

ALPHA & OMEGA SEMICONDUCTOR Ltd
Form 10-Q
February 08, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

(MARK ONE)

For the quarterly period ended December 31, 2017

OR

FOR THE TRANSITION PERIOD FROM TO
Commission file number 001-34717

Bermuda	77-0553536
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)
Clarendon House, 2 Church Street	
Hamilton HM 11, Bermuda	
(Address of Principal Registered	
Offices including Zip Code)	
(408) 830-9742	
(Registrant's Telephone Number, Including Area Code)	

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

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

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

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

Smaller reporting company ☐ Emerging growth company ☐

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

Exchange Act. ☐

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

Number of common shares outstanding as of January 31, 2018: 23,948,076

Alpha and Omega Semiconductor Limited
Form 10-Q
Fiscal First Quarter Ended December 31, 2017
TABLE OF CONTENTS

	Page
Part I. <u>FINANCIAL INFORMATION</u>	
Item 1. <u>Financial Statements:</u>	<u>1</u>
<u>Condensed Consolidated Balance Sheets as of December 31, 2017 and June 30, 2017 (Unaudited)</u>	<u>1</u>
<u>Condensed Consolidated Statements of Operations for the Three and Six Months Ended December 31, 2017 and 2016 (Unaudited)</u>	<u>2</u>
<u>Condensed Consolidated Statements of Comprehensive Income (Loss) for the Three and Six Months Ended December 31, 2017 and 2016 (Unaudited)</u>	<u>3</u>
<u>Condensed Consolidated Statements of Cash Flows for the Six Months Ended December 31, 2017 and 2016 (Unaudited)</u>	<u>4</u>
<u>Notes to Condensed Consolidated Financial Statements (Unaudited)</u>	<u>5</u>
Item 2. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>19</u>
Item 3. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>31</u>
Item 4. <u>Controls and Procedures</u>	<u>31</u>
Part II. <u>OTHER INFORMATION</u>	
Item 1. <u>Legal Proceedings</u>	<u>32</u>
Item 1A. <u>Risk Factors</u>	<u>32</u>
Item 2. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>34</u>
Item 3. <u>Defaults Upon Senior Securities</u>	<u>35</u>
Item 4. <u>Mine Safety Disclosures</u>	<u>35</u>
Item 5. <u>Other Information</u>	<u>35</u>
Item 6. <u>Exhibits</u>	<u>36</u>
<u>Signatures</u>	<u>37</u>

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
CONDENSED CONSOLIDATED BALANCE SHEETS

(Unaudited, in thousands except par value per share)

	December 31, 2017	June 30, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 146,209	\$ 115,708
Restricted cash	192	221
Accounts receivable, net	24,283	28,410
Inventories	85,672	76,254
Other current assets	8,942	4,883
Total current assets	265,298	225,476
Property, plant and equipment, net	193,253	148,191
Intangible assets, net	14,599	282
Deferred income tax assets - long-term	4,600	4,594
Other long-term assets	42,801	19,865
Total assets	\$ 520,551	\$ 398,408
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 70,521	\$ 63,134
Accrued liabilities	51,238	28,386
Income taxes payable	1,280	1,748
Deferred margin	1,386	814
Capital leases	846	828
Total current liabilities	125,271	94,910
Income taxes payable - long-term	941	922
Deferred income tax liabilities	442	2,659
Capital leases - long-term	449	866
Other long-term liabilities	396	502
Total liabilities	127,499	99,859
Commitments and contingencies (Note 10)		
Equity:		
Preferred shares, par value \$0.002 per share:		
Authorized: 10,000 shares, issued and outstanding: none at December 31, 2017 and June 30, 2017	—	—
Common shares, par value \$0.002 per share:		
Authorized: 100,000 shares, issued and outstanding: 29,856 shares and 23,908 shares, respectively at December 31, 2017 and 29,600 shares and 23,992 shares, respectively at June 30, 2017		59
Treasury shares at cost, 5,948 shares at December 31, 2017 and 5,608 shares at June 30, 2017	(55,799)	(49,836)
Additional paid-in capital	212,771	206,332
Accumulated other comprehensive income	2,455	306

Edgar Filing: ALPHA & OMEGA SEMICONDUCTOR Ltd - Form 10-Q

Retained earnings	120,023	113,909
Total Alpha and Omega Semiconductor Limited shareholder's equity	279,510	270,770
Noncontrolling interest	113,542	27,779
Total equity	393,052	298,549
Total liabilities and equity	\$ 520,551	\$ 398,408

See accompanying notes to these condensed consolidated financial statements.

Table of Contents

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
 CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
 (Unaudited, in thousands except per share data)

	Three Months Ended December 31,		Six Months Ended December 31,	
	2017	2016	2017	2016
Revenue	\$103,896	\$94,687	\$208,754	\$192,049
Cost of goods sold	75,814	72,593	153,142	148,011
Gross profit	28,082	22,094	55,612	44,038
Operating expenses				
Research and development	9,102	7,284	17,427	14,303
Selling, general and administrative	15,756	11,974	30,371	23,157
Total operating expenses	24,858	19,258	47,798	37,460
Operating income	3,224	2,836	7,814	6,578
Interest income and other loss, net	(160)	(70)	(120)	(119)
Interest expense	(14)	(24)	(31)	(50)
Net income before income taxes	3,050	2,742	7,663	6,409
Income tax expense (benefit)	(2,072)	1,085	(798)	2,322
Net income including noncontrolling interest	5,122	1,657	8,461	4,087
Net loss attributable to noncontrolling interest	(1,669)	(1,190)	(3,130)	(2,067)
Net income attributable to Alpha and Omega Semiconductor Limited	\$6,791	\$2,847	\$11,591	\$6,154
Net income per common share attributable to Alpha and Omega Semiconductor Limited				
Basic	\$0.28	\$0.12	\$0.48	\$0.26
Diluted	\$0.27	\$0.11	\$0.46	\$0.25
Weighted average number of common shares attributable to Alpha and Omega Semiconductor Limited used to compute net income per share				
Basic	23,925	23,481	23,973	23,256
Diluted	25,033	24,977	24,997	24,695

See accompanying notes to these condensed consolidated financial statements.

