. Actual results may differ from these estimates.

We believe the following critical accounting policies, which have been reviewed with the Audit Committee of our Board of Directors, reflect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

In accordance with ASC No. 605, *Revenue Recognition*, we recognize 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. Services revenue is generally recognized over the period that the services are provided.

Our business is subject to contingencies related to customer orders, including:

- *Right of Return*: A large portion of our revenue comes from the sale of machines used in the semiconductor assembly process. Other product sales relate to consumable products, which are sold in high-volume quantities, and are generally maintained at low stock levels at our customer's facility. Customer returns have historically represented a very small percentage of customer sales on an annual basis.
- Warranties: Our equipment is generally shipped with a one-year warranty against manufacturing defects. We establish
 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 expenses, including product parts
 replacement, freight charges and labor costs expected to be incurred to correct product failures during the warranty period.
- *Conditions of Acceptance:* Sales of our consumable products generally do not have customer acceptance terms. In certain cases, sales of our equipment have customer acceptance clauses which may require the equipment to perform in accordance with customer specifications or when installed at the customer's facility. In such cases, if the terms of acceptance are satisfied at our facility prior to shipment, the revenue for the equipment will be recognized upon shipment. If the terms of acceptance, which is typically obtained after installation and testing, is received from the customer.

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

Allowance for Doubtful Accounts

We maintain allowances for doubtful accounts for estimated losses resulting from our customers' failure to make required payments. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. We are 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 we do business, it could have a significant impact on our results of operations, and our ability to realize the full value of our accounts receivable.

Inventories

Inventories are stated at the lower of cost (on a first-in first-out basis) or net realizable value. We generally provide 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 tools. Forecasted consumption is based upon internal projections, historical sales volumes, customer order activity and a review of consumable inventory levels at customers' facilities. We communicate forecasts of our future consumption to our suppliers and adjust commitments to those suppliers accordingly. If required, we reserve the difference between the carrying value of our 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.

Accounting for Impairment of Goodwill

ASC No. 350, *Intangibles-Goodwill and Other* ("ASC 350") requires goodwill and 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 fiscal 2018 and 2017, the Company chose to bypass the qualitative assessment and proceed directly to performing the quantitative evaluation of the fair value of the reporting unit, to compare against the carrying value of the reporting unit.

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 intangible assets, see Note 5 to our consolidated financial statements in Item 8.

Income Taxes

In accordance with ASC No. 740, Income Taxes, deferred income taxes are determined using the balance sheet method. The Company records a valuation allowance to reduce our deferred tax assets to the amount we expect is more likely than not to be realized. While the Company has considered future taxable income and our 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 such determination is made. Likewise, should the Company determine that 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 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 us to determine if the weight of available evidence indicates a tax position is more likely than not to be sustained upon examination solely based on its technical merit. 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, including resolution of related appeals or litigation process, if any.

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 Relative TSR Performance Share Units is determined using a Monte-Carlo valuation model, and compensation expense associated with time-based and Special/Growth Performance Share Units is determined based on the number of shares granted and the fair value on the date of grant. See Note 11 for a summary of the terms of these performance-based awards. The fair value of the Company's stock option awards are estimated using a Black-Scholes option valuation model. 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.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 1 to our consolidated financial statements in Item 8 for a description of certain recent accounting pronouncements including the expected dates of adoption and effects on our consolidated results of operations and financial condition. **RESULTS OF OPERATIONS**

Results of Operations for fiscal 2018 and 2017

The following table reflects our income from operations for fiscal 2018 and 2017:

		Fi	scal		_			
(dollar amounts in thousands)	2018			2017	\$ Change		% Change	
Net revenue	\$	889,121	\$	809,041	\$	80,080	9.9 %	
Cost of sales		479,680		426,947		52,733	12.4 %	
Gross profit		409,441		382,094		27,347	7.2 %	
Selling, general and administrative		123,188		133,601		(10,413)	(7.8)%	
Research and development		119,621		100,203		19,418	19.4 %	
Impairment charges				35,207		(35,207)	N/A	
Operating expenses		242,809		269,011		(26,202)	(9.7)%	
Income from operations	\$	166,632	\$	113,083	\$	53,549	47.4 %	

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Bookings and Backlog

Our backlog consists of customer orders scheduled for shipment within the next twelve months. A booking is recorded when a customer order is reviewed and it is determined that all specifications can be met, production (or service) can be scheduled, a delivery date can be set, and the customer meets our credit requirements. We use bookings to evaluate the results of our operations, generate future operating plans and assess the performance of our company. While we believe that this measure is useful in evaluating our business, this information should be considered as supplemental in nature and is not meant as a substitute for revenue recognized in accordance with GAAP. In addition, other companies, including companies in our industry, may calculate bookings differently or not at all, which reduces its usefulness as a comparative measure. Reconciliation of bookings to net revenue is not practicable. A majority of our orders are subject to cancellation or deferral by our customers with limited or no penalties. Also, customer demand for our products can vary dramatically without prior notice. Because of the volatility of customer demand, possibility of customer changes in delivery schedules or cancellations and potential delays in product shipments, our backlog as of any particular date may not be indicative of net revenue for any succeeding period.

The following tables reflect our bookings and backlog for fiscal 2018 and 2017:

		Fiscal									
(in thousands)	2	2018 2017									
Bookings	\$	840,083	\$	912,549							
		As of									
(in thousands)	Septemb	er 29, 2018	Septer	nber 30, 2017							
Backlog	\$	141,665	\$	190,702							

Our net revenues for fiscal 2018 increased as compared to our net revenues for fiscal 2017 due to strong customer demand. The semiconductor industry is volatile and our operating results have fluctuated significantly in the past. Customer demand for our products could weaken and lead to a decline in our net revenues.

Net Revenue

Approximately 92.3% and 92.9% of our net revenue for fiscal 2018 and 2017, respectively, was for shipments to customer locations outside of the U.S., primarily in the Asia/Pacific region. In the Asia/Pacific region, our customer base is also becoming more geographically concentrated as a result of economic and industry conditions. Approximately 46.0% and 40.0% of our net revenue for fiscal 2018 and 2017, respectively, was for shipments to customers located in China.

The following table reflects net revenue by business segment for fiscal 2018 and 2017:

	 Fi	scal			
(dollar amounts in thousands)	 2018		2017	\$ Change	% Change
Capital Equipment	\$ 719,390	\$	651,934	\$ 67,456	10.3%
APS	169,731		157,107	12,624	8.0%
Total net revenue	\$ 889,121	\$	809,041	\$ 80,080	9.9%

Capital Equipment

The following table reflects the components of Capital Equipment net revenue change between fiscal 2018 and 2017:

(in thousands)		Price	Volume		\$ Change
Capital Equipment	\$	(11,359)	5 78,815	\$	67,456

For fiscal 2018, the higher Capital Equipment net revenue as compared to fiscal 2017 was primarily due to higher volume. The higher sales volume was primarily due to growing market demand in consumer, enterprise, automotive and industrial applications. The higher sales volume was partially offset by unfavorable price variance. The unfavorable price variance was primarily due to competition in the IC and LED markets as well as changes in product mix where the proportion of sales in LED market is higher in fiscal 2018 as compared to fiscal 2017.

APS

The following table reflects the components of APS net revenue change between fiscal 2018 and 2017:

	 Fis	cal 2018 vs. 201	7	
(in thousands)	Price	Volume		\$ Change
APS	\$ (1,428)	14,052	\$	12,624

For fiscal 2018, the higher APS net revenue as compared to prior year period was primarily due to higher contribution from capillaries, spares and services and wedge bonder consumables and partially offset by price reduction in capillaries.

Gross Profit

The following table reflects gross profit by business segment for fiscal 2018 and 2017:

	 Fis	_			
(dollar amounts in thousands)	 2018	2017	_	\$ Change	% Change
Capital Equipment	\$ 315,939	\$ 291,166	\$	24,773	8.5%
APS	93,502	90,928		2,574	2.8%
Total gross profit	\$ 409,441	\$ 382,094	\$	27,347	7.2%

The following table reflects gross profit as a percentage of net revenue by business segment for fiscal 2018 and 2017:

	Fiscal		
	2018	2017	Basis point change
Capital Equipment	43.9%	44.7%	(80)
APS	55.1%	57.9%	(280)
Total gross margin	46.1%	47.2%	(110)

Capital Equipment

The following table reflects the components of Capital Equipment gross profit change between fiscal 2018 and 2017:

	Fiscal 2018 vs. 2017						
(in thousands)		Price	Cost		Volume		\$ Change
Capital Equipment	\$	(11,359) \$	11,507	\$	24,625	\$	24,773

For fiscal 2018, the higher Capital Equipment gross profit as compared to fiscal 2017 was primarily due to higher volume and lower cost. The higher sales volume was primarily due to growing market demand in consumer, enterprise, automotive and industrial applications. The lower cost was primarily due to changes in product mix. The higher sales volume and lower cost were partially offset by unfavorable price variance primarily due to competition in IC and LED markets as well as changes in product mix.

APS

The following table reflects the components of APS gross profit change between fiscal 2018 and 2017:

			Fiscal 2018	3 vs. 2017		
(in thousands)		\$ Change				
APS	\$	(1,428) \$	(194)	\$ 4,196	\$	2,574

For fiscal 2018, the higher APS Gross Profit as compared to prior year period was primarily due to higher contribution from capillaries, spares and services, wedge bonder consumables and partially offset by price reduction in capillaries.

Operating Expenses

The following table reflects operating expenses as a percentage of net revenue for fiscal 2018 and 2017:

	Fiscal		
	2018	2017	Basis point change
Selling, general and administrative	13.9%	16.5%	(260)
Research and development	13.5%	12.4%	110
Impairment charges	%	4.4%	(440)
Total	27.4%	33.3%	(590)

Selling, General and Administrative ("SG&A")

For fiscal 2018, lower SG&A as compared to fiscal 2017 was primarily due to \$7.8 million lower staff costs driven by a decrease in incentive compensation, \$3.2 million net favorable variance in foreign exchange and \$2.5 million lower severance. These were partially offset by inclusion of \$3.1 million from our Lithography business, which was acquired in fiscal 2017.

Research and Development ("R&D")

For fiscal 2018, higher R&D expenses as compared to fiscal 2017 was primarily due to higher staff costs, higher investment in the development of Advanced Packaging products and inclusion of R&D expenses from our Lithography business, which was acquired in fiscal 2017.

Impairment Charges

In fiscal 2017, the Company recognized a non-cash impairment charge related to goodwill in the EA/APMR (former Assembléon) reporting unit. See Note 5 "Goodwill and Intangible Assets" of the accompanying consolidated financial statements for further information.

Income from Operations

For fiscal 2018, total income from operations was higher by \$53.5 million as compared to fiscal 2017. This was primarily due to the absence of impairment charges recognized in fiscal 2017 and higher contribution from higher revenue in fiscal 2018.

Interest Income and Expense

The following table reflects interest income and interest expense for fiscal 2018 and 2017:

	Fis			
(dollar amounts in thousands)	2018	2017	\$ Change	% Change
Interest income	\$ 11,971	\$ 6,491	\$ 5,480	84.4 %
Interest expense	\$ (1,054)	\$ (1,059)	\$ 5	(0.5)%

For fiscal 2018, interest income was higher as compared to fiscal 2017. This was primarily due to higher interest rates and a larger average cash, cash equivalents and short-term investments balance.

Interest expense for fiscal 2018 and 2017 was attributable to the interest on financing obligation relating to the building, which was incurred subsequent to the completion of the building in December 2013 (Refer to Note 10 of our Consolidated Financial Statements included in Item 8 of this report).

Provision for Income Taxes

The following table reflects the provision for income taxes and the effective tax rate for fiscal 2018 and 2017:

	Fiscal						
(in thousands)		2018		2017			
Income tax expense / (benefit)	\$	120,744	\$	(7,394)			
Effective tax rate		68.0%)	(6.2)%			

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was signed into law. The Act, among other changes, reduces the U.S. federal corporate tax rate from 35% to 21%, implements a modified territorial tax system that includes a one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, and creates new taxes on certain foreign-sourced earnings.

As a result of the enactment of this legislation, in fiscal 2018, the Company recognized a net income tax provision of \$104.6 million, comprised primarily of approximately \$2.8 million from the remeasurement of U.S. deferred tax assets and liabilities using the relevant tax rate at which we expect them to reverse in the future and approximately \$101.9 million from the one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, net of uncertain tax positions and foreign tax credits.

Additionally, while the Company may repatriate up to \$100 million of cash held by foreign subsidiaries that has already been subject to U.S. tax to facilitate the repurchase of the Company's common stock under the share repurchase program, the Company continues to consider the remainder of the earnings of certain foreign subsidiaries to be permanently reinvested outside the United States. (Refer to Note 13 of our Consolidated Financial Statements included in Item 8 of this report).

For fiscal 2018, the effective income tax rate differed from the federal statutory tax rate primarily due to tax expense related to the enactment of the Act, foreign withholding taxes, deemed dividends, and tax liabilities from foreign operations, partially offset by profits generated in foreign operations subject to a lower statutory tax rate than the federal rate, the impact of tax holidays, tax benefits from domestic research credit, and foreign tax credit.

During fiscal 2017, the Company elected to adopt the foreign tax credit for its U.S. federal tax return filings. As a result of this election, the Company has amended its U.S. tax returns from 2006 through 2015, filed its 2016 return on the same basis, and accrued the benefit for 2017. Due to this tax position, the Company recorded foreign tax credits of approximately \$26.1 million which resulted in a decrease of our effective tax rate from fiscal 2016.

For fiscal 2017, the effective tax rate differed from the federal statutory tax rate primarily due to tax benefits from electing to claim foreign tax credits, profits generated in foreign operations subject to a lower statutory tax rate than the U.S. federal rate, domestic research tax credit, and the impact of tax holidays, partially offset by an increase for deferred taxes on unremitted earnings, deemed dividends, foreign withholding taxes, tax liabilities from foreign operations, and non-deductible goodwill impairment.

Our future effective tax rate would be affected if earnings were lower than anticipated in countries where we are subjected to lower statutory rates and higher than anticipated in countries where we are subjected to higher statutory rates, by changes in the valuation of our 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.

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. We cannot practicably estimate the financial outcomes of these examinations.

Results of Operations for fiscal 2017 and 2016

The following table reflects our income from operations for fiscal 2017 and 2016:

	Fiscal						
(dollar amounts in thousands)		2017		2016	9	S Change	% Change
Net revenue	\$	809,041	\$	627,192	\$	181,849	29.0 %
Cost of sales		426,947		346,156		80,791	23.3 %
Gross profit		382,094		281,036		101,058	36.0 %
Selling, general and administrative		133,601		134,709		(1,108)	(0.8)%
Research and development		100,203		92,374		7,829	8.5 %
Impairment charges		35,207		—		35,207	N/A
Operating expenses		269,011		227,083		41,928	18.5 %
Income from operations	\$	113,083	\$	53,953	\$	59,130	109.6 %

Bookings and Backlog

The following tables reflect our bookings and backlog for fiscal 2017 and 2016:

		Fis	scal				
(in thousands)	2	2017					
Bookings	\$	912,549	\$	661,931			
		As of					
(in thousands)	Septemb	September 30, 2017 October 1, 2016					
Backlog	\$	190,702	\$	87,200			

Our net revenues for fiscal 2017 increased as compared to our net revenues for fiscal 2016 due to strong customer demand. The semiconductor industry is volatile and our operating results have fluctuated significantly in the past. Customer demand for our products could weaken and lead to a decline in our net revenues.

Net Revenue

Approximately 92.9% and 92.4% of our net revenue for fiscal 2017 and 2016, respectively, was for shipments to customer locations outside of the U.S., primarily in the Asia/Pacific region. In the Asia/Pacific region, our customer base is also becoming more geographically concentrated as a result of economic and industry conditions. Approximately 40.0% and 33.7% of our net revenue for fiscal 2017 and 2016, respectively, was for shipments to customers located in China.

The following table reflects net revenue by business segment for fiscal 2017 and 2016:

	Fiscal				_		
(dollar amounts in thousands)		2017		2016		\$ Change	% Change
Capital Equipment	\$	651,934		488,925	\$	163,009	33.3%
APS		157,107		138,267		18,840	13.6%
Total net revenue	\$	809,041	\$	627,192	\$	181,849	29.0%

Capital Equipment

The following table reflects the components of Capital Equipment net revenue change between fiscal 2017 and 2016:

	 Fiscal 2017 vs. 2016				
(in thousands)	Price	Volume		\$ Change	
Capital Equipment	\$ (11,337) \$	174,346	\$	163,009	

For fiscal 2017, the higher Capital Equipment net revenue as compared to fiscal 2016 was primarily due to the higher volume. The higher sales volume was primarily due to growing market demand in consumer, enterprise, automotive and industrial applications partially offset by lower demand for our Hybrid products in the SiP market. The higher sales volume was partially offset by unfavorable price variance due to price reduction.

APS

The following table reflects the components of APS net revenue change between fiscal 2017 and 2016:

	 Fiscal 2017 vs. 2016				
(in thousands)	Price	Volume		\$ Change	
APS	\$ (4,385)	\$ 23,225	\$	18,840	

For fiscal 2017, the higher APS net revenue as compared to fiscal 2016 was primarily due to higher sales in tools. This was partially offset by price reduction.

Gross Profit

The following table reflects gross profit by business segment for fiscal 2017 and 2016:

	Fiscal						
(dollar amounts in thousands)		2017		2016		\$ Change	% Change
Capital Equipment	\$	291,166	\$	198,298	\$	92,868	46.8%
APS		90,928		82,738		8,190	9.9%
Total gross profit	\$	382,094	\$	281,036	\$	101,058	36.0%

The following table reflects gross profit as a percentage of net revenue by business segment for fiscal 2017 and 2016:

	Fisca		
	2017	2016	Basis Point Change
Capital Equipment	44.7%	40.6%	410
APS	57.9%	59.8%	(190)
Total gross margin	47.2%	44.8%	240

Capital Equipment

The following table reflects the components of Equipment gross profit change between fiscal 2017 and 2016:

	Fiscal 2017 vs. 2016					
(in thousands)	 Price	Cost		Volume		\$ Change
Capital Equipment	\$ (11,337) \$	20,326	\$	83,879	\$	92,868

For fiscal 2017, the higher Capital Equipment gross profit as compared to fiscal 2016 was primarily due to higher volume and lower cost. The higher sales volume was primarily due to growing market demand in consumer, enterprise, automotive and industrial applications partially offset by lower demand for our Hybrid products in the SiP market. The lower cost was due to product mix and better absorption from higher manufacturing volume. The higher sales volume and lower cost were partially offset by unfavorable price variance due to price reduction.

APS

The following table reflects the components of APS gross profit change between fiscal 2017 and 2016:

	_	Fiscal 2017 vs. 2016					
(in thousands)]	Price	Cost		Volume		\$ Change
APS	\$	(4,385) \$	7	\$	12,568	\$	8,190

For fiscal 2017, the higher APS gross profit as compared to fiscal 2016 was primarily due to higher sales in tools. This was partially offset by a price reduction.

Operating Expenses

The following table reflects operating expenses as a percentage of net revenue for fiscal 2017 and 2016:

	Fiscal		
	2017	2016	Basis point change
Selling, general and administrative	16.5%	21.5%	(500)
Research and development	12.4%	14.7%	(230)
Impairment charges	4.4%	%	440
Total	33.3%	36.2%	(290)

Selling, General and Administrative ("SG&A")

For fiscal 2017, lower SG&A as compared to fiscal 2016 was primarily due to net decrease of \$5.2 million of expenses relating to the restructuring programs, \$1.4 million relating to other severance payments and a \$0.8 million recovery of insurance claims. These were partially offset by \$3.4 million increase in incentive compensation due to better current fiscal year performance and \$2.8 million increase in executive staff costs.

Research and Development ("R&D")

For fiscal 2017, higher R&D expenses as compared to fiscal 2016 was primarily due to higher staff costs. This was partially offset by lower prototype material costs for advanced packaging products.

Impairment Charges

In fiscal 2017, the Company recognized a non-cash impairment charge related to goodwill in the EA/APMR (former Assembléon) reporting unit. See Note 5 "Goodwill and Intangible Assets" of the accompanying consolidated financial statements for further information.

Income from Operations

For fiscal 2017, total income from operations was higher by \$59.1 million as compared to fiscal 2016. This was primarily due to higher revenue for Capital Equipment sales and partially offset by higher operating expenses as explained above.

Interest Income and Expense

The following table reflects interest income and interest expense for fiscal 2017 and 2016:

	Fiscal	1		
(dollar amounts in thousands)	2017	2016	\$ Change	% Change
Interest income	6,491	3,318	\$ 3,173	95.6 %
Interest expense	(1,059)	(1,107)	\$ 48	(4.3)%

For fiscal 2017, interest income was higher as compared to fiscal 2016. This was primarily due to higher returns and a larger cash, cash equivalent and short-term investment balances.

Interest expense for fiscal 2017 and 2016 was attributable to the interest on financing obligation relating to the new building, which was incurred subsequent to the completion of the new building in December 2013 (Refer to Note 10 of our Consolidated Financial Statements included in Item 8 of this report).

Provision for Income Taxes

The following table reflects the provision for income taxes and the effective tax rate for fiscal 2017 and 2016:

	Fiscal	
(in thousands)	2017	2016
Income tax (benefit) / expense	(7,394)	7,709
Effective tax rate	(6.2)%	13.7%

During fiscal 2017, the Company elected to adopt the foreign tax credit for its U.S. federal tax return filings. As a result of this election, the Company has amended its U.S. tax returns from 2006 through 2015, filed its 2016 return on the same basis, and accrued the benefit for 2017. Due to this tax position, the Company recorded foreign tax credits of approximately \$26.1 million which resulted in a decrease of our effective tax rate from fiscal 2016.

For fiscal 2017, the effective tax rate differed from the federal statutory tax rate primarily due to tax benefits from foreign tax credits, profits generated in foreign operations subject to a lower statutory tax rate than the U.S. federal rate, domestic research tax credit, and the impact of tax holidays, partially offset by an increase for deferred taxes on unremitted earnings, deemed dividends, foreign withholding taxes, tax liabilities from foreign operations, and non-deductible goodwill impairment.

For fiscal 2016, the effective 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 the change in permanent reinvestment assertion from the restructuring implementation, tax benefits from domestic research expenditures, and the impact of tax holidays, 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.

Our future effective tax rate would be affected if earnings were lower than anticipated in countries where we are subjected to lower statutory rates and higher than anticipated in countries where we are subjected to higher statutory rates, by changes in the valuation of our 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.

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. We cannot practicably estimate the financial outcomes of these examinations.

LIQUIDITY AND CAPITAL RESOURCES

The following table reflects total cash and investments as of September 29, 2018 and September 30, 2017:

		A				
(dollar amounts in thousands)	Septe	mber 29, 2018	Septe	mber 30, 2017		Change
Cash and cash equivalents	\$	320,630	\$	392,410	\$	(71,780)
Restricted cash		518		530		(12)
Short-term investments		293,000		216,000		77,000
Total cash, cash equivalents, restricted cash and short-term investments	\$	614,148	\$	608,940	\$	5,208
Percentage of total assets		51.8%		52.0%	Ď	

The following table reflects summary Consolidated Statement of Cash Flow information for fiscal 2018 and 2017:

	Fis	cal	
(in thousands)	2018		2017
Net cash provided by operating activities	\$ 123,499	\$	136,310
Net cash used in investing activities	(96,871)		(144,669)
Net cash used in financing activities	(99,135)		(22,684)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	715		76
Changes in cash, cash equivalents and restricted cash	\$ (71,792)	\$	(30,967)
Cash, cash equivalents and restricted cash, beginning of period	392,940		423,907
Cash, cash equivalents and restricted cash, end of period	\$ 321,148	\$	392,940

Fiscal 2018

Net cash provided by operating activities was primarily the result of net income of \$56.7 million, non-cash adjustments of \$55.9 million and working capital changes of \$10.9 million. The change in working capital was primarily driven by an increase in income tax payable of \$78.0 million and an decrease in prepaid expenses and other current assets of \$9.4 million. This was partially offset primarily by an increase in accounts and notes receivable of \$45.2 million and a decrease in accounts payable and accrued expenses and other current liabilities of \$30.9 million.

The increase in income tax payable was primarily due to additional tax payable on the repatriation of foreign earnings subsequent to the enactment of the Tax Cuts and Jobs Act (the "Act"). The decrease in prepaid expenses and other current asset was primarily due to tax refunds received. The increase in accounts receivable was due to slower collections. The decrease in accounts payable and accrued expenses and other current liabilities was primarily due to lower customer obligations and lower accrued incentive compensation.

Net cash used in investing activities was primarily due to purchases of short-term investments of \$684.0 million and capital expenditures of \$20.5 million, offset by maturity of short-term investments of \$607.0 million.

Net cash used in financing activities primarily relates to the repurchase of common stock of \$90.3 million and dividends paid to common stockholders of \$8.2 million.

Fiscal 2017

Net cash provided by operating activities was primarily the result of net income of \$126.1 million, non-cash adjustments of \$61.8 million and working capital changes of \$(51.6) million. The change in working capital was primarily driven by an increase in accounts and notes receivable of \$67.9 million and an increase in net inventories of \$47.4 million. This was partially offset by an increase in accounts payable and accrued expenses and other current liabilities of \$63.4 million.

The increase in accounts receivable was due to higher sales in fiscal 2017 as compared to fiscal 2016. The increase in net inventories was primarily due to higher manufacturing activity in the fourth quarter of fiscal 2017 as compared to fourth quarter of fiscal 2016. The increase in accounts payable and accrued expenses and other current liabilities was primarily due to an increase in manufacturing activity, higher accrued incentive compensation due to better performance, and higher customer obligations.

Net cash used in investing activities was primarily due to net cash outflow for the Liteq acquisition of \$27.1 million, purchases of short-term investments of \$305.0 million and capital expenditures of \$25.6 million, offset by maturity of short-term investments of \$213.0 million.

Net cash used in financing relates to the repurchase of common stock of \$18.2 million, reversal of excess tax benefits of \$4.4 million and repayment of loans of \$0.6 million. This was offset by proceeds from the exercise of stock options of \$0.5 million.

Fiscal 2019 Liquidity and Capital Resource Outlook

We expect our fiscal 2019 capital expenditures to be between \$24.0 million and \$28.0 million. The actual amounts for 2019 will vary depending on market conditions. Expenditures are anticipated to be primarily used for R&D projects, enhancements to our manufacturing operations in Asia, improvements to our information technology infrastructure and leasehold improvements for our facilities.

We believe that our existing cash and investments and anticipated cash flows from operations will be sufficient to meet our liquidity and capital requirements for at least the next twelve months. Our liquidity is affected by many factors, some based on normal operations of our business and others related to global economic conditions and industry uncertainties, which we cannot predict. We also cannot predict economic conditions and industry downturns or the timing, strength or duration of recoveries. We intend to continue to use our cash for working capital needs and for general corporate purposes.

We may seek, as we believe appropriate, additional debt or equity financing which would provide capital for corporate purposes, working capital funding, additional liquidity needs or to fund future growth opportunities, including possible acquisitions and investments. The timing and amount of potential capital requirements cannot be determined at this time and will depend on a number of factors, including our actual and projected demand for our products, semiconductor and semiconductor capital equipment industry conditions, competitive factors, and the condition of financial markets.

As of September 29, 2018 and September 30, 2017, approximately \$545.0 million and \$565.0 million of cash, cash equivalents, restricted cash and short-term investments were held by the Company's foreign subsidiaries, respectively. As a result of the Act, signed into law on December 22, 2017, the cash amounts as of September 29, 2018 are expected to be available for use in the U.S. without incurring additional U.S. income tax. Please refer to Note 13 of Item 8 for more details regarding the impact of the Act on our income taxes.

The Company's international operations and capital requirements are funded primarily by cash generated by foreign operating activities and cash held by foreign subsidiaries. Most of the Company's operations and liquidity needs are outside the U.S. The Company's U.S. operations and capital requirements are funded primarily by cash generated from U.S. operating activities. In the future, the Company may repatriate up to \$100 million of cash held by foreign subsidiaries that has already been subject to U.S. tax to facilitate the repurchase of the Company's common stock under the share repurchase program. We believe our U.S. sources of cash and liquidity are sufficient to meet our other business needs in the U.S. for the foreseeable future including funding of U.S. operations, capital expenditures, dividend program, and the share repurchase program as approved by the Board of Directors. We currently do not expect that we will repatriate additional funds we have designated as indefinitely reinvested outside the U.S., but may do so in the future. Should the Company's U.S. cash needs exceed its funds generated by U.S. operations due to changing business conditions or transactions outside the ordinary course, such as acquisitions of large capital assets, businesses or any other capital appropriation in the U.S., the Company may require additional financing in the U.S. In this event, the Company could seek U.S. borrowing alternatives, repatriate funds held by foreign subsidiaries that have already been subject to U.S. taxation without incurring additional income tax expense (i.e. earnings previously subject to U.S. income tax or U.S. deferred taxes already accrued on those respective earnings), or a combination thereof.