Table of Contents

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited, in thousands)

	Three Months Ended December 31,		Six Months Ended December 31,	
	2017	2016	2017	2016
Net income including noncontrolling interest	\$5,122	\$1,657	8,461	4,087
Other comprehensive income, net of tax				
Foreign currency translation adjustment	3,347	(2,326)	4,048	(2,256)
Comprehensive income (loss)	8,469	(669)	12,509	1,831
Noncontrolling interest	(104)	(2,234)	(1,231)	(3,132)
Comprehensive income attributable to Alpha and Omega Semiconductor Limited	\$8,573	\$1,565	\$13,740	\$4,963

See accompanying notes to these condensed consolidated financial statements.

Table of Contents

ALPHA AND OMEGA SEMICONDUCTOR LIMITED

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited, in thousands)

	Six Months Ended December 31,	
	2017	2016
Cash flows from operating activities		
Net income	\$8,461	\$4,087
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	14,386	13,263
Share-based compensation expense	6,017	2,870
Deferred income taxes, net	(2,224)	6,581
Loss (Gain) on disposal of property and equipment	55	(370)
Changes in assets and liabilities:		
Accounts receivable, net	4,127	2,112
Inventories	(9,418)	(1,391)
Other current and long-term assets	(9,081)	(7,032)
Accounts payable	1,877	(4,605)
Income taxes payable	(448)	257
Accrued and other liabilities	8,102	2,297
Net cash provided by operating activities	21,854	18,069
Cash flows from investing activities		
Purchases of property and equipment excluding JV Company	(23,192)	(11,371)
Purchases of property and equipment in JV Company	(41,576)	(3,632)
Purchases of land use rights in JV Company	—	(8,737)
Purchase of intangible assets	(10,384)	—
Proceeds from sale of property and equipment	—	411
(Increase) decrease in restricted cash	29	(135)
Net cash used in investing activities	(75,123)	(23,464)
Cash flows from financing activities		
Proceeds from investment by noncontrolling interest	86,994	33,000
Withholding tax on restricted stock units	(249)	(348)
Proceeds from exercise of stock options and ESPP	2,205	8,729
Payment for repurchases of common shares	(6,022)	—
Principal payments on capital leases	(399)	(408)
Net cash provided by financing activities	82,529	40,973
Effect of exchange rate changes on cash and cash equivalents	1,241	(559)
Net increase in cash and cash equivalents	30,501	35,019
Cash and cash equivalents at beginning of period	115,708	87,774
Cash and cash equivalents at end of period	\$146,209	\$122,793
Supplemental disclosures of non-cash investing and financing information:		
Property and equipment purchased but not yet paid	\$43,235	\$5,153
Re-issuance of treasury stock	\$3	\$59

See accompanying notes to these condensed consolidated financial statements.

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. The Company and Significant Accounting Policies

The Company

Alpha and Omega Semiconductor Limited and its subsidiaries (the "Company," "AOS," "we" or "us") design, develop and supply a broad range of power semiconductors. The Company's portfolio of products targets high-volume applications, including personal computers, flat panel TVs, LED lighting, smart phones, battery packs, consumer and industrial motor controls and power supplies for TVs, computers, servers and telecommunications equipment. The Company conducts its operations primarily in the United States of America ("USA"), Hong Kong, China, Taiwan, Korea, Germany and Japan.

Basis of Preparation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") for interim financial information and with the instructions to Article 10 of Securities and Exchange Commission Regulation S-X, as amended. They do not include all information and footnotes necessary for a fair presentation of financial position, results of operations and cash flows in conformity with U.S. GAAP for complete financial statements. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and related notes contained in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2017. All significant intercompany balances and transactions have been eliminated in consolidation. In the opinion of management, all adjustments (consisting of normal recurring adjustments and accruals) considered necessary for a fair presentation of the results of operations for the periods presented have been included in the interim periods. Operating results for the six months ended December 31, 2017 are not necessarily indicative of the results that may be expected for the fiscal year ending June 30, 2018. The condensed consolidated balance sheet at June 30, 2017 is derived from the audited financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2017.

Joint Venture

In March 2016, the Company executed an agreement with two strategic investment funds owned by the Municipality of Chongqing, China (the "Chongqing Funds") to form a joint venture for a new state-of-the-art power semiconductor packaging, testing and wafer fabrication facility in Liangjiang New Area of Chongqing (the "Joint Venture"). The initial capitalization of the Joint Venture under the agreement is \$330.0 million, which includes cash contributions from the Chongqing Funds and contributions of cash, equipment and intangible assets from the Company. The Company owns 51% and the Chongqing Funds own 49% of the equity interest of the Joint Venture. The Joint Venture is accounted under the provisions of the consolidation guidance since the Company has a controlling financial interest.

Use of Estimates

The preparation of the condensed consolidated financial statements in conformity with U.S. GAAP requires the Company to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses. To the extent there are material differences between these estimates and actual results, the Company's condensed consolidated financial statements will be affected. On an ongoing basis, the Company evaluates the estimates, judgments and assumptions including those related to stock rotation returns, price adjustments, allowance for doubtful accounts, inventory reserves, warranty accrual, income taxes, share-based compensation, and useful lives for property, plant and equipment and intangible assets.

Fair Value of Financial Instruments

The fair values of cash equivalents are based on observable market prices and have been categorized in Level 1 in the fair value hierarchy. Cash equivalents consist primarily of short term bank deposits. The carrying values of financial instruments such as cash and cash equivalents, accounts receivable and accounts payable approximate their carrying values due to their short-term maturities.

Comprehensive Income (Loss)

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. The Company's accumulated other comprehensive income (loss) consists of cumulative foreign currency translation adjustments. Total comprehensive income (loss) is presented in the condensed consolidated statements of comprehensive income (loss).

Recent Accounting Pronouncements

In May 2017, the FASB issued Accounting Standard Updates ("ASU") ASU 2017-09, "Compensation -Stock Compensation: Scope of Modification Accounting ("ASU 2017-09"). ASU 2017-09 is an update to the existing guidance to clarify when modification accounting would be applied for a change to the terms or conditions of a share-based award. Under this new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award changes as a result of the change in terms or conditions. This ASU will be effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017 with early adoption permitted. The Company does not regularly modify the terms and conditions of its share-based awards and does not expect the adoption of this guidance to have a significant impact on its financial statements.

In November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows: Restricted Cash ("ASU 2016-18"). ASU 2016-18 requires amounts generally described as restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the total beginning and ending amounts for the periods shown on the statement of cash flows. This ASU will be effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption permitted and requires retrospective adoption. The Company does not expect the adoption of this guidance will have a material impact on its consolidated financial position, results of operations or cash flows.

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments ("ASU 2016-15"). ASU 2016-15 identifies how certain cash receipts and cash payments are presented and classified in the Statement of Cash Flows under Topic 230. ASU 2016-15 is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption permitted. Upon adoption, entities must apply the guidance retrospectively to all periods presented. The Company is currently evaluating the impact the adoption of ASU 2016-15 will have on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. This guidance requires a dual approach for lessee accounting under which a lessee will account for leases as finance leases or operating leases. Both finance and operating leases will result in the lessee recognizing a right-of-use asset and a corresponding liability on its balance sheet, with differing methodology for income statement recognition. This guidance is effective for public business entities for fiscal years, and interim periods within those years, beginning after December 15, 2018, and early adoption is permitted. A modified retrospective approach is required for all leases existing or entered into after the beginning of the earliest comparative period in the consolidated financial statements. The Company is currently assessing the impact that adoption of this guidance will have on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers. The standard provides companies with a single model for use in accounting for revenue arising from contracts with customers and supersedes current revenue recognition guidance, including industry-specific revenue guidance. The core principle of the model is to recognize revenue when control of the goods or services transfers to the customer, as opposed to recognizing revenue when the risks and rewards transfer to the customer under the existing revenue guidance. The Company will adopt the new revenue standards in its first quarter of fiscal year 2019 utilizing the modified retrospective method. The Company is still in the process of completing its analysis on the transition of all revenue from distributors from

sell-through to the sell-in basis of accounting, as well as impact of related disclosures and its internal controls over financial reporting.

The following table presents the calculation of basic and diluted net income per share attributable to common shareholders:

	Three Months Ended December 31, 2017		Six Months Ended December 31, 2016	
	2017	2016	2017	2016
	(in thousands, except per share data)			
Numerator:				
Net income attributable to Alpha and Omega Semiconductor Limited	\$6,791	\$2,847	\$11,591	\$6,154
Denominator:				
Basic:				
Weighted average number of common shares used to compute basic net income per share	23,925	23,481	23,973	23,256
Diluted:				
Weighted average number of common shares used to compute basic net income per share	23,925	23,481	23,973	23,256
Effect of potentially dilutive securities:				
Stock options, RSUs and ESPP shares	1,108	1,496	1,024	1,439
Weighted average number of common shares used to compute diluted net income per share	25,033	24,977	24,997	24,695
Net income per share attributable to Alpha and Omega Semiconductor Limited:				
Basic	\$0.28	\$0.12	\$0.48	\$0.26
Diluted	\$0.27	\$0.11	\$0.46	\$0.25

The following potential dilutive securities were excluded from the computation of diluted net income per share as their effect would have been anti-dilutive:

	Three Months Ended December 31, 2017	2016	Six Months Ended December 31, 2017	2016
	(in thousands)		(in thousands)	
Employee stock options and RSUs	165	—	169	123
ESPP	—	16	45	8
Total potential dilutive securities	165	16	214	131

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

3. Concentration of Credit Risk and Significant Customers

The Company manages its credit risk associated with exposure to distributors and direct customers on outstanding accounts receivable through the application and review of credit approvals, credit ratings and other monitoring procedures. In some instances, the Company also obtains letters of credit from certain customers.

Credit sales, which are mainly on credit terms of 30 to 60 days, are only made to customers who meet the Company's credit requirements, while sales to new customers or customers with low credit ratings are usually made on an advance payment basis. The Company considers its trade accounts receivable to be of good credit quality because its key distributors and direct customers have long-standing business relationships with the Company and the Company has not experienced any significant write-offs of accounts receivable in the past. The Company closely monitors the aging of accounts receivable from its distributors and direct customers, and regularly reviews their financial positions, when available.

Summarized below are individual customers whose revenue or accounts receivable balances were more than 10% of the respective total consolidated amounts:

	Three Months Ended December 31,		Six Months Ended December 31,	
Percentage of revenue	2017	2016	2017	2016
Customer A	30.8%	27.0%	29.2%	25.6%
Customer B	33.7%	35.8%	33.8%	36.2%
Customer C	*	10.7%	*	12.3%

* Less than 10%

	December 31, 2017		June 30, 2017	
Percentage of accounts receivable		%		%
Customer A	35.7	%	33.2	%
Customer B	19.1	%	13.2	%
Customer C	12.6	%	16.4	%

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

4. Balance Sheet Components

Accounts receivable, net:

	December 31, 2017	June 30, 2017
	(in thousands)	
Accounts receivable	\$45,438	\$48,039
Less: Allowance for price adjustments	(21,125)	(19,599)
Less: Allowance for doubtful accounts	(30)	(30)
Accounts receivable, net	\$24,283	\$28,410

Inventories:

	December 31, 2017	June 30, 2017
	(in thousands)	
Raw materials	\$39,198	\$32,118
Work in-process	34,994	36,081
Finished goods	11,480	8,055
	\$85,672	\$76,254