Share Repurchase Program

On August 15, 2017, 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 1, 2020. 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, cash equivalents and short-term investments. 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. On July 10, 2018, the Company's Board of Directors increased the share repurchase authorization under the Program by an additional \$100 million.

During the fiscal year ended September 29, 2018, the Company repurchased a total of 3.8 million shares of common stock at a cost of \$91.1 million. As of September 29, 2018, our remaining share repurchase authorization under the Program was approximately \$97.7 million.

Dividends

On June 14, 2018, the Board of Directors declared and authorized the initiation of a quarterly dividend. During the fiscal year ended September 29, 2018, the Company declared dividends of \$0.24 per share of common stock. The declaration of any future cash dividend is at the discretion of the Board of Directors and will depend on the Company's financial condition, results of operations, capital requirements, business conditions and other factors, as well as a determination that such dividends are in the best interests of the Company's stockholders.

Other Obligations and Contingent Payments

In accordance with U.S. generally accepted accounting principles, certain obligations and commitments are not required to be included in the Consolidated Balance Sheets and Statements of Operations. These obligations and commitments, while entered into in the normal course of business, may have a material impact on our liquidity. Certain of the following commitments as of

September 29, 2018 are appropriately not included in the Consolidated Balance Sheets and Statements of Operations included in this Form 10-K; however, they have been disclosed in the table below for additional information.

The Company's other non-current liabilities in the Consolidated Balance Sheets consist primarily of deferred tax liabilities, gross long-term tax payable and retirement obligations. As of September 29, 2018, the Company had deferred tax liabilities of \$25.6 million and \$11.8 million of unrecognized tax benefits in long term income taxes payable related to uncertain tax positions and accrued approximately \$1.1 million of interest. At this time, we are unable to reasonably estimate the timing of the long term payments or the amount by which the liability will increase or decrease over time; therefore, such amounts are not included in the below contractual obligation table. In addition, the Company has retirement obligations and other severances of \$7.7 million which are payable on employee departure.

The following table presents certain payments due by the Company under contractual obligations with minimum firm commitments as of September 29, 2018:

		Payments due in							
<i>(in thousands)</i>	Total	L	ess than 1 year	1	- 3 years	3	- 5 years		ore than 5 years
Inventory purchase obligations ⁽¹⁾	\$ 129,962		129,962	\$		\$		\$	
Operating lease obligations ⁽²⁾	18,563		3,863		5,773		3,642		5,285
U.S. One-time transition tax payable ⁽³⁾ (reflected on our Balance Sheets)	75,215		6,658		13,317		13,317		41,923
Asset retirement obligations (reflected on our Balance Sheets) ^{(4)}	1,510		57		402		_		1,051
Total	\$ 225,250	\$	140,540	\$	19,492	\$	16,959	\$	48,259

- (1) We order inventory components in the normal course of our business. A portion of these orders are non-cancellable and a portion may have varying penalties and charges in the event of cancellation.
- (2) Represents minimum rental commitments under various leases (excluding taxes, insurance, maintenance and repairs, which are also paid by us) primarily for various facility and equipment leases, which expire periodically through 2027 (not including lease extension options, if applicable).

The annual rent and service charge for our corporate headquarters range from \$4 million to \$5 million Singapore dollars and is not included in the table above.

In accordance with ASC No. 840, Leases ("ASC 840"), the Company was considered to be the owner of its headquarters during the construction phase due to its involvement in the asset construction. As a result of the Company's continued involvement during the lease term, the Company did not fulfill the criteria to apply sale-leaseback accounting under ASC 840. Therefore, at completion, the building remained on the Consolidated Balance Sheet, and the corresponding financing obligation was reclassified to long-term liability. As of September 29, 2018, we recorded a financing obligation of \$16.0 million. The financing obligation is not reflected in the table above.

- (3) Associated with the one-time transition tax on certain earnings and profits of our foreign subsidiaries in relation to the Act. (Refer to Note 13 of Item 8).
- (4) Asset retirement obligations are associated with commitments to return the property to its original condition upon lease termination at various sites.

Off-Balance Sheet Arrangements

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 a bank guarantee for operational purposes. As of September 29, 2018, the outstanding amount was \$4.0 million. In addition, the Company has other bank guarantees for operational purposes which are secured with corresponding deposits placed with the issuer banks. These amounts are shown as restricted cash in the Consolidated Balance Sheets.

As of September 29, 2018, we did not have any other off-balance sheet arrangements, such as contingent interests or obligations associated with variable interest entities.

Item 7A. - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Our available-for-sale securities, if applicable, may consist of short-term investments in highly rated debt instruments of the U.S. Government and its agencies, financial institutions, and corporations. We continually monitor our exposure to changes in interest rates and credit ratings of issuers with respect to any available-for-sale securities and target an average life to maturity of less than 18 months. Accordingly, we believe that the effects to us of changes in interest rates and credit ratings of issuers are limited and would not have a material impact on our financial condition or results of operations.

Foreign Currency Risk

Our international operations are exposed to changes in foreign currency exchange rates due to transactions denominated in currencies other than the location's functional currency. Our international operations are 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, Singapore and Switzerland. In addition to net monetary remeasurement, we have exposures related to the translation of subsidiary financial statements from their functional currency, the local currency, the U.S. dollar, most notably in the Netherlands, China, Taiwan, Japan and Germany. Our U.S. operations also have foreign currency exposure due to net monetary assets denominated in currencies other than the U.S. dollar.

Based on our foreign currency exposure as of September 29, 2018, a 10.0% fluctuation could impact our financial position, results of operations or cash flows by \$2.0 to \$3.0 million. Our attempts to hedge against these risks may not be successful and may result in a material adverse impact on our financial results and cash flow.

We enter into 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. We have foreign exchange forward contracts with notional amounts of \$43.1 million outstanding as of September 29, 2018. On November 2, 2018, the Company entered into foreign exchange forward contracts with notional amounts of \$10.9 million.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements of Kulicke and Soffa Industries, Inc. listed in the index appearing under Item 15(a)(1) herein are filed as part of this Report under this Item 8.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Kulicke and Soffa Industries, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Kulicke and Soffa Industries, Inc. and its subsidiaries (the "Company") as of September 29, 2018 and September 30, 2017, and the related consolidated statements of operations, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended September 29, 2018, including the related notes and the financial statement schedule listed in the index appearing under Item 15(a)(2) for each of the three years in the period ended September 29, 2018 (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of September 29, 2018, based on criteria established in Internal *Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 29, 2018 and September 30, 2017, and the results of its operations and its cash flows for each of the three years in the period ended September 29, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 29, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding

prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP Singapore November 20, 2018

We have served as the Company's auditor since 2011.

KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED BALANCE SHEETS

(in thousands)

		As	sof	of			
	Septer	mber 29, 2018	Septe	ember 30, 2017			
ASSETS							
Current assets:							
Cash and cash equivalents	\$	320,630	\$	392,410			
Restricted cash		518		530			
Short-term investments		293,000		216,000			
Accounts and notes receivable, net of allowance for doubtful accounts of \$385 and							
\$79, respectively		243,373		198,480			
Inventories, net		115,191		122,023			
Prepaid expenses and other current assets		14,561		23,939			
Total current assets		987,273		953,382			
Property, plant and equipment, net		76,067		67,762			
Goodwill		56,550		56,318			
Intangible assets, net		52,871		62,316			
Deferred income taxes		9,017		27,771			
Equity investments		1,373		1,502			
Other assets		2,589		2,056			
TOTAL ASSETS	\$	1,185,740	\$	1,171,107			
LIABILITIES AND SHAREHOLDERS' EQUITY							
Current liabilities:							
Accounts payable	\$	48,527	\$	51,354			
Accrued expenses and other current liabilities		105,978		124,847			
Income taxes payable		19,571		16,780			
Total current liabilities		174,076		192,981			
Financing obligation		15,187		16,074			
Deferred income taxes		25,591		27,152			
Income taxes payable		81,491		6,438			
Other liabilities		9,188		8,432			
TOTAL LIABILITIES	\$	305,533	\$	251,077			
Commitments and contingent liabilities (Note 16)							
SHAREHOLDERS' EQUITY:							
Preferred stock, without par value:							
Authorized 5,000 shares; issued - none	\$		\$				
Common stock, no par value:							
Authorized 200,000 shares; issued 84,659 and 83,953 respectively; outstanding 67,143 and 70,197 shares, respectively		519,244		506,515			
Treasury stock, at cost, 17,516 and 13,756 shares, respectively		(248,664)		(157,604)			
Retained earnings		613,529		569,080			
Accumulated other comprehensive (loss) / gain		(3,902)		2,039			
TOTAL SHAREHOLDERS' EQUITY	\$	880,207	\$	920,030			
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$	1,185,740	\$	1,171,107			
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KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

		2018	2017		2016
Net revenue	\$	889,121	\$ 809,041	\$	627,192
Cost of sales		479,680	426,947		346,156
Gross profit		409,441	 382,094		281,036
Selling, general and administrative		123,188	133,601		134,709
Research and development		119,621	100,203		92,374
Impairment charges		_	35,207		_
Operating expenses		242,809	 269,011		227,083
Income from operations		166,632	 113,083		53,953
Interest income		11,971	6,491		3,318
Interest expense		(1,054)	(1,059)		(1,107)
Income from operations before income taxes		177,549	 118,515		56,164
Income tax expense / (benefit)		120,744	(7,394)		7,709
Share of results of equity-method investee, net of tax		129	(190)		—
Net income	\$	56,676	\$ 126,099	\$	48,455
Net income per share:					
Basic	\$	0.82	\$ 1.78	\$	0.69
Diluted	\$	0.80	\$ 1.75	\$	0.68
Cash dividends declared per share	\$	0.24	\$ _	\$	
Weighted average shares outstanding:					
Basic		69,380	70,906		70,477
Diluted		70,419	72,063		70,841

KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands)

		Fiscal	
	 2018	2017	2016
Net income	\$ 56,676 \$	126,099	6 48,455
Other comprehensive (loss) / income:	 		
Foreign currency translation adjustment	(3,633)	1,960	624
Unrecognized actuarial gain / (loss) on pension plan, net of tax	116	990	(1,791)
	 (3,517)	2,950	(1,167)
Derivatives designated as hedging instruments:			
Unrealized (loss) / gain on derivative instruments, net of tax	(669)	669	(566)
Reclassification adjustment for loss on derivative instruments recognized, net of tax	(1,755)	1,146	104
Net (decrease) / increase from derivatives designated as hedging instruments, net of tax	 (2,424)	1,815	(462)
Total other comprehensive (loss) / income	 (5,941)	4,765	(1,629)
Comprehensive income	\$ 50,735 \$	130,864	5 46,826

KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(in thousands)

	Common Stock		Treasury	Retained	Accumulated Other Comprehensive	Shareholders'
	Shares	Amount	Stock	earnings	(loss) / income	Equity
	71,240	\$ 492,339	\$ (124,856)	394,526	\$ (1,097)	\$ 760,912
Issuance of stock for services rendered	50	551	—	_	_	551
Repurchase of common stock	(1,408)	_	(14,551)	_	_	(14,551)
Exercise of stock options	53	410	—		—	410
Issuance of shares for market-based restricted stock and time-based restricted stock	485	_	_	_	_	_
Excess tax benefits from stock based compensation		197	—		—	197
Equity-based compensation		5,179	—		—	5,179
Components of comprehensive income:						
Net income	_	—	—	48,455	—	48,455
Other comprehensive loss	_	—			(1,629)	(1,629)
Total comprehensive income / (loss)	_			48,455	(1,629)	46,826
Balances as of October 1, 2016	70,420	\$ 498,676	\$ (139,407) \$	442,981	\$ (2,726)	
Issuance of stock for services rendered	45	750	—		—	750
Repurchase of common stock	(945)	—	(18,197)		—	(18,197)
Exercise of stock options	61	509	—		—	509
Issuance of shares for market-based restricted stock and time-based restricted stock	616	_	_	_	_	_
Excess tax benefits from stock based compensation		(4,392)	—		—	(4,392)
Equity-based compensation		10,972	_		_	10,972
Components of comprehensive income:						
Net income		_	_	126,099	_	126,099
Other comprehensive income		_	_		4,765	4,765
Total comprehensive income	_	_		126,099	4,765	130,864
Balances as of September 30, 2017	70,197	\$ 506,515	\$ (157,604) \$	569,080	\$ 2,039	\$ 920,030
Issuance of stock for services rendered	33	780	_	_	_	780
Repurchase of common stock	(3,760)	_	(91,060)		_	(91,060)
Exercise of stock options	6	55			_	55
Issuance of shares for market-based restricted stock and time-based restricted stock	667	_	_	_	_	_
Reversal of excess tax benefits from stock based compensation	_	_	_	_	_	_
Equity-based compensation	_	10,480	_	_	_	10,480
Cumulative effect of accounting changes		1,414		4,006	_	5,420
Cash dividend declared			_	(16,233)	_	(16,233)
Components of comprehensive income:				(- ,)		
Net income	_	_	_	56,676	_	56,676
Other comprehensive loss					(5,941)	(5,941)
Total comprehensive income / (loss)		_		56,676	(5,941)	50,735
Balances as of September 29, 2018	67 1/2	\$ 510 244	\$ (248,664)	613,529		
Balances as 01 September 29, 2018	07,143	9 J19,244	\$ (240,004) \$	015,529	ф (3,902)	φ <u>000,20</u> /

KULICKE AND SOFFA INDUSTRIES, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

		Fiscal	
	 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	\$ 56,676	\$ 126,099	\$ 48,455
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	19,015	16,257	16,230
Impairment charges		35,207	
Equity-based compensation and employee benefits	11,685	11,722	5,730
(Excess tax benefits) / Reversal of excess tax benefits from stock based compensation	(50)	4,392	(197)
Adjustment for doubtful accounts	383	(136)	(115)
Adjustment for inventory valuation	4,897	10,925	6,676
Deferred taxes	22,519	(16,758)	(15,459)
Gain on disposal of property, plant and equipment	(676)	(999)	(55)
Unrealized foreign currency translation	(2,002)	1,362	1,318
Share of results of equity-method investee	129	(190)	
Changes in operating assets and liabilities, net of assets and liabilities assumed in businesses combinations:		~ /	
Accounts and notes receivable	(45,154)	(67,879)	(22,139)
Inventory	1,631	(47,425)	(16,340)
Prepaid expenses and other current assets	9,405	(8,468)	1,599
Accounts payable, accrued expenses and other current liabilities	(30,868)	63,425	32,692
Income taxes payable	77,968	3,946	10,492
Other, net	(2,059)	4,830	(480)
Net cash provided by operating activities	 123,499	136,310	 68,407
CASH FLOWS FROM INVESTING ACTIVITIES:			
Acquisition of business, net of cash acquired		(27,119)	
Purchases of property, plant and equipment	(20,496)	(25,590)	(6,218)
Proceeds from sales of property, plant and equipment	625	1,352	1,053
Purchase of equity investments		(1,312)	
Purchase of short term investments	(684,000)	(305,000)	(124,000)
Maturity of short term investments	607,000	213,000	
Net cash used in investing activities	 (96,871)	(144,669)	 (129,165)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payment on debts	(704)	(604)	(542)
Proceeds from exercise of common stock options	55	509	410
Repurchase of common stock	(90,310)	(18,197)	(14,551)
(Reversal of excess tax benefits) / Excess tax benefits from stock based compensation		(4,392)	197
Common stock cash dividends paid	(8,176)		
Net cash used in financing activities	 (99,135)	(22,684)	 (14,486)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	715	76	537
Changes in cash, cash equivalents and restricted cash	 (71,792)	 (30,967)	 (74,707)
Cash, cash equivalents and restricted cash at beginning of period	392,940	423,907	498,614
Cash, cash equivalents and restricted cash at end of period	\$ 321,148	\$ 392,940	\$ 423,907
CASH PAID FOR:			
Interest	\$ 1,054	\$ 1,059	\$ 1,107
Income taxes	\$ 13,179	8,283	10,020
	,	<i>,</i>	<i>,</i>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1: BASIS OF PRESENTATION

These consolidated financial statements include the accounts of Kulicke and Soffa Industries, Inc. and its subsidiaries (the "Company"), with appropriate elimination of intercompany balances and transactions. As previously reported on the Annual Report on Form 10-K/A for the fiscal year ended September 30, 2017, the Company restated certain of its financial statements and related notes for the fiscal years ended September 30, 2017, October 1, 2016 and October 3, 2015. This annual report for the year ended September 29, 2018 reflects the restated numbers for those periods.

Fiscal Year

Each of the Company's first three fiscal quarters ends 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. In fiscal years consisting of 53 weeks, the fourth quarter will consist of 14 weeks. The 2018, 2017, and 2016 fiscal years ended on September 29, 2018, September 30, 2017 and October 1, 2016, respectively.

Nature of Business

The Company designs, manufactures and sells capital equipment and 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, 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 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 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 September 29, 2018 and September 30, 2017 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.

The Company's trade receivables result primarily from the sale of semiconductor equipment, related accessories and replacement parts, and 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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 the 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 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 statement of operations as the impact of the hedged transaction. Derivatives that we designate as cash flow hedges are classified in the consolidated 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.

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*.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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 significant 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 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; toolings 1 year; 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 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 fiscal years ended September 29, 2018 and September 30, 2017, no "triggering" events occurred.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Accounting for Impairment of Goodwill

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.

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 5 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. Service revenue is generally recognized over the period that the services are provided.

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 balance sheet 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 examination solely based on its technical merit. 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, including resolution of related appeals or litigation processes, if any.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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 Relative TSR Performance Share Units is determined using a Monte-Carlo valuation model, and compensation expense associated with time-based and Special/Growth Performance Share Units is determined based on the number of shares granted and the fair value on the date of grant. See Note 11 for a summary of the terms of these performance-based awards. The fair value of the Company's stock option awards are estimated using a Black-Scholes option valuation model. 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 awards, performance share units and restricted share units outstanding during the period, when such instruments are dilutive.

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 Consolidated 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 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. We adopted this ASU in the first quarter of 2018 on a retrospective basis. As of September 29, 2018 and September 30, 2017, restricted cash was \$0.5 million. The adoption of this ASU did not have a material impact on our cash flows.

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 us in the first quarter of 2019. 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.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

the statement of cash flows. We adopted this ASU as of the beginning of the first quarter of 2018 and elected to account for forfeitures when they occur, on a modified retrospective basis. The adoption impact on the consolidated balance sheet as of September 29, 2018 was a cumulative adjustment of \$1.4 million, decreasing the retained earnings and increasing capital surplus. We also recognized deferred tax assets of \$5.4 million with a corresponding increase in retained earnings. The adoption did not have any other material impacts on our financial statements. Beginning in fiscal 2018, any current year excess tax benefits or deficiencies from stock based awards are reflected in the Statement of Operations.

In May 2017, the FASB issued ASU 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. We elected to prospectively adopt this ASU as of the beginning of the first quarter of 2018. The adoption of this ASU did not 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. Subsequently in July 2018, the FASB issued ASU 2018-11 -Leases (Topic 842): Targeted Improvements, provides additional information concerning the new leases standard in ASU 2016-02, Leases (Topic 842). The targeted improvements provide entities with additional and optional transition methods. The new standard will be effective for us beginning in our first quarter of fiscal 2020 with early adoption permitted. The adoption of the new standard will result in an increase in our consolidated balance sheets for these right of use assets and corresponding liabilities. However, the ultimate impact of adopting this new standard will depend on the Company's lease portfolio as of the adoption date. We are currently evaluating the effects of the adoption of the new standard on our financial statements.

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. We adopted this ASU as of the beginning of the first quarter of 2018. The adoption of this ASU did not have a material impact on our financial statements.

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 fiscal 2021. Early adoption is permitted beginning in our first quarter of 2020. We are currently evaluating the impact of the adoption of this ASU on our financial statements.

Derivatives and Hedging

In August 2017, the FASB issued ASU 2017-12, Targeted Improvements to Accounting for Hedging Activities (Topic 815). The new guidance expands and refines hedge accounting for both financial and non-financial risks. The new guidance also modifies disclosure requirements for hedging activities. The new guidance will be effective for us beginning in our first quarter of fiscal 2020, and early adoption is permitted in any interim period. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements as well as whether to adopt the new guidance early.

Business Combinations

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business, which 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 have elected to prospectively adopt this ASU as of the beginning of the first quarter of 2018. The adoption of this ASU did not have a material impact on our financial statements.

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. We have elected to

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

prospectively adopt this ASU as of the beginning of the first quarter of 2018. The adoption of this ASU did not 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" and 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 ("modified retrospective approach"). The new standard is effective for annual reporting periods beginning after December 15, 2017. The new standard will be effective for the Company in the first quarter of its fiscal 2019. We have performed an evaluation of this ASU and its impact on the financial statements. This included tasks such as identifying contracts, performance obligations and reviewing the applicable revenue streams. We plan to adopt the standard based on the modified retrospective approach. We have completed our assessment and implemented policies, processes, and controls to support the standard's measurement and disclosure requirements.

Based on our review of our customer agreements, our revenue from sales of equipment and spare parts will continue to be recognized at a point in time, generally upon shipment of equipment and spare parts to customers, consistent with our current revenue recognition model. Revenue related to the sale of services will generally continue to be recognized over time as the services are performed. In certain instances, where collection of consideration is not probable, recognition of revenue may occur later under the new model after we have completed all of our obligations under the contract. However, when adopting the new standard, we did not identify any balances where collection of consideration is not probable. This ASU will not have a material impact on the amount and timing of revenue recognized in the Company's consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 2: RESTRUCTURING

In fiscal 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. In fiscal 2017, the Company implemented a restructuring program to reallocate resources with respect to the EA/APMR ("Electronics Assembly/Hybrid") business unit.

The accrued cost as at September 29, 2018 of these restructuring programs is expected to be paid by the end of fiscal 2019.

The following table is a summary of activity related to the Company's restructuring and other charges for fiscal 2018, 2017, and 2016:

			Fiscal Year 2	018	Activity		
(in thousands)	Beginnii	ng of period ⁽¹⁾	Expenses (2)		Payments	En	d of period ⁽¹⁾
Severance and benefits	\$	2,892	\$ (96)	\$	(2,708) \$)	88
Other exit costs		1,736	(225)		(329)		1,182
		4,628	 (321)		(3,037)		1,270
			Fiscal Year 2	017	Activity		
(in thousands)	Beginnin	ng of period ⁽¹⁾	Expenses (2)		Payments	En	d of period ⁽¹⁾
Severance and benefits	\$	37	\$ 3,273	\$	(418) \$		2,892
Other exit costs		6,525	38		(4,827)		1,736
		6,562	 3,311		(5,245)		4,628
			Fiscal Year 20	016 <i>A</i>	Activity		
(in thousands)	Beginnir	ng of period ⁽¹⁾	Expenses (2)		Payments	En	d of period ⁽¹⁾
Severance and benefits	\$	1,538	\$ 661	\$	(2,162) \$		37
Other exit costs			7,983		(1,458)		6,525
		1,538	 8,644	_	(3,620)		6,562

(1) Included within accrued expenses and other current liabilities on the Consolidated Balance Sheets.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 3: BALANCE SHEET COMPONENTS

The following tables reflect the components of significant balance sheet accounts as of September 29, 2018 and September 30, 2017:

	As of				
(in thousands)	Septe	mber 29, 2018	Septer	mber 30, 2017	
Short term investments, available-for-sale ⁽¹⁾	\$	293,000	\$	216,000	
Inventories, net:					
Raw materials and supplies	\$	63,894	\$	44,239	
Work in process		37,829		40,827	
Finished goods		40,357		61,596	
		142,080		146,662	
Inventory reserves		(26,889)		(24,639)	
	\$	115,191	\$	122,023	
Property, plant and equipment, net:					
Land	\$	2,182	\$	2,182	
Buildings and building improvements		52,449		50,910	
Leasehold improvements		12,728		9,882	
Data processing equipment and software		35,469		34,700	
Machinery, equipment, furniture and fixtures		68,666		60,143	
Construction in progress		6,940		8,000	
		178,434		165,817	
Accumulated depreciation		(102,367)		(98,055)	
	\$	76,067	\$	67,762	
Accrued expenses and other current liabilities:					
Wages and benefits	\$	44,505	\$	47,411	
Accrued customer obligations ⁽²⁾		34,918		54,163	
Commissions and professional fees		5,549		8,555	
Dividends payable		8,057			
Deferred rent		1,847		1,930	
Severance ⁽³⁾		1,415		3,828	
Other		9,687		8,960	
	\$	105,978	\$	124,847	

(1) 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. The Company did not recognize any realized gains or losses on the sale of investments during the years ended 2018 and 2017.

(2) Represents customer advance payments, customer credit program, accrued warranty expense and accrued retrofit obligations.

(3) Includes the restructuring plan discussed in Note 2, severance payable in connection with the November 2017 departure of the Company's Chief Financial Officer of \$0.4 million, and other severance payments.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 4: BUSINESS COMBINATIONS

Acquisition of Liteq

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 to purchase all of the outstanding equity interests 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 fiscal 2018 to 2022. The acquisition expands the Company's presence in the advanced packaging market.

The acquisition of Liteq was accounted for in accordance with ASC No. 805, *Business Combinations*, using the acquisition method. On July 2, 2018 the Company finalized the valuation of the tangible and identifiable intangible assets and liabilities in connection with the acquisition of Liteq and no further adjustment was recorded.

The following table summarizes the allocation of the assets acquired and liabilities assumed based on the fair values as of the acquisition date and related useful lives of the finite-lived intangible assets acquired:

(in thousands)	Jul	y 2, 2017
Prepaid expenses and other current assets	\$	199
Property, plant and equipment		107
Intangibles		18,060
Goodwill		10,253
Accounts payable		(157)
Accrued expenses and other current liabilities		(103)
Deferred tax liabilities		(1,240)
Total purchase price, net of cash acquired	\$	27,119

Tangible net assets (liabilities) were valued at their respective carrying amounts, which the Company believes approximate their current fair values at the acquisition date.

The valuation of identifiable intangible assets acquired, representing developed technology, reflects management's estimates based on, among other factors, use of established valuation methods. The developed technology was determined using the relief from royalty method, and is amortized over the period of estimated benefit using the straight-line method and the estimated useful lives of ten years. The straight-line method of amortization represents the Company's best estimate of the distribution of the economic value of the identifiable intangible assets. Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired and includes the value of expected future cash flows of Liteq from expected synergies with our other affiliates and other unidentifiable intangible assets. None of the goodwill recorded as part of the acquisition will be deductible for income tax purposes.

In connection with the acquisition of Liteq, the Company recorded deferred tax liabilities relating to the acquired intangible assets, which are partially offset by the net amount of acquired net operating losses. The net amount of acquired net operating losses is comprised of net operating losses less the tax reserves and valuation allowance.

For the year ended September 30, 2017, the acquired business contributed a net loss of \$1.4 million.

During fiscal 2017, the Company incurred \$0.3 million of expenses related to the acquisition, which is included within selling, general and administrative expense in the consolidated statements of operations.

The following unaudited pro forma information presents the combined results of operations as if the acquisition had been completed on October 3, 2015, the beginning of the comparable prior annual reporting period. The unaudited pro forma results include: (i) amortization associated with preliminary estimates for the acquired intangible assets; (ii) recognition of the post-acquisition sharebased compensation and other compensation expense; and (iii) the associated tax impact on these unaudited pro forma adjustments.