Property, plant and equipment, net:

	December 31, 2017	June 30, 2017
	(in thousands)	
Land	\$4,877	\$4,877
Building	4,325	4,325
Manufacturing machinery and equipment	241,206	215,275
Equipment and tooling	14,641	13,549
Computer equipment and software	25,066	24,346
Office furniture and equipment	2,055	1,935
Leasehold improvements	29,507	29,136
Land use rights	9,242	8,849
	330,919	302,292
Less: accumulated depreciation	(212,058)	(194,882)
	118,861	107,410
Equipment and construction in progress	74,392	40,781
Property, plant and equipment, net	\$193,253	\$148,191

Intangible assets, net:

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

	December 31, 2017	June 30, 2017
	(in thousands)	
License fees	\$15,584	\$1,248
Trade name	268	268
Customer relationships	1,150	1,150
	17,002	2,666
Less: accumulated amortization	(2,672)	(2,653)
	14,330	13
Goodwill	269	269
Intangible assets, net	\$14,599	\$282

Intangible assets of license fees are primarily related to a license agreement that the Company entered into with STMicroelectronics International N.V. ("STMicro") on September 5, 2017, pursuant to which STMicro granted the Company a world-wide, royalty-free and fully-paid license to use its technologies to develop, market and distribute certain digital multi-phase controller products, which have been offered by STMicro. This agreement allows the Company to develop and market products in a new market, primarily in the computer server segment. Under the license agreement, the Company agreed to pay a total price in cash of \$17.0 million based on the payment schedule of, approximately \$10.1 million, \$6.7 million, \$0.2 million in calendar year 2017, 2018 and 2019, respectively. As of December 31, 2017, the Company recorded \$13.8 million in intangible assets, of which \$9.8 million in cash was paid to STMicro. The Company begins amortizing such license fees when the technology has met the Company's qualification.

Other long-term assets:

	December 31, 2017	June 30, 2017
	(in thousands)	
Prepayments for property and equipment	\$36,359	\$12,964
Investment in a privately held company	700	700
Prepaid income tax	—	4,377
Long-term deposits	5,386	1,608
Other	356	216
	\$42,801	\$19,865

Accrued liabilities:

	December 31, 2017	June 30, 2017
	(in thousands)	
Accrued compensation and benefits	\$21,963	\$13,727
Warranty accrual	767	1,866
Stock rotation accrual	1,611	1,871
Accrued professional fees	1,856	2,500
Accrued inventory	1,008	410
Accrued facilities related expenses	1,820	1,501
Accrued property, plant and equipment	16,321	2,241
Other accrued expenses	5,892	4,270
	\$51,238	\$28,386

The activities in the warranty accrual, included in accrued liabilities, are as follows:

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

	Six Months Ended December 31,	
	2017	2016
	(in thousands)	
Beginning balance	\$1,866	\$1,495
Additions (Reductions)	(1,063)	*1,040
Utilization	(36)	(153)
Ending balance	\$767	\$2,382

* Released a specific warranty reserve of approximately \$1.0 million due to expired warranty period.

The activities in the stock rotation accrual, included in accrued liabilities, are as follows:

	Six Months Ended December 31,	
	2017	2016
	(in thousands)	
Beginning balance	\$1,871	\$1,988
Additions	992	3,008
Utilization	(1,252)	(3,289)
Ending balance	\$1,611	\$1,707

5. Debt

On August 15, 2017, the Company's Oregon subsidiary, Jireh Semiconductor Incorporated ("Jireh"), entered into a credit agreement with a financial institution (the "Bank") that provides a term loan in an amount up to \$30.0 million for the purpose of purchasing certain equipment for our fabrication facility located in Oregon. The obligation under the credit agreement is secured by substantially all assets of Jireh and guaranteed by the Company. The credit agreement has a five-year term and matures on August 15, 2022. On January 12, 2018, Jireh drew down the loan in the amount of \$13.2 million. Beginning of September 2018, Jireh is required to pay to the Bank on each payment date, the outstanding principal amount of the loan in monthly installments. The loan accrues interest based on an adjusted London Interbank Offered Rate ("LIBOR") as defined in the credit agreement, plus specified applicable margin in the range of 1.75% to 2.25%, based on the outstanding balance of the loan. The credit agreement contains customary restrictive covenants and includes certain financial covenants that require the Company to maintain, on a consolidated basis, specified financial ratios and fixed charge coverage ratio. As of December 31, 2017, the Company recorded approximately \$0.1 million of transaction costs.

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

6. Joint Venture

On March 29, 2016, the Company entered into a joint venture contract (the “JV Agreement”) with two investment funds owned by the Municipality of Chongqing (the “Chongqing Funds”), pursuant to which the Company and the Chongqing Funds formed a joint venture, (the “JV Company”), for the purpose of constructing and operating a power semiconductor packaging, testing and 12-inch wafer fabrication facility in the Liangjiang New Area of Chongqing, China (the “JV Transaction”). The total initial capitalization of the JV Company is \$330.0 million (the “Initial Capitalization”), which includes cash contribution from the Chongqing Funds and contributions of cash, equipment and intangible assets from the Company. The Initial Capitalization is expected to be completed in stages. The Company owns 51%, and the Chongqing Funds own 49%, of the equity interest in the JV Company. If both parties agree that the termination of the JV Company is in the best interest of each party or the JV Company is bankrupt or insolvent where either party may terminate early, after paying the debts of the JV Company, the remaining assets of the JV Company shall be paid to the Chongqing Funds to cover the principal of its total paid-in contributions plus interest at 10% simple annual rate prior to distributing the balance of the JV Company's assets to the Company. The Company expects the JV Company to commence initial production in mid-calendar year 2018.

There is no private land ownership in China. Individuals and companies are permitted to acquire land use rights for specific purpose. In September 2016, the JV Company paid approximately \$8.7 million for land use rights to build the manufacturing facility. In March 2017, the JV Company received the necessary land use right certificate from the PRC government. The land use rights will expire on November 30, 2066.