The unaudited pro forma results do not reflect any cost saving synergies from operating efficiencies or the effect of the incremental costs incurred in integrating the two companies. Accordingly, these unaudited pro forma results are presented for informational purposes only and are not necessarily indicative of what the actual results of operations of the combined company would have been if the acquisition had occurred at the beginning of the periods presented, nor are they indicative of future results of operations:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Fiscal								
(in thousands, except for per share information)		2017		2016					
Net revenue	\$	809,041	\$	627,192					
Net income		120,143		42,513					
Basic income per common share		1.69		0.60					
Diluted income per common share	\$	1.67	\$	0.59					

Acquisition of Assembléon

On January 9, 2015, Kulicke & Soffa Holdings B.V. ("KSH"), the Company's wholly owned subsidiary, acquired all of the outstanding equity interests of Assembléon. The cash purchase price of approximately \$97.4 million (EUR 80 million) consisted of \$72.5 million for 100% of the equity of Assembléon and \$24.9 million which was used by Assembléon to settle intercompany loans with its parent company. On January 18, 2018, the Company released \$5.0 million (EUR 4.2 million) previously held in escrow, after the conclusion of a legal proceeding for which the Company asserted indemnification rights under the share purchase agreement.

NOTE 5: GOODWILL AND INTANGIBLE ASSETS

Goodwill

Intangible assets classified as goodwill are not amortized. 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.

During the third quarter of the fiscal year ended September 30, 2017, the Company concluded that a triggering event had occurred in connection with the EA/APMR reporting unit (the former Assembléon) based on the results of an updated long-term financial outlook for the EA/APMR 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 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 intangible assets. Accordingly, the Company performed the first step of the goodwill impairment test for the EA/APMR reporting unit.

The Company used a discounted cash flow model to determine the fair value of the EA/APMR 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 EA/APMR 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 EA/APMR reporting unit exceeded its fair value by \$35.2 million, requiring an impairment charge of this amount in the third quarter of fiscal 2017. The goodwill impairment charge, which is a non-cash charge, has been reflected in the Company's Consolidated Statements of Operations for the fiscal year ended September 30, 2017.

The Company performed its annual impairment test in the fourth quarter of fiscal 2018 and concluded that no impairment charge was required.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table summarizes the Company's recorded goodwill by reportable segments as of September 29, 2018 and September 30, 2017:

(in thousands)	Capita	APS		
Balance at October 1, 2016	\$	33,453	\$	47,819
Acquired in business combination		10,253		
Goodwill impairment		(13,731)		(21,476)
Balance at September 30, 2017	\$	29,975	\$	26,343
Other		184		48
Balance at September 29, 2018	\$	30,159	\$	26,391

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 September 29, 2018 and September 30, 2017:

		As	Average estimated			
(dollar amounts in thousands)	Sept	tember 29, 2018	Septen	nber 30, 2017	useful lives (in years)	
Developed technology	\$	90,500	\$	92,140	7.0 to 15.0	
Accumulated amortization		(45,229)		(41,162)		
Net developed	d technology \$	45,271	\$	50,978		
Customer relationships	\$	36,131	\$	36,968	5.0 to 6.0	
Accumulated amortization		(29,820)		(27,398)		
Net customer	relationships \$	6,311	\$	9,570		
Trade and brand names	\$	7,377	\$	7,515	7.0 to 8.0	
Accumulated amortization		(6,088)		(5,747)		
Net trade and	brand names \$	1,289	\$	1,768		
Other intangible assets	\$	2,500	\$	2,500	1.9	
Accumulated amortization		(2,500)		(2,500)		
Net wedge bonder other inta	ngible assets \$		\$			
Net inta	ngible assets \$	52,871	\$	62,316		

The following table reflects estimated annual amortization expense related to intangible assets as of September 29, 2018:

	As of September 29, 2018				
(in thousands)					
Fiscal 2019	\$ 7,633				
Fiscal 2020	7,633				
Fiscal 2021	5,529				
Fiscal 2022	4,530				
Fiscal 2023 and thereafter	27,546				
Total amortization expense	\$ 52,871				

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 6: CASH, CASH EQUIVALENTS, 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.

Cash, cash equivalents, restricted cash and short-term investments consisted of the following as of September 29, 2018:

(dollar amounts in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	F	Stimated Fair Value
Current assets:					
Cash	\$ 42,446	\$ 	\$ 	\$	42,446
Cash equivalents:					
Money market funds ⁽¹⁾	209,172		(5)		209,167
Time deposits ⁽²⁾	69,017		_		69,017
Total cash and cash equivalents	\$ 320,635	\$ 	\$ (5)	\$	320,630
Restricted Cash ⁽²⁾	\$ 518	\$ 	\$ 	\$	518
Total restricted cash	\$ 518	\$ 	\$ 	\$	518
Short-term investments ⁽²⁾ :					
Time deposits	\$ 197,000	\$ 	\$ _	\$	197,000
Deposits ⁽³⁾	96,000		_		96,000
Total short-term investments	\$ 293,000	\$ 	\$ 	\$	293,000
Total cash, cash equivalents, restricted cash and short-term investments	\$ 614,153	\$ _	\$ (5)	\$	614,148

(1) The fair value was determined using unadjusted prices in active, accessible markets for identical assets, and as such they were classified as Level 1 assets in the fair value hierarchy.

(2) Fair value approximates cost basis.

(3) Represents deposits that require a notice period of three months for withdrawal.

Cash, cash equivalents, restricted cash and short-term investments consisted of the following as of September 30, 2017:

(dollar amounts in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	F	Estimated Fair Value
Current assets:					
Cash	\$ 65,759	\$ _	\$ _	\$	65,759
Cash equivalents ⁽¹⁾ :					
Money market funds	232,069	—	—		232,069
Time deposits	89,087	—	—		89,087
Commercial paper	5,495				5,495
Total cash and cash equivalents	\$ 392,410	\$ 	\$ 	\$	392,410
Restricted Cash ⁽¹⁾	\$ 530	\$ 	\$ 	\$	530
Total restricted cash	\$ 530	\$ 	\$ 	\$	530
Short-term investments ⁽¹⁾ :					
Time deposits	\$ 120,000	\$ 	\$ 	\$	120,000
Deposits ⁽²⁾	96,000				96,000
Total short-term investments	\$ 216,000	\$ 	\$ 	\$	216,000
Total cash, cash equivalents, restricted cash and short-term investments	\$ 608,940	\$ 	\$ 	\$	608,940

(1) Fair value approximates cost basis.

(2) Represents deposits that require a notice period of three months for withdrawal.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 7: EQUITY INVESTMENTS

Equity investments consisted of the following as of September 29, 2018 and September 30, 2017:

	As of						
(in thousands)	September 29, 20	18	September 30, 2017				
Equity method investment	\$ 1,3	73 \$	1,502				

The Company has an investment in one of our strategic suppliers which provides the Company with the ability to exercise significant 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 Statements of Operations.

NOTE 8: 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 year ended September 29, 2018.

Fair Value Measurements on a Nonrecurring Basis

Our non-financial assets such as intangible assets and property, plant 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 accounts receivables, prepaid expenses and other current assets, accounts payable and accrued expenses approximate fair value.

NOTE 9: 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 foreign currencies, primarily in Singapore.

The foreign currency exposure of our operating expenses are 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 Statements of Operations as the impact of the hedged transaction.

The fair value of derivative instruments on our Consolidated Balance Sheet as of September 29, 2018 and September 30, 2017 is as follows:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	As of									
(in thousands)		Septembe	er 29, 1	2018		Septembe	September 30, 2017			
		Notional Amount		Fair Value Liability Derivatives ⁽¹⁾		Notional Amount		Fair Value Asset Derivatives ⁽²⁾		
Derivatives designated as hedging instruments:										
Foreign exchange forward contracts ⁽²⁾	\$	43,095	\$	1,071	\$	36,404	\$	1,353		
Total derivatives	\$	43,095	\$	1,071	\$	36,404	\$	1,353		

(1) 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 Balance Sheet.

(2) 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 Balance Sheet

(3) Hedged amounts expected to be recognized into earnings within the next twelve months.

The effect of derivative instruments designated as cash flow hedges in our Consolidated Statements of Operations for the year ended September 29, 2018 and September 30, 2017 was as follows:

(in thousands)	Fiscal		
		2018	2017
Foreign exchange forward contract in cash flow hedging relationships:			
Net (loss) / gain recognized in OCI, net of $tax^{(1)}$	\$	(669) \$	669
Net gain / (loss) reclassified from accumulated OCI into earnings, net of $tax^{(2)}$	\$	1,755 \$	(1,146)
Net gain recognized into earnings ⁽³⁾	\$	— \$	

(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 10: 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 September 29, 2018, the financing obligation related to the Building is \$16.0 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 September 29, 2018 and September 30, 2017, the outstanding amount is \$4.0 million and

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

\$3.2 million respectively. In addition, the Company has other bank guarantees for operational purposes which are secured with corresponding deposits placed with the issuer banks. These amounts are shown as restricted cash in the Consolidated Balance Sheets.

NOTE 11: SHAREHOLDERS' EQUITY AND EMPLOYEE BENEFIT PLANS

Common Stock and 401(k) Retirement Income Plans

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 Plan during fiscal 2018 and 2017:

	 Fiscal				
(in thousands)	 2018	2017			
Cash	\$ 1,610	\$ 1,645			

Share Repurchase Program

On August 15, 2017, 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 1, 2020. 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, cash equivalents and short-term investments. 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. On July 10, 2018, the Company's Board of Directors increased the share repurchase authorization under the Program by an additional \$100 million. During the year ended September 29, 2018, the Company repurchased a total of 3.8 million shares of common stock at a cost of \$91.1 million. The share repurchases were recorded in the periods they were delivered and accounted for as treasury stock in the Company's Consolidated 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 September 29, 2018, our remaining share repurchase authorization under the Program was approximately \$97.7 million.

Dividends

On June 14, 2018, the Board of Directors declared and authorized the initiation of a quarterly dividend. During the year ended September 29, 2018, the Company declared dividends of \$0.24 per share of common stock. The declaration of any future cash dividend is at the discretion of the Board of Directors and will depend on the Company's financial condition, results of operations, capital requirements, business conditions and other factors, as well as a determination that such dividends are in the best interests of the Company's stockholders.

Accumulated Other Comprehensive Income

The following table reflects accumulated other comprehensive income / (loss) reflected on the Consolidated Balance Sheets as of September 29, 2018 and September 30, 2017:

	As of							
(in thousands)	Septem	ber 29, 2018	Septem	ber 30, 2017				
(Loss) / Gain from foreign currency translation adjustments	\$	(1,211)	\$	2,422				
Unrecognized actuarial loss on pension plan, net of tax		(1,620)		(1,736)				
Unrealized (loss) / gain on hedging		(1,071)		1,353				
Accumulated other comprehensive (loss) / income	\$	(3,902)	\$	2,039				

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"). As of September 29, 2018, 4.7 million shares of

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

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.

- Relative TSR Performance Share Units ("Relative TSR PSUs") entitles the employee to receive common shares of the Company on the award vesting date if market performance objectives which 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. The provisions of the Relative TSR PSUs 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 Share Units ("Time-based RSUs") 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.
- Special/Growth Performance Share Units ("Special/Growth PSUs") 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 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 revenue growth targets are not met, the Special/Growth PSUs do not vest. Certain Special/Growth 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 Special/Growth PSUs do not vest.
- In general, Performance-based Restricted Stock 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 Statements of Operations for fiscal 2018, 2017, and 2016 was based upon awards ultimately expected to vest. Following the early adoption in the first quarter of fiscal 2018 of ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, forfeitures have been accounted for when they occur.

The following table reflects total equity-based compensation expense, which includes Relative TSR PSUs, Time-based RSUs, Special/Growth PSUs, Performance-based Restricted Stock and common stock, included in the Consolidated Statements of Operations for fiscal 2018, 2017, and 2016:

	Fiscal								
(in thousands)		2018		2017		2016			
Cost of sales	\$	515	\$	463	\$	421			
Selling, general and administrative (1)		8,548		9,015		3,244			
Research and development		2,622		2,244		2,065			
Total equity-based compensation expense	\$	11,685	\$	11,722	\$	5,730			

(1) The selling, general and administrative expense for fiscal 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table reflects equity-based compensation expense, by type of award, for fiscal 2018, 2017, and 2016:

	Fiscal									
(in thousands)		2018		2017		2016				
Relative TSR PSUs	\$	3,583	\$	3,480	\$	(33)				
Time-based RSUs		7,027		7,492		5,255				
Performance-based restricted stock				_		(43)				
Special/Growth PSUs		295		_						
Common stock		780		750		551				
Total equity-based compensation expense (1)	\$	11,685	\$	11,722	\$	5,730				

(1) The equity-based compensation expense for fiscal 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.

Equity-Based Compensation: Relative TSR PSUs

The following table reflects Relative TSR PSUs activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)	Unrecognized compensation expense (in thousands)		Average remaining service period (in years)		Weighted average grant date fair value per share		
Relative TSR PSUs outstanding as of October 3, 2015	578	\$	4,465	1.4				
Granted	172				\$	12.26		
Forfeited or expired	(256)							
Vested	(10)							
Relative TSR PSUs outstanding as of October 1, 2016	484	\$	2,924	1.0				
Granted	388				\$	13.47		
Forfeited or expired	(3)							
Vested	(196)							
Relative TSR PSUs outstanding as of September 30, 2017	673	\$	6,204	1.4				
Granted	180				\$	29.60		
Forfeited or expired	(146)							
Vested	(168)							
Relative TSR PSUs outstanding as of September 29, 2018	539	\$	4,629	1.1	=			

The following table reflects the assumptions used to calculate compensation expense related to the Company's Relative TSR PSUs issued during fiscal 2018, 2017, and 2016:

	Fiscal						
	 2018	2017	2016				
Grant Price	\$ 19.65 \$	12.51 \$	9.58				
Expected dividend yield ⁽¹⁾	0.12%	N/A	N/A				
Expected stock price volatility	31.71%	30.39%	30.85%				
Risk-free interest rate	1.68%	0.96%	0.89%				

(1) The expected dividend yield for fiscal 2018 includes the effect of 10,511 grants which were issued in the quarter ended September 29, 2018 with an assumed dividend yield of 1.91%

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Equity-Based Compensation: Time-based RSUs

The following table reflects Time-based RSUs activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)	Unrecognized compensation expense (in thousands)	Average remaining service period (in years)		Weighted average grant date fair value per share		
Time-based RSUs outstanding as of October 3, 2015	849	\$ 7,054	1.6				
Granted	597			\$	9.66		
Forfeited or expired	(85)						
Vested	(346)						
Time-based RSUs outstanding as of October 1, 2016	1,015	\$ 6,440	1.5				
Granted	715			\$	13.32		
Forfeited or expired	(50)						
Vested	(600)						
Time-based RSUs outstanding as of September 30, 2017	1,080	\$ 7,770	1.5				
Granted	459			\$	22.32		
Forfeited or expired	(87)						
Vested	(542)						
Time-based RSUs outstanding as of September 29, 2018	910	\$ 9,038	1.4	=			