As part of the JV Transaction, the JV Company entered into an Engineering, Procurement and Construction Contract (the “EPC Contract”) with The IT Electronics Eleventh Design & Research Institute Scientific and Technological Engineering Corporation Limited (the “Contractor”), effective as of January 10, 2017 (the “Effective Date”), pursuant to which the Contractor was engaged to construct the manufacturing facility contemplated under the JV Agreement. Under the EPC Contract, the Contractor’s obligations include, but are not limited to: (i) the development of conceptual design, initial design, construction drawing design and optimization, and submission of such designs to the JV Company for examination and confirmation; and (ii) the construction of the assembly and wafer fabrication facilities and related procurement services, including the selection and engagement of subcontractors, in accordance with a construction schedule agreed upon by the parties. The total price payable under the EPC Contract is Chinese Renminbi (RMB) 540.0 million, or approximately \$78.0 million based on the currency exchange rate between RMB and U.S. Dollars on the Effective Date, which consists of \$2.8 million (RMB 19.5 million) of design fees (“Design Fees”) and \$75.2 million (RMB 520.5 million) of construction and procurement fees (including compliance with safety and aesthetic requirements) (“Construction Fees”). The payment is subject to volatility as a result of exposure to fluctuations in RMB foreign exchange rates. The Design Fees and Construction Fees are paid by the JV Company pursuant to a payment schedule based on the progress of the construction and the achievements of specified milestones. As of December 31, 2017, the JV Company paid approximately \$37.0 million (RMB 243.8 million), and expects to pay the remaining of \$44.9 million (RMB 296.2 million) in calendar year 2018.

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The changes in total stockholders' equity and noncontrolling interest were as follows (in thousands):

	Total AOS Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance, June 30, 2017	\$ 270,770	\$ 27,779	\$ 298,549
Exercise of common stock options and release of RSUs	827	—	827
Reissuance of treasury stock upon exercise of common stock options and release of RSUs	(61)	—	(61)
Withholding tax on restricted stock units	(249)	—	(249)
Issuance of shares under ESPP	1,439	—	1,439
Repurchase of common shares under shares repurchase program	(6,022)	—	(6,022)
Stock-based compensation expense	4,546	—	4,546
Net income (loss)	11,591	(3,130)	8,461
Deferred tax asset related to ASU 2016-16 adoption	(5,480)	—	(5,480)
Cumulative translation adjustment	2,149	1,899	4,048
Contributions from noncontrolling interest	—	86,994	86,994
Balance, December 31, 2017	\$ 279,510	\$ 113,542	\$ 393,052

7. Shareholders' Equity and Share-based Compensation

Share Repurchase

In September 2017, the Board of Directors terminated the repurchase program that was previously approved in 2015 and approved a new repurchase program (the "Repurchase Program"), which allows the Company to repurchase its common shares from the open market pursuant to a pre-established Rule 10b5-1 trading plan or through privately negotiated transactions up to an aggregate of \$30.0 million. The amount and timing of any repurchases under the Repurchase Program depend on a number of factors, including but not limited to, the trading price, volume and availability of the Company's common shares. Shares repurchased under this program are accounted for as treasury shares and the total cost of shares repurchased is recorded as a reduction of shareholders' equity.

During the six months ended December 31, 2017, the Company repurchased an aggregate of 346,621 shares from the open market, for a total cost of \$6.0 million, at an average price of \$17.34 per share. Since the inception of the prior repurchase program in 2010, the Company repurchased an aggregate of 6,069,714 shares from the open market including shares purchased in a dutch tender offer for a total cost of \$56.8 million, at an average price of \$9.35 per share, excluding fees and related expenses. No repurchased shares have been retired. Of the 6,069,714 repurchased shares, 122,154 shares with a weighted average repurchase price of \$10.70 per share, were reissued at an average price of \$6.06 per share pursuant to option exercises and vested restricted share units. As of December 31, 2017, approximately \$24.0 million remained available under the Repurchase Program.

Stock Options

The Company did not grant any stock options during the six months ended December 31, 2017. The number of options expected to vest is the result of applying the pre-vesting forfeiture rate assumption to total outstanding options.

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The following table summarizes the Company's stock option activities for the six months ended December 31, 2017:

	Number of	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
	Shares	Per Share		
Outstanding at June 30, 2017	1,053,367	\$ 10.98	4.43	\$6,212,660
Granted	—	\$ —		
Exercised	(64,521)	\$ 11.85		\$344,085
Canceled or forfeited	—	\$ —		
Outstanding at December 31, 2017	988,846	\$ 10.92	4.17	\$5,646,519
Options vested and expected to vest	988,473	\$ 10.92	4.16	\$5,643,340
Exercisable at December 31, 2017	953,428	\$ 11.04	4.09	\$5,337,845

Restricted Stock Units ("RSU")

The following table summarizes the Company's RSU activities for the six months ended December 31, 2017:

	Number of Restricted Stock Units	Weighted Average Grant Date Fair Value Per Share	Weighted Average Remaining Recognition Period (Years)	Aggregate Intrinsic Value
Nonvested at June 30, 2017	1,144,865	\$ 14.11	1.76	\$19,084,900
Granted	93,907	\$ 17.25		
Vested	(64,312)	\$ 14.20		
Forfeited	(17,900)	\$ 14.03		
Nonvested at December 31, 2017	1,156,560	\$ 14.36	1.36	\$18,921,322
RSUs vested and expected to vest	1,050,575		1.28	\$17,187,413

The fair value of RSU is based on the market price of the Company's share on the date of grant.

In March 2017, the Company granted 170,000 performance-based RSUs ("PRSUs") to its key personnel. The number shares to be issued under the PRSU will be determined based on the level of attainment of predetermined financial goals. The PRSU will vest in four equal annual installments from March 15, 2018 if certain predetermined financial goals were met. The Company recorded approximately \$0.5 million and \$0.7 million of expenses for these PRSUs during the three and six months ended December 31, 2017.