Equity-Based Compensation: Performance-based restricted stock

The following table reflects Performance-based restricted stock activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)	Unrecognized compensation expense (in thousands)	Average remaining service period (in years)
Performance-based restricted stock outstanding as of October 3, 2015	57 \$	§ 285	2.2
Granted			
Forfeited or expired	(29)		
Vested	(28)		
Performance-based restricted stock outstanding as of October 1, 2016		_	0

No Performance-based restricted stock were granted during fiscal 2018, 2017, and 2016.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Equity-Based Compensation: Special/Growth PSUs

The following table reflects Special/Growth PSUs activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)	Unrecognized compensation expense (in thousands)	Average remaining service period (in years)	gr	ghted average ant date fair lue per share
Special/Growth PSUs outstanding as of September 30, 2017	_				
Granted	60			\$	22.57
Forfeited or expired	(14)				
Vested	—				
Special/Growth PSUs outstanding as of September 29, 2018	46	\$ 702	2.1	_	

The following table reflects employee stock option activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)	ex	Weighted average xercise price	Average remaining contractual life (in years)	int	Aggregate trinsic value thousands)
Options outstanding as of October 3, 2015	147	\$	8.18			
Exercised	(53)	\$	5.40		\$	330
Forfeited or expired	(4)	\$	9.00			
Options outstanding as of October 1, 2016	90	\$	8.41			
Exercised	(61)	\$	8.31		\$	531
Forfeited or expired	(13)	\$	8.50			
Options outstanding as of September 30, 2017	16	\$	8.73			
Exercised	(6)	\$	8.74		\$	73
Forfeited or expired	(8)	\$	8.74			
Options outstanding as of September 29, 2018	2	\$	8.64	1.6	\$	25
Options vested and expected to vest as of September 29, 2018	2	\$	8.64	1.6	\$	25
Options exercisable as of September 29, 2018	2	\$	8.64	1.6		
In the money exercisable options as of September 29, 2018	2				\$	25

Intrinsic value of stock options exercised is determined by calculating the difference between the market value of the Company's stock price at the time an option is exercised and the exercise price, multiplied by the number of shares. The intrinsic value of stock options outstanding and stock options exercisable is determined by calculating the difference between the Company's closing stock price on the last trading day of fiscal 2018 and the exercise price of in-the-money stock options, multiplied by the number of underlying shares. During fiscal 2018, the Company received \$54,800 in cash from the exercise of employee and non-employee director stock options.

As of September 29, 2018, there were no unvested employee stock options.

The following table reflects outstanding and exercisable employee stock options as of September 29, 2018:

		Options Outstanding		Options Ex	ere	cisable	
Range of exercise prices	Options outstanding (in thousands)	Weighted average remaining contractual life (in years)	ave	Weighted erage exercise price	Options exercisable (in thousands)	ć	Weighted average exercise price
8.64	2	1.6	\$	8.64	2	\$	8.64

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Equity-Based Compensation: non-employee directors

The 2017 Equity Plan provides for the grant of common shares to each non-employee director upon initial election to the board and on the first business day of each calendar quarter while serving on the board. The grant to a non-employee director upon initial election to the board is that number of common shares closest in value to, without exceeding, \$120,000. The quarterly grant to a non-employee director upon the first business day of each calendar year quarter is that number of common shares closest in value to, without exceeding, \$32,500.

The following table reflects shares of common stock issued to non-employee directors and the corresponding fair value for fiscal 2018, 2017, and 2016:

		Fiscal	
(in thousands)	 2018	2017	2016
Number of common shares issued	 33	45	50
Fair value based upon market price at time of issue	\$ 780	\$ 750	\$ 551

The following table reflects non-employee director stock option activity for fiscal 2018, 2017, and 2016:

	Number of shares (in thousands)		Weighted average exercise price	Average remaining contractual life (in years)	Aggregate intrinsic value (in thousands)		
Options outstanding as of October 3, 2015	20	\$	11.20		\$	225	
Exercised		\$					
Forfeited or expired	(20)	\$	11.20				
Options outstanding as of October 1, 2016		\$			\$	—	

No non-employee director stock options were granted during fiscal 2018, 2017, and 2016.

Pension Plan

The following table reflects the Company's defined benefits pension obligations, mainly in Switzerland and Taiwan, as of September 29, 2018 and September 30, 2017:

	As of							
(in thousands)	Septemb	September 29, 2018		per 30, 2017				
Switzerland pension obligation	\$	1,980	\$	1,951				
Taiwan pension obligation		1,256		967				

Other Plans

Some of the Company's other foreign subsidiaries have retirement plans that are integrated with and supplement the benefits provided by laws of the various countries. These other plans are not required to report nor do they determine the actuarial present value of accumulated benefits or net assets available for plan benefits as they are defined contribution plans.

NOTE 12: 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 fiscal 2018, 2017, and 2016:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

						Fis	scal					
(in thousands, except per share)	2018		2017					2016				
		Basic		Diluted		Basic		Diluted		Basic		Diluted
NUMERATOR:			-									
Net income	\$	56,676	\$	56,676	\$	126,099	\$	126,099	\$	48,455	\$	48,455
DENOMINATOR:												
Weighted average shares outstanding - Basic		69,380		69,380		70,906		70,906		70,477		70,477
Stock options			-	1			-	19			•	32
Time-based restricted stock				402				592				274
Market-based restricted stock				636				546				58
Weighted average shares outstanding - Diluted				70,419				72,063	•			70,841
EPS:			_						•			
Net income per share - Basic	\$	0.82	\$	0.82	\$	1.78	\$	1.78	\$	0.69	\$	0.69
Effect of dilutive shares			\$	(0.02)			\$	(0.03)			\$	(0.01)
Net income per share - Diluted			\$	0.80			\$	1.75			\$	0.68

NOTE 13: INCOME TAXES

The following table reflects income or losses from continuing operations by location, the provision for income taxes and the effective tax rate for fiscal 2018, 2017, and 2016:

	Fiscal									
(dollar amounts in thousands)	2018			2017	2016					
United States operations Foreign operations	\$	25,211 152,338	\$	(4,114) 122,629	\$	(12,600) 68,764				
Income from operations before tax Income tax expenses / (benefit)	\$	177,549 120,744	\$	118,515 (7,394)	\$	56,164 7,709				
Effective tax rate		68.0%	ó	(6.2)%	6	13.7%				

The following table reflects the provision for income taxes from continuing operations for fiscal 2018, 2017, and 2016:

	Fiscal								
(in thousands)	2018			2017	2016				
Current:									
Federal	\$	83,159	\$	(3,975) \$	871				
State		58		64	53				
Foreign		16,980		13,290	21,841				
Deferred:									
Federal		23,346		(15,374)	(13,423)				
State		(2)		40	12				
Foreign		(2,797)		(1,439)	(1,645)				
Provision for income taxes	\$	120,744	\$	(7,394) \$	7,709				

The following table reflects the difference between the provision for income taxes and the amount computed by applying the statutory federal income tax rate for fiscal 2018, 2017, and 2016:

		Fiscal	
(in thousands)	 2018	2017	2016
Computed income tax expense based on U.S. statutory rate	\$ 43,568 \$	41,358 \$	19,658
Effect of earnings of foreign subsidiaries subject to different tax rates	(12,947)	(22,832)	(7,584)
Benefits from foreign approved enterprise zones	(20,429)	(23,294)	(8,701)
Benefits from research and development tax credits	(2,785)	(1,859)	(2,839)
Benefits from foreign tax credits	(3,939)	(26,119)	—
Provisional estimate for the one-time U.S. transition tax, net of uncertain tax positions and foreign tax credits	101,854	_	
Remeasurement of net U.S. deferred tax assets to reflect a reduction in the U.S. federal corporate tax rate	2,760	_	
Change in permanent reinvestment assertion			(9,696)
Tax impact on restructuring			4,238
Tax audit settlement			4,889
Effect of permanent items	(758)	778	(2,274)
Non-deductible goodwill impairment		8,805	
Deferred taxes not benefited	7,366	6,458	3,585
Foreign operations (withholding taxes, deferred taxes on unremitted earnings, US taxation of foreign earnings)	5,746	6,039	4,981
Reserve for uncertain tax positions	530	2,936	208
State income tax expense (net of federal benefit)	56	60	996
Other, net	(278)	276	248
Provision for income taxes	\$ 120,744 \$	(7,394) \$	7,709

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

2017 Tax Cuts and Jobs Act

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was signed into law. The Act, among other changes, reduces the U.S. federal corporate tax rate from 35% to 21%, implements a modified territorial tax system that includes a one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, and creates new taxes on certain foreign-sourced earnings.

The Company has reflected the income tax effects of the Act for which the accounting under Accounting Standards Codification Topic 740, Income Taxes is complete. For those items for which the accounting is not yet complete, but for which a reasonable estimate could be made, we have recorded the provisional income tax expense in the Statement of Operations. As of September 29, 2018, there are no material items for which a reasonable estimate of the impact could not be made.

Due to the enactment of this legislation, we recognized a net income tax provision of \$104.6 million, comprised primarily of approximately \$2.8 million from the remeasurement of U.S. deferred tax assets and liabilities using the relevant tax rate at which we expect them to reverse (with a blended U.S. federal corporate tax rate of 24.5% applicable for reversals in fiscal 2018 and 21% applicable for reversals in fiscal 2019 and beyond) and approximately \$101.9 million from the one-time transition tax on deemed repatriation of previously untaxed accumulated earnings and profits of certain foreign subsidiaries, net of uncertain tax positions and foreign tax credits. In addition, beginning in the first quarter of fiscal 2019, we will record the income tax effects of GILTI, as well as all other tax law changes enacted by the Act.

Provisional estimate for the one-time U.S. transition tax, net of uncertain tax positions and foreign tax credits ("one-time transition tax"):

The one-time transition tax is estimated based on our accumulated post-1986 deferred foreign income not previously subject to U.S. federal and state income tax. Because the accounting and our analysis are not yet complete, the provisional income tax expense of \$101.9 million represents a reasonable estimate of the potential impact of the one-time transition tax. We have elected to pay the one-time transition tax in eight annual, interest-free, installments as allowed under the Act, beginning in January 2019.

This provisional estimate relies on assumptions made based upon our current interpretation of the Act, proposed regulations, and information available through October 30, 2018. The final impact of the Act may differ significantly from this estimate, due to, among other things, changes in interpretations and assumptions made by the Company as a result of the enactment of final

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

regulations differing from proposed regulations, as well as, additional information and guidance being made available by the IRS, U.S. Department of the Treasury, FASB or other relevant governing body. The accounting for the tax effects for the Act will be completed during our financial statement period ending December 29, 2018 in accordance with Staff Accounting Bulletin No. 118 ("SAB 118").

During fiscal 2017, the Company elected to adopt the foreign tax credit for its U.S. federal tax return filings. As a result of this election, the Company has amended its U.S. tax returns from 2006 through 2015, filed its 2016 return on the same basis, and accrued the benefit for 2017.

While the Company may repatriate up to \$100 million of cash held by foreign subsidiaries that has already been subject to U.S. tax to facilitate the repurchase of the Company's common stock under the share repurchase program, we continue to consider the remainder of the earnings of certain foreign subsidiaries to be permanently reinvested outside the United States. As of September 30, 2017, we had not recorded a deferred tax liability for U.S. federal income taxes of approximately \$627.0 million of undistributed foreign earnings. During fiscal 2018, as a result of the one-time transition tax, we have included approximately \$496.8 million of undistributed foreign earnings as net "deemed" dividends in the United States as required by the Act. Determination of the amount of unrecognized deferred tax liability related to the remaining untaxed foreign earnings is not practicable, with the exception of certain foreign subsidiaries where we continue to retain a deferred tax liability for foreign withholding taxes of approximately \$21.0 million, as those earnings may be distributed to its foreign parent company.

The following table reflects the net deferred tax balance, composed of the tax effects of cumulative temporary differences for fiscal 2018 and 2017:

	Fiscal								
(in thousands)		2018		2017					
Inventory reserves	\$	424	\$	589					
Stock options		301		422					
Other accruals and reserves		5,927		7,857					
Domestic tax credit carryforwards		4,532		17,635					
Net operating loss carryforwards		39,856		35,937					
	\$	51,040	\$	62,440					
Valuation allowance	\$	(37,249)	\$	(29,614)					
Total long-term deferred tax asset	\$	13,791	\$	32,826					
Foreign withholding tax on undistributed earnings	\$	21,988	\$	20,945					
Fixed and intangible assets		8,377		11,262					
Total long-term deferred tax liability	\$	30,365	\$	32,207					
Total net deferred tax (liability) / asset	\$	(16,574)	\$	619					
Reported as									
Deferred tax asset	\$	9,017	\$	27,771					
Deferred tax liability		25,591		27,152					
Total net deferred tax (liability) / asset	\$	(16,574)	\$	619					

As of September 29, 2018, the Company has foreign net operating loss carryforwards of \$102.9 million, domestic state net operating loss carryforwards of \$163.8 million, federal tax credit carryforwards of \$1.2 million, and state tax credit carryforwards of \$5.9 million that can reduce future taxable income. These carryforwards can be utilized in the future, prior to expiration of certain carryforwards in fiscal years 2017 through 2035 with the exception of certain credits and foreign net operating losses that have no expiration date. Pennsylvania tax law limits the time during which carryforwards may be applied against future taxes and also limits the utilization of domestic state net operating loss carryforwards to \$5.0 million annually, but recent developments may change this amount in future years. The Company has recorded a valuation allowance against domestic state tax attributes and certain foreign tax attributes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company continues to evaluate the realizability of all of its net deferred tax assets at each reporting date and records a benefit for deferred tax assets to the extent it has projected future taxable income or deferred tax liabilities that provide a source of future income to benefit the deferred tax asset. As a result of this analysis, the Company continues to maintain a valuation allowance against a majority of its state deferred tax assets as the realization of these assets is not more likely than not given uncertainty of future apportioned earnings in these jurisdictions.