The Board previously approved the incentive cash bonus plan (the "Plan") for the calendar year commencing January 1, 2017 pursuant to which each executive officer of the Company who continues in service through the end of the calendar year will be eligible to receive an incentive award, payable solely in cash, based on the level of attainment of certain specified Company performance goals. On November 15, 2017, the Board approved an amendment to the Plan that permits the Company to pay up to 50% of such incentive awards in common shares of the Company. The Company recorded \$1.5 million of such RSUs expenses in the three months ended December 31, 2017. The expenses are reported in the accrued liabilities line in the condensed consolidated balance sheet as the total amount of bonus is to be settled in variable number of shares. Such non-cash compensation expenses are recorded as part of stock-based compensation expense in the condensed consolidated statements of operations.

Employee Share Purchase Plan ("ESPP")

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The assumptions used to estimate the fair values of common shares issued under the ESPP were as follows:

	Six Months Ended December 31, 2017
Volatility rate	45.32%
Risk-free interest rate	1.4% - 1.7%
Expected term	1.3 years
Dividend yield	0%

Share-based Compensation Expense

The total share-based compensation expense related to stock options, RSUs and ESPP described above, recognized in the condensed consolidated statements of operations for the periods presented was as follows:

	Three Months Ended December 31, 2017 2016		Six Months Ended December 31, 2017 2016	
	(in thousands)		(in thousands)	
Cost of goods sold	\$415	\$205	\$731	\$400
Research and development	617	383	979	743
Selling, general and administrative	2,977	966	4,307	1,727
	\$4,009	\$1,554	\$6,017	\$2,870

As of December 31, 2017, total unrecognized compensation cost under the Company's equity plans was \$9.7 million, which is expected to be recognized over a weighted-average period of 1.2 years.

8. Income Taxes

For the three months ended December 31, 2017, the Company recognized income tax benefit of approximately \$2.1 million, which included a discrete tax benefit of \$2.7 million related to re-measuring the Company's U.S. deferred tax assets and liabilities following enactment of the 2017 U.S. Tax Cut and Jobs Act in December 2017. For the three months ended December 31, 2016, the Company recognized income tax expense of approximately \$1.1 million. Excluding the discrete income tax items, the estimated effective tax rate for the three months ended December 31, 2017 was 31.4% compared to 39.1% for the three months ended December 31, 2016. The changes in the effective tax rate and tax expense between the periods resulted primarily from the reduction in the U.S. corporate tax rate following the enactment of the 2017 U.S. Tax Cut and Jobs Act along with changes in the mix of earnings in various geographic jurisdictions between the current year and the same period of last year.

For the six months ended December 31, 2017, the Company recognized an income tax benefit of approximately \$0.8 million, which included a discrete tax benefit of \$2.7 million related to remeasuring the Company's U.S. deferred tax assets and liabilities following enactment of the 2017 U.S. Tax Cut and Jobs Act in December 2017. For the six months ended December 31, 2016, the Company recognized income tax expense of approximately \$2.3 million. Excluding the discrete income tax items, the estimated effective tax rate for the six months ended December 31, 2017 was 24.0% compared to 35.6% for the six months ended December 31, 2016. The changes in the effective tax rate and tax expense between the periods resulted primarily from the reduction in the U.S. corporate tax rate following the enactment of the 2017 U.S. Tax Cut and Jobs Act along with changes in the mix of earnings in various geographic jurisdictions between the current year and the same period of last year.

During the quarter ended September 30, 2016, the Company contributed certain packaging equipment as required by the JV Agreement by transferring the legal titles of such equipment to the JV Company. As a result of the transfer, the Company reduced its deferred tax assets by \$6.6 million and recorded a \$6.6 million in prepaid tax asset, which was amortized to tax expense over the useful life of the assets. As of June 30, 2017, the prepaid tax asset was amortized down to \$5.5 million, of which \$1.1 million and \$4.4 million were included in prepaid and other current assets and

other long-term assets on the Company's balance sheet, respectively. On July 1, 2017, the Company adopted ASU 2016-16, Intra-Entity Transfers of Assets other than Inventory, which resulted in a de-recognition of a prepaid tax asset of \$5.5 million related to the prior period intra-

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

entity asset transfer with the JV Company, with an offsetting reduction to retained earnings. Because the JV Company has a full valuation allowance, there was no change to the Company's net deferred tax assets. The Company files its income tax returns in the United States and in various foreign jurisdictions. The tax years 2002 to 2017 remain open to examination by U.S. federal and state tax authorities. The tax years 2010 to 2017 remain open to examination by foreign tax authorities.

The Company's income tax returns are subject to examinations by the Internal Revenue Service and other tax authorities in various jurisdictions. In accordance with the guidance on the accounting for uncertainty in income taxes, the Company regularly assesses the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of its provision for income taxes. These assessments can require considerable estimates and judgments. As of December 31, 2017, the gross amount of unrecognized tax benefits was approximately \$6.8 million, of which \$4.1 million, if recognized, would reduce the effective income tax rate in future periods. If the Company's estimate of income tax liabilities proves to be less than the ultimate assessment, then a further charge to expense would be required. If events occur and the payment of these amounts ultimately proves to be unnecessary, the reversal of the liabilities would result in tax benefits being recognized in the period when the Company determines the liabilities are no longer necessary. The Company does not anticipate any material changes to its uncertain tax positions during the next twelve months.

On July 27, 2015, in *Altera Corp. v. Commissioner*, the U.S. Tax Court issued an opinion related to the treatment of share-based compensation expense in an intercompany cost-sharing arrangement. A final decision has yet to be issued by the Tax Court due to other outstanding issues related to the case. At this time, the U.S. Department of the Treasury has not withdrawn the requirement to include share-based compensation from its regulations. Due to the uncertainty surrounding the status of the current regulations, questions related to the scope of potential benefits, and the risk of the Tax Court's decision being overturned upon appeal, the Company has not recorded any benefit as of December 31, 2017. The Company will continue to monitor ongoing developments and potential impacts to its financial statements.