The beginning and ending balances of the Company's unrecognized tax benefits are reconciled below for fiscal 2018, 2017, and 2016:

	Fiscal								
(in thousands)	2017			2016		2015			
Unrecognized tax benefit, beginning of year	\$	12,062	\$	7,453	\$	7,101			
Additions for tax positions, current year		1,482		3,657		519			
Additions for tax positions, prior year				1,834		827			
Reductions for tax positions, prior year		(506)		(882)		(994)			
Unrecognized tax benefit, end of year	\$	13,038	\$	12,062	\$	7,453			

Approximately \$12.0 million of the \$13.0 million of unrecognized tax benefit as of September 29, 2018, if recognized, would impact the Company's effective tax rate.

The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense.

The Company's future effective tax rate would be affected if earnings were lower than anticipated in countries where it is subjected to lower statutory rates and higher than anticipated in countries where it is subjected to 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. We cannot practicably estimate the financial outcomes of these examinations.

The Company files U.S. federal income tax return, as well as income tax returns in various state and foreign jurisdictions. The Company recently completed an income tax examination by the U.S. Internal Revenue Service which resulted in an insignificant impact to the financial statements. For most state tax returns, tax years following fiscal 2001 remain subject to examination as a result of the generation of net operating loss carry-forwards. In the foreign jurisdictions where the Company files income tax returns, the statutes of limitations with respect to these jurisdictions vary from jurisdiction to jurisdiction and range from 4 to 6 years. The Company is currently under income tax examination by tax authorities in certain foreign jurisdictions. The Company believes that adequate provisions have been made for any adjustments that may result from these tax examinations.

As a result of committing to certain capital investments and employment levels, income from operations in Singapore and Malaysia is subject to reduced tax rates. In connection with Singapore operations, the Company has been granted a decreased effective tax rate of five percent in that jurisdiction until February 1, 2020 subject to the fulfillment of certain continuing conditions. In fiscal 2018, 2017, and 2016, the preferential rate reduced income tax expense by approximately \$20.4 million or \$0.29 per share, \$23.3 million or \$0.32 per share and \$8.7 million or \$0.12 per share, respectively.

NOTE 14: OTHER FINANCIAL DATA

The following table reflects other financial data for fiscal 2018, 2017, and 2016:

	Fiscal					
(in thousands)		2018		2017		2016
Incentive compensation expense	\$	25,607	\$	29,612	\$	14,661
Rent expense	\$	4,914	\$	5,071	\$	5,901
Warranty and retrofit expense	\$	13,110	\$	13,740	\$	11,557

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 15: SEGMENT INFORMATION

Reportable segments are defined as components of an enterprise that engage in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and to assess performance. The Company's Chief Executive Officer is the Company's chief operating decision maker. The chief operating decision-maker does not review discrete asset information.

The following table reflects operating information by segment for fiscal 2018, 2017, and 2016:

	Fiscal								
(in thousands)	2018			2017		2016			
Net revenue:									
Capital Equipment	\$	719,390	\$	651,934	\$	488,925			
APS		169,731		157,107		138,267			
Net revenue		889,121		809,041		627,192			
Income from operations:									
Capital Equipment ⁽¹⁾		132,563		107,115		33,484			
$APS^{(2)}$		34,069		5,968		20,469			
Income from operations	\$	166,632	\$	113,083	\$	53,953			

(1) Includes the restructuring expenses as discussed in Note 2, of \$2.4 million and \$6.2 million for the years ended 2017 and 2016 respectively.

(2) Includes the restructuring expenses as discussed in Note 2, of \$0.9 million and \$2.4 million for the years ended 2017 and 2016 respectively

The following tables reflect capital expenditures, depreciation and amortization expense by segment for fiscal 2018, 2017 and 2016.

]	Fiscal			
(in thousands)	 2018		2017	2016		
Capital expenditures: Capital Equipment	\$ 7,029	\$	14,415	\$	3,111	
APS	13,412		11,273		3,190	
Capital expenditures	\$ 20,441	\$	25,688	\$	6,301	
]	Fiscal			
(in thousands)	 2018		2017		2016	
Depreciation expense:						
Capital Equipment	\$ 7,435	\$	6,306	\$	6,012	
APS	3,754		3,397		3,557	
Depreciation expense	\$ 11,189	\$	9,703	\$	9,569	
]	Fiscal			
(in thousands)	2018		2017		2016	
Amortization expense:						
Capital Equipment	\$ 4,203	\$	2,841	\$	2,760	
APS	3,623		3,713		3,901	
Amortization expense	\$ 7,826	\$	6,554	\$	6,661	

Geographical information

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following tables reflect destination sales to unaffiliated customers by country and long-lived assets by country for fiscal 2018, 2017, and 2016:

	Fiscal									
(in thousands)		2018		2017	·	2016				
China	\$	408,567	\$	323,803	\$	211,448				
Taiwan		126,676		100,738		129,128				
United States		68,774		57,728		47,806				
Malaysia		65,354		72,329		42,368				
Korea		38,551		73,410		70,593				
Philippines		26,372		25,165		8,272				
Vietnam		20,864		29,330		3,785				
Singapore		19,648		7,119		8,770				
Germany		19,018		18,754		13,043				
Thailand		17,051		15,705		11,782				
All other		78,246		84,960		80,197				
Total destination sales to unaffiliated customers	\$	889,121	\$	809,041	\$	627,192				
				Fiscal						
(in thousands)		2018		2017		2016				
Long-lived assets:										
Singapore	\$	30,240	\$	31,553	\$	33,286				
United States		23,696		43,440		18,570				
China		18,333		11,148		7,459				
Israel		8,460		4,549		4,810				
All other		6,944		6,899		5,295				
Total long-lived assets	\$	87,673	\$	97,589	\$	69,420				

NOTE 16: 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, including product part replacement, freight charges and related labor costs expected to be incurred to correct product failures during the warranty period.

The following table reflects the reserve for product warranty activity for fiscal 2018, 2017, and 2016:

		Fiscal	
(in thousands)	 2018	2017	2016
Reserve for warranty, beginning of period	\$ 13,796 \$	12,544	\$ 10,632
Provision for warranty	12,603	11,743	11,553
Utilization of reserve	(11,925)	(10,491)	(9,641)
Reserve for warranty, end of period	\$ 14,474 \$	13,796	\$ 12,544

Other Commitments and Contingencies

The following table reflects obligations not reflected on the Consolidated Balance Sheet as of September 29, 2018:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

		Payments due by fiscal year									
(in thousands)	 Total		2019		2020		2021		2022	t	thereafter
Inventory purchase obligation (1)	\$ 129,962	\$	129,962	\$	_	\$		\$		\$	
Operating lease obligations (2)	18,563		3,863		3,511		2,262		1,823		7,104
Total	\$ 148,525	\$	133,825	\$	3,511	\$	2,262	\$	1,823	\$	7,104

(1) The Company orders inventory components in the normal course of its business. A portion of these orders are noncancelable and a portion may have varying penalties and charges in the event of cancellation.

(2) The Company has minimum rental commitments under various leases (excluding taxes, insurance, maintenance and repairs, which are also paid by the Company) primarily for various facility and equipment leases, which expire periodically through 2018 (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 September 29, 2018, we recorded a financing obligation related to the Building of \$16.0 million (see Note 10 above). The financing obligation is not reflected in the table above.

Concentrations

The following tables reflect significant customer concentrations as a percentage of net revenue for fiscal 2018, 2017, and 2016:

	Fiscal						
	2018	2017	2016				
Haoseng Industrial Co., Ltd	12.8%	10.1%	11.5%				

The following table reflects significant customer concentrations as a percentage of total accounts receivable as of September 29, 2018 and September 30, 2017:

	As	As of				
	September 29, 2018 Septemb					
Haoseng Industrial Co., Ltd	32.9%	26.2%				
Super Power International Ltd.	13.6%	*				

* Represents less than 10% of total accounts receivable

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

NOTE 17: SELECTED QUARTERLY FINANCIAL DATA (unaudited)

Presented below is a summary of the unaudited quarterly financial information for fiscal 2018 and 2017 (in thousands, except per share amounts).

		Fiscal 2018 for the Quarter Ended									
(in thousands, except per share amounts)	De	ecember 30		March 30		June 30	Se	eptember 29		Fiscal 2018	
Net revenue	\$	213,691	\$	221,772	\$	268,834	\$	184,824	\$	889,121	
Gross profit		97,202		99,447		126,969		85,823		409,441	
Income from operations		39,159		38,436		64,463		24,574		166,632	
Income tax expense / (benefits)		110,412		4,800		7,282		(1,750)		120,744	
Net (loss) / income	\$	(69,528)	\$	36,313	\$	60,256	\$	29,635	\$	56,676	
Net (loss) / income per share ⁽¹⁾ :											
Basic	\$	(0.99)	\$	0.52	\$	0.87	\$	0.44	\$	0.82	
Diluted	\$	(0.99)	\$	0.51	\$	0.86	\$	0.43	\$	0.80	
Weighted average shares outstanding:											
Basic		70,577		70,361		69,125		67,462		69,380	
Diluted		70,577		71,425		70,302		68,675		70,419	

			Fis	scal 2017 for t	he Q	Quarter Ended				
(in thousands, except per share amounts)	De	cember 31		April 1		July 1	Se	ptember 30	•	Fiscal 2017
Net revenue	\$	149,639	\$	199,613	\$	243,897	\$	215,892	\$	809,041
Gross profit		68,427		92,263		114,003		107,401		382,094
Income from operations		19,059		36,503		15,672		41,849		113,083
Income tax expense / (benefit)		2,573		5,151		(17,657)		2,539		(7,394)
Net income	\$	17,396	\$	32,670	\$	34,809	\$	41,224	\$	126,099
Net income per share ⁽¹⁾ :										
Basic	\$	0.25	\$	0.46	\$	0.49	\$	0.58	\$	1.78
Diluted	\$	0.24	\$	0.45	\$	0.48	\$	0.57	\$	1.75
Weighted average shares outstanding:										
Basic		70,854		70,964		71,063		70,742		70,906
Diluted		71,763		72,270		72,483		72,071		72,063

(1) EPS for the year may not equal the sum of quarterly EPS due to changes in weighted share calculations.

NOTE 18: SUBSEQUENT EVENTS

On November 2, 2018, the Company entered into foreign exchange forward contracts with notional amounts of \$10.9 million. We 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.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and interim Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 29, 2018. Based on that evaluation, the Chief Executive Officer and interim Chief Financial Officer concluded that, as of September 29, 2018 our disclosure controls and procedures were effective in providing reasonable assurance that the information required to be disclosed by us in reports filed under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including the Chief Executive Officer and interim Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure.

Management's Report on Internal Control Over Financial Reporting

The management of Kulicke and Soffa Industries, Inc. (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15(d)-15(f) of the Securities Exchange Act of 1934, as amended. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

The Company's internal control over financial reporting includes those policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles; provide reasonable assurance that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management evaluated the Company's internal control over financial reporting as of September 29, 2018. In making this assessment, management used the framework established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

Based on that assessment, management has concluded that, as of September 29, 2018, the Company's internal control over financial reporting was effective.

The effectiveness of the Company's internal control over financial reporting as of September 29, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report, which appears in Part II, Item 8 of this Form 10-K.

Remediation of Material Weaknesses in Internal Control Over Financial Reporting

We previously disclosed in our Form 10-K/A for the fiscal year ended September 30, 2017, and in our Forms 10-Q and 10 Q/A (as applicable) for each interim period in fiscal 2018, material weaknesses in our internal control over financial reporting in respect of (i) recording and review of manual journal entries related to our warranty accrual and accounts payable and (ii) cash disbursements. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

In order to remediate the material weaknesses identified above, we undertook a number of actions with the oversight of the Audit Committee of the Board of Directors. The following steps were taken to remediate the conditions leading to the above stated material weaknesses:

(i) Material weakness related to manual journal entries:

- Enhanced the procedures and tightened the grant of authority approval requirements for journal entries to improve precision of the review and accountability.
- Conducted town hall meetings throughout the Company's worldwide organization led by executive management to reinforce the Company's corporate culture and its policies and procedures.
- Provided additional training to finance personnel on roles and responsibilities, including line of communications in the event of concerns.
- Changed certain finance management.

(ii) Material weakness related to cash disbursements:

- Revamped bank mandates for certain entities to tighten approval limits for cash disbursements and introduced appropriate executive management as signers to improve accountability.
- Provided additional training to finance personnel on roles and responsibilities, including line of communications in the event of concerns.

Management has implemented the remediation actions discussed above, and has had sufficient time to test the design and operating effectiveness as of September 29, 2018.

Changes in Internal Control over Financial Reporting

There has been no change in the Company's internal control over financial reporting during the three months ended September 29, 2018, that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by Item 401 of Regulation S-K with respect to the directors and executive officers will appear under the heading "ITEM 1 - ELECTION OF DIRECTORS" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference. The other information required by Item 401 of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Item 405 of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE - Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Item 406 of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE - Code of Ethics" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Item 407(c)(3) of Regulation will appear under the headings "CORPORATE GOVERNANCE-Nominating and Governance Committee" and "Shareholder Proposals" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Items 407(d)(4) and (d)(5) of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE-Audit Committee" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

Item 11. EXECUTIVE COMPENSATION

The information required by Item 402 of Regulation S-K will appear under the heading "COMPENSATION OF EXECUTIVE OFFICERS," in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Item 407(e)(4) of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE-Management Development and Compensation Committee Interlocks and Insider Participation" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Item 407(e)(5) of Regulation S-K will appear under the heading "MANAGEMENT DEVELOPMENT AND COMPENSATION COMMITTEE REPORT" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required hereunder concerning security ownership of certain beneficial owners and management will appear under the headings "CORPORATE GOVERNANCE - Security Ownership Of Certain Beneficial Owners" and "CORPORATE GOVERNANCE - SECURITY OWNERSHIP OF DIRECTORS, NOMINEES AND EXECUTIVE OFFICERS", in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference. The information required by this item relating to securities authorized for issuance under equity compensation plans is included under the heading "EQUITY COMPENSATION PLAN INFORMATION" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by Item 404 of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE - Certain Relationships and Related Transactions" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

The information required by Section 407(a) of Regulation S-K will appear under the heading "CORPORATE GOVERNANCE -Board Matters" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required hereunder will appear under the heading "AUDIT AND RELATED FEES" in the Company's Proxy Statement for the 2019 Annual Meeting of Shareholders, which information is incorporated herein by reference.