9. Segment and Geographic Information

The Company is organized as, and operates in, one operating segment: the design, development and supply of power semiconductor products for computing, consumer electronics, communication and industrial applications. The chief operating decision-maker is the Chief Executive Officer. The financial information presented to the Company's Chief Executive Officer is on a consolidated basis, accompanied by information about revenue by customer and geographic region, for purposes of evaluating financial performance and allocating resources. The Company has one business segment, and there are no segment managers who are held accountable for operations, operating results and plans for products or components below the consolidated unit level. Accordingly, the Company reports as a single operating segment.

The Company sells its products primarily to distributors in the Asia Pacific region, who in turn sell these products to end customers. Because the Company's distributors sell their products to end customers which may have a global presence, revenue by geographical location is not necessarily representative of the geographical distribution of sales to end user markets.

The revenue by geographical location in the following tables is based on the country or region to which the products were shipped to:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2017	2016	2017	2016
	(in thousands)		(in thousands)	
Hong Kong	\$82,440	\$78,253	\$167,670	\$161,088
China	19,153	14,383	36,273	26,825

Edgar Filing: ALPHA & OMEGA SEMICONDUCTOR Ltd - Form 10-Q

South Korea	301	393	588	759
United States	1,314	798	2,692	1,692
Other Countries	688	860	1,531	1,685
	\$103,896	\$94,687	\$208,754	\$192,049

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The following is a summary of revenue by product type:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2017	2016	2017	2016
	(in thousands)		(in thousands)	
Power discrete	\$85,094	\$69,822	\$168,772	\$141,250
Power IC	15,758	21,859	33,855	44,857
Packaging and testing services	3,044	3,006	6,127	5,942
	\$103,896	\$94,687	\$208,754	\$192,049

Long-lived assets, net consisting of property, plant and equipment and land use rights, by geographical area are as follows:

	December 31,	
	2017	2017
	(in thousands)	
China	\$123,885	\$85,691
United States	68,701	61,787
Other Countries	667	713
	\$193,253	\$148,191

ALPHA AND OMEGA SEMICONDUCTOR LIMITED
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

10. Commitments and Contingencies

Purchase Commitments

As of December 31, 2017 and June 30, 2017, the Company had approximately \$34.7 million and \$25.7 million, respectively, of outstanding purchase commitments primarily for purchases of semiconductor raw materials, wafers, spare parts and packaging and testing services, and approximately \$128.7 million and \$69.2 million, respectively, of capital commitments for the purchase of property and equipment and EPC construction.

Other Commitments

See Note 4, Note 5 and Note 6 of the Notes to the Condensed Consolidated Financial Statements contained in this Quarterly Report on Form 10-Q for descriptions of commitments including STMicro license, debt and Joint Venture.

Contingencies and Indemnities

The Company is currently not a party to any pending material legal proceedings. The Company has in the past, and may from time to time in the future, become involved in legal proceedings arising from the normal course of business activities. The semiconductor industry is characterized by frequent claims and litigation, including claims regarding patent and other intellectual property rights as well as improper hiring practices. Irrespective of the validity of such claims, the Company could incur significant costs in the defense of such claims and suffer adverse effects on its operations.

The Company is a party to a variety of agreements that it has contracted with various third parties. Pursuant to these agreements, the Company may be obligated to indemnify another party to such an agreement with respect to certain matters. Typically, these obligations arise in the context of contracts entered into by the Company, under which the Company customarily agrees to hold the other party harmless against losses arising from a breach of representations and covenants related to such matters as title to assets sold, certain intellectual property rights, specified environmental matters and certain income taxes. In these circumstances, payment by the Company is customarily conditioned on the other party making a claim pursuant to the procedures specified in the particular contract, which procedures typically allow the Company to challenge the other party's claim. Further, the Company's obligations under these agreements may be limited in time and/or amount, and in some instances, the Company may have recourse against third parties for certain payments made by it under these agreements. The Company has not historically paid or recorded any material indemnifications and no accrual has been made at December 31, 2017 and June 30, 2017.

The Company has agreed to indemnify its directors and certain employees as permitted by law and pursuant to its Bye-laws, and has entered into indemnification agreements with its directors and executive officers. The Company has not recorded a liability associated with these indemnification arrangements, as it historically has not incurred any material costs associated with such indemnification obligations. Costs associated with such indemnification obligations may be mitigated by insurance coverage that the Company maintains. However, such insurance may not cover any, or may cover only a portion of, the amounts the Company may be required to pay. In addition, the Company may not be able to maintain such insurance coverage in the future.

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

Except for the historical information contained herein, the matters addressed in this Item 2 constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Such forward-looking statements are subject to a variety of risks and uncertainties, including those discussed below under the heading “Risk Factors” and elsewhere in this Quarterly Report on Form 10-Q, that could cause actual results to differ materially from those anticipated by the Company’s management. The Private Securities Litigation Reform Act of 1995 (the “Act”) provides certain “safe harbor” provisions for forward-looking statements. All forward-looking statements made in this Quarterly Report on Form 10-Q are made pursuant to the Act. The Company undertakes no obligation to publicly release the results of any revisions to its forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unexpected events. Unless the context otherwise requires, the words “AOS,” the “Company,” “we,” “us” and “our” refer to Alpha and Omega Semiconductor Limited and its subsidiaries.

This management’s discussion should be read in conjunction with the management’s discussion included in the Company’s Annual Report on Form 10-K for the fiscal year ended June 30, 2017, filed with the Securities and Exchange Commission on September 5, 2017.