Part IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

		Page
(1)	Financial Statements - Kulicke and Soffa Industries, Inc.:	
	Report of Independent Registered Public Accounting Firm	40
	Consolidated Balance Sheets as of September 29, 2018 and September 30, 2017	42
	Consolidated Statements of Operations for fiscal 2018, 2017 and 2016	43
	Consolidated Statements of Comprehensive Income for fiscal 2018, 2017 and 2016	44
	Consolidated Statements of Changes in Shareholders' Equity for fiscal 2018, 2017 and 2016	45
	Consolidated Statements of Cash Flows for fiscal 2018, 2017 and 2016	46
	Notes to Consolidated Financial Statements	47
(2)	Financial Statements and Schedules:	

Schedule II - Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or notes thereto.

(3) Exhibits:

EXHIBIT NUMBER

ITEM

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- 3.1 The Company's Amended and Restated Articles of Incorporation, dated December 5, 2007, is incorporated herein by reference to Exhibit 3(i) to the Company's Annual Report on Form 10-K for the fiscal year ended September 29, 2007, SEC file number 000-00121.
- 3.2 The Company's Amended and Restated By-Laws, dated October 22, 2015, is incorporated herein by reference to Exhibit 3(ii) to the Company's Current Report on Form 8-K dated October 22, 2015.
- 4.1 Specimen Common Share Certificate of Kulicke and Soffa Industries Inc., is incorporated herein by reference to Exhibit 4 to the Company's Form-8A12G/A dated September 11, 1995, SEC file number 000-00121.
- 10.1 2009 Equity Plan is incorporated herein by reference to Appendix A to the Company's Proxy Statement on Schedule 14A for the annual meeting of shareholders on February 10, 2009.*
- 10.2 Amendment No. 1 to the Kulicke and Soffa Industries, Inc. 2009 Equity Plan, effective September 15, 2009, is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 18, 2009.*
- 10.3 Amendment No. 2 to the Kulicke and Soffa Industries, Inc. 2009 Equity Plan, effective September 30, 2009, is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 18, 2009.*
- 10.4 Amendment No. 3 to the Kulicke and Soffa Industries, Inc. 2009 Equity Plan, effective September 21, 2012, in incorporated herein by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K filed on December 7, 2012.*
- 10.5 Form of Officer Restricted Share Unit Award Agreement regarding the 2009 Equity Plan, is incorporated herein by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K dated December 9, 2010.*
- 10.6 Form of Officer Restricted Share Unit Award Agreement regarding the 2009 Equity Plan, is incorporated herein by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K dated December 7, 2012.*
- 10.7 Kulicke & Soffa Industries, Inc. Executive Severance Pay Plan, dated as of August 9, 2011, is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 12, 2011.*

- 10.8 Kulicke & Soffa Industries, Inc. Officer Severance Pay Plan, dated as of August 9, 2011, is incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on August 12, 2011.* 10.9 Form of Change of Control Agreement, is incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on August 12, 2011.* 10.10 Form of Officer Strategic Performance Share Unit Award Agreement regarding the 2009 Equity Plan is incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 29, 2012.* Form of Director Indemnification Agreement is incorporated herein by reference to Exhibit 10.1 to 10.11 the Company's Current Report on Form 8-K filed on October 10, 2013.* 10.12 Lease Agreement between DBS Trustee Limited, as trustee of Mapletree Industrial Trust, and the Kulicke & Soffa Pte. Ltd, dated December 1, 2013, is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 5, 2013. 10.13 Lease Agreement Variation Letter between DBS Trustee Limited, as trustee of Mapletree Industrial Trust, and the Kulicke & Soffa Pte. Ltd, dated December 1, 2013, is incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on December 5, 2013. 10.14 Form of Officer Indemnification Agreement is incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 11, 2013.* 10.15 Amended and Restated Incentive Compensation Plan, incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on May 8, 2014.* 10.16 Share Sale and Purchase Agreement between Kulicke & Soffa Holdings, B.V. and Assembléon Holding B.V., dated December 29, 2014, incorporated herein by reference to Exhibit 10.1 of the
- Company's Quarterly Report on Form 10-Q for the quarterly period ended December 27, 2014.
 Offer Letter between the Company and Deepak Sood, dated October 25, 2012, incorporated herein by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarterly.
- by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 27, 2014.*
 10.18 Offer Letter between the Company and Yih Neng Lee, dated June 21, 2013, incorporated herein by
- reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 27, 2014.*
- 10.19 Offer Letter between the Company and Irene Lee, dated January 28, 2014, incorporated herein by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 27, 2014.*
- 10.20 Incentive Compensation Plan, incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on September 25, 2015.*
- 10.21 Kulicke & Soffa Industries, Inc. 2009 Equity Plan Restricted Share Unit Award Agreement, incorporated herein by reference to Exhibit 10.35 of the Company's Annual Report on Form 10-K for the year ended October 1, 2015.*
- 10.22 Offer Letter between Kulicke and Soffa Industries, Inc. and Fusen Chen dated October 3, 2016, incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on October 3, 2016.*
- 10.23 Agreement For Purchase and Sale of Real Property, dated January 11, 2017, between the Company and ARC KSFTWPA001, LLC, incorporated herein by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2016.
- 10.24 2017 Equity Plan is incorporated herein by reference to Appendix A to the Company's Proxy Statement on Schedule 14A for the annual meeting of shareholders on March 14, 2017.*
- 10.25 Form of Performance Share Unit Award Agreement regarding the 2017 Equity Plan is incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on November 6, 2017.
- 10.26 Form of Restricted Share Unit Award Agreement regarding the 2017 Equity Plan is incorporated herein by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed on November 6, 2017.
- 21 Subsidiaries of the Company.
- 23 Consent of PricewaterhouseCoopers LLP (Independent Registered Public Accounting Firm).
- 31.1 Certification of Fusen Chen, Chief Executive Officer of Kulicke and Soffa Industries, Inc., pursuant to Rule 13a-14(a) or Rule 15d-14(a).

- 31.2 Certification of Lester Wong, Interim Chief Financial Officer of Kulicke and Soffa Industries, Inc., pursuant to Rule 13a-14(a) or Rule 15d-14(a).
- 32.1 Certification of Fusen Chen, Chief Executive Officer of Kulicke and Soffa Industries, Inc., pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of Lester Wong, Interim Chief Financial Officer of Kulicke and Soffa Industries, Inc., pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance Document.
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document.

* Indicates a management contract or compensatory plan or arrangement

** Copies of certain instruments defining the rights of holders of certain of our long-term debt are not filed herewith. We hereby agree to furnish a copy of any such instrument to the SEC upon request.

KULICKE AND SOFFA INDUSTRIES, INC. Schedule II-Valuation and Qualifying Accounts

Fiscal 2018:	Beginning of period	Charged to Costs and Expenses	Other Additions	Other Deductions	End of period
Allowance for doubtful accounts	\$ 79	\$ 383	\$	\$ (77) (1) \$	385
Inventory reserve	\$ 24,639	\$ 4,897	<u> </u>	\$ (2,647) (2) <u></u>	26,889
Valuation allowance for deferred taxes	\$ 29,614	\$	(3) <u>\$ 7,635</u>	<u>\$ </u>	37,249
Fiscal 2017:					
Allowance for doubtful accounts	\$ 506	\$ (136)	\$	\$ (291) (1) \$	79
Inventory reserve	\$ 21,080	\$ 10,925	\$	\$ (7,366) (2) \$	24,639
Valuation allowance for deferred taxes	\$ 27,381	<u>\$</u>	(3) <u>\$ 2,233</u>	<u>\$ </u>	29,614
Fiscal 2016:					
Allowance for doubtful accounts	\$ 621	\$ (115)	<u>\$ </u>	<u>\$ </u>	506
Inventory reserve	\$ 19,073	\$ 6,676	<u> </u>	\$ (4,669) (2) \$	21,080
Valuation allowance for deferred taxes	\$ 23,128	\$ 563	(3) <u>\$ 3,690</u>	<u>\$ </u>	27,381

(1) Represents write-offs of specific accounts receivable.

(2) Sale or scrap of previously reserved inventory.

(3) Reflects increase/decrease in the valuation allowance primarily associated with the Company's U.S. and foreign net operating losses and other deferred tax assets.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

KULICKE AND SOFFA INDUSTRIES, INC.

By: /s/ FUSEN CHEN

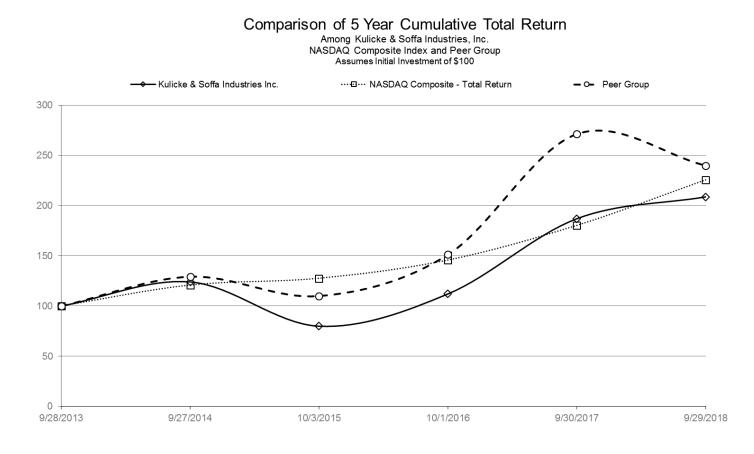
Fusen Chen President and Chief Executive Officer

Dated: November 20, 2018

<u>Signature</u>	<u>Title</u>	Date
<u>/s/ FUSEN CHEN</u> Fusen Chen	President and Chief Executive Officer (principal executive officer)	November 20, 2018
<u>/s/ LESTER WONG</u> Lester Wong	Senior Vice President, Interim Chief Financial Officer and General Counsel (principal financial officer and principal accounting officer)	November 20, 2018
<u>/s/ GARRETT E. PIERCE</u> Garrett E. Pierce	Director	November 20, 2018
<u>/s/ BRIAN R. BACHMAN</u> Brian R. Bachman	Director	November 20, 2018
<u>/s/ CHIN HU LIM</u> Chin Hu Lim	Director	November 20, 2018
<u>/s/ GREGORY F. MILZCIK</u> Gregory F. Milzcik	Director	November 20, 2018
<u>/s/ MUI SUNG YEO</u> Mui Sung Yeo	Director	November 20, 2018
<u>/s/ PETER T. KONG</u> Peter T. Kong	Director	November 20, 2018

STOCK PERFORMANCE GRAPH

The performance graph below shows the five-year cumulative total stockholder returns to holders of common shares of the Company with the cumulative total return of a peer group selected by the Company and of the NASDAQ Composite Index. The peer group is focused on companies that manufacture equipment and materials similar to the equipment and materials manufactured by the Company, and is composed, in part, by reference to peer group lists that the Company believes are commonly used by institutional investors and financial research analysts when evaluating Company performance. The Company believes that the peer group provides a useful reference point for investors when evaluating Company performance across the semiconductor assembly equipment industry business cycle. The peer group is composed of ASM Pacific Technology Ltd., BE Semiconductor Industries, N.V., Brooks Automation Inc., Cohu, Inc., KLA-Tencor Corp., LAM Research Corp., Xcerra Corporation, Shinkawa Ltd., Teradyne Inc., and Veeco Instruments Inc. The graph assumes that the value of the investment in the relevant stock or index was \$100 at September 28, 2013 and that all dividends were reinvested. Total returns are calculated based on the Kulicke & Soffa Industries, Inc. fiscal year calendar. For purposes of the peer group index, the peer group companies have been weighted based upon their relative market capitalization. The closing sale price of the Company's common shares as of September 29, 2018 was \$23.84.



COMPANY INFORMATION As of December 2018

Corporate Locations

Corporate Headquarters

Kulicke and Soffa Industries, Inc. 23A Serangoon North Avenue 5 #01-01 Singapore 554369

Technology Centers

Berg, Switzerland Eindhoven, the Netherlands Fort Washington, Pennsylvania Santa Ana, California Singapore Suzhou, China Yokneam Elite, Israel

Equipment Manufacturing Facilities

Eindhoven, the Netherlands Santa Ana, California Singapore

Expendable Tools Manufacturing Facilities

Suzhou, China Yokneam Elite, Israel

Additional Information

Independent Accountants

PricewaterhouseCoopers, LLP Singapore

Registrar and Transfer Agent

American Stock Transfer & Trust 6201 15th Avenue Brooklyn, New York 11219 800-937-5449

NASDAQ Symbol: KLIC

Supplemental Investor Information

An electronic copy of the 2018 Annual Report, Proxy Statement, SEC filings and supplemental investor information are available in the Investor section of the Company's corporate website at investor.kns.com.

For additional information please contact:

Investor Relations +1-215-784-7500 investor@kns.com

LEADERSHIP TEAM

Kulicke & Soffa's highly experienced board of directors and executive officers continue to leverage the Company's strengths and execute new and challenging corporate objectives. The unique perspective and broad diversity of the management team are important factors to the Company's ongoing success in the dynamic and evolving markets it serves.

EXECUTIVE OFFICERS

Fusen E. Chen President & Chief Executive Officer

Hoang Huy Hoang Executive Vice President, Global Sales, Aftermarket Products & Services Business Unit

Chan Pin Chong Senior Vice President, Electronics Assembly, AP-Hybrid & Wedge Bonder Business Units

Joyce Lim Senior Vice President, Global Operations & Supply Chain

Lester Wong Senior Vice President, Interim Chief Financial Officer & General Counsel

BOARD OF DIRECTORS

Garrett E. Pierce Chairman of the Board Kulicke & Soffa Industries, Inc. Retired Chief Financial Officer Orbital ATK. Inc.

Brian R. Bachman Private Investor

Fusen E. Chen President & Chief Executive Officer Kulicke & Soffa Industries, Inc.

Lim Chin Hu Non-Executive Director Singapore Exchange Ltd. Non-Executive Director Singapore Technologies Engineering, Ltd. Non-Executive Director Citibank Singapore Limited Nelson Wong Senior Vice President, Ball Bonder Business Unit

Shubneesh Batra Vice President, Advanced Packaging Business Unit

Tong Liang Cheam Vice President, Corporate Strategy

Lisa Lim Vice President, Global Human Resources

Deepak Sood Vice President, Lithography Business Unit & Central Engineering

Peter T. Kong Retired President Global Components Arrow Electronics, Inc.

Gregory F. Milzcik Retired President & Chief Executive Officer Barnes Group Inc.

Yeo Mui Sung Managing Director Omeyon Pte, Ltd.