Overview

We are a designer, developer and global supplier of a broad portfolio of power semiconductors. Our portfolio of power semiconductors includes approximately 1,700 products, and has grown with the introduction of 80 new products during the fiscal year ended June 30, 2017, and over 90 new products during each of the fiscal years ended June 30, 2016 and 2015. During the six months ended December 31, 2017, we introduced an additional 93 new products. Our teams of scientists and engineers have developed extensive intellectual properties and technical knowledge that encompass major aspects of power semiconductors, which we believe enables us to introduce and develop innovative products to address the increasingly complex power requirements of advanced electronics. We have an extensive patent portfolio that consists of 703 patents and 116 patent applications in the United States as of December 31, 2017. We also had a total of 635 foreign patents, which substantially were based on our research and development efforts as of December 31, 2017. We differentiate ourselves by integrating our expertise in technology, design and advanced packaging to optimize product performance and cost. Our portfolio of products targets high-volume applications, including personal computers, flat panel TVs, LED lighting, smart phones, battery packs, consumer and industrial motor controls and power supplies for TVs, computers, servers and telecommunications equipment.

Our business model leverages global resources, including research and development and manufacturing in the United States and Asia. Our sales and technical support teams are localized in several growing markets. We operate a 200mm wafer fabrication facility in Hillsboro, Oregon, or the Oregon fab, which is critical for us to accelerate proprietary technology development and new product introduction as well as to improve our financial performance in the long run. To meet the market demand for more mature high volume products, we also utilize the wafer manufacturing capacity of selected third party foundries. For assembly and test, we primarily rely upon our in-house facilities in China. In addition, we utilize subcontracting partners for industry standard packages. We believe our in-house packaging and testing capability provides us with a competitive advantage in proprietary packaging technology, product quality, cost and sales cycle time.

On March 29, 2016, we entered into a joint venture contract (the “JV Agreement”) with two investment funds owned by the Municipality of Chongqing (the “Chongqing Funds”), pursuant to which we and the Chongqing Funds formed a joint venture, (the “JV Company”), for the purpose of constructing a power semiconductor packaging, testing and wafer fabrication facility in the Liangjiang New Area of Chongqing, China (the “JV Transaction”). The total initial capitalization of the JV Company is \$330.0 million (the “Initial Capitalization”), which will be completed in stages. As of December 31, 2017, the Chongqing Funds contributed a total of \$120.0 million of initial capital in cash and we contributed \$10.0 million in cash and certain intangible assets, as well as certain packaging equipment as required by the JV Agreement by transferring the legal titles of such equipment to the JV Company. We own 51%, and the

Chongqing Funds own 49%, of the equity interest in the JV Company. If both parties agree that the termination of the JV Company is the best interest of each party or the JV Company is bankrupt or insolvent where either party may terminate early, after paying the debts of the JV Company, the remaining assets of the JV Company shall be paid to the Chongqing Funds to cover the principal of its total paid-in contributions plus interest at 10% simple annual rate prior to distributing the balance of the JV Company's assets to us. We expect the JV Company to commence initial production in mid-calendar year 2018. During the three and six months ended December 31, 2017, we recorded \$1.7 million and \$3.1 million in net loss attributable to noncontrolling interest, representing 49% of the net loss incurred in the JV Company, which was attributable to operating expenses and depreciation expenses offset by equipment lease income and interest income. In the long-term, the JV

Company plans to construct and operate a 12-inch wafer fabrication facility for the production of power semiconductors. We expect the joint venture to deliver significant cost savings, and enhance our market positions in China, and drive meaningful improvements in working capital and capital expenditures.

As part of the JV Transaction, the JV Company entered into an Engineering, Procurement and Construction Contract (the “EPC Contract”) with The IT Electronics Eleventh Design & Research Institute Scientific and Technological Engineering Corporation Limited (the “Contractor”), effective as of January 10, 2017 (the “Effective Date”), pursuant to which the Contractor was engaged to construct the manufacturing facility contemplated under the JV Agreement. Under the EPC Contract, the Contractor’s obligations include, but are not limited to: (i) the development of conceptual design, initial design, construction drawing design and optimization, and submission of such designs to the JV Company for examination and confirmation; and (ii) the construction of the assembly and wafer fabrication facilities and related procurement services, including the selection and engagement of subcontractors, in accordance with a construction schedule agreed upon by the parties. The total price payable under the EPC Contract is Chinese Renminbi (RMB) 540.0 million, or approximately \$78.0 million, based on the currency exchange rate between RMB and U.S. Dollars on the Effective Date, which consists of \$2.8 million (RMB 19.5 million) of design fees (“Design Fees”) and \$75.2 million (RMB 520.5 million) of construction and procurement fees (including compliance with safety and aesthetic requirements) (“Construction Fees”). The payment is subject to volatility as a result of exposure to fluctuations in RMB foreign exchange rates. The Design Fees and Construction Fees are paid by the JV Company pursuant to a payment schedule based on the progress of the construction and the achievements of specified milestones. As of December 31, 2017, the JV Company paid approximately \$37.0 million (RMB 243.8 million), and expects to pay the remaining of \$44.9 million (RMB 296.2 million) in calendar year 2018. The payment is subject to volatility as a result of exposure to fluctuations in RMB foreign exchange rates.

On September 5, 2017, we entered into a license agreement with STMicroelectronics International N.V. (“STMicro”), pursuant to which STMicro granted us a world-wide, royalty-free and fully-paid license to use its technologies to develop, market and distribute certain digital multi-phase controller products, which have been previously offered by STMicro. Under the license agreement, we agreed to pay a total price in cash of \$17.0 million based on the payment schedule as set forth in the agreement of approximately \$10.1 million, \$6.7 million and \$0.2 million in calendar year 2017, 2018 and 2019, respectively. As of December 31, 2017, we recorded \$13.8 million of such intangible assets, of which \$9.8 million in cash was paid to STMicro.

During the second quarter of fiscal year of 2018, we introduced AONR21357, which uses the improved P-Channel MOSFET process to achieve low power loss and reliable startup. This new P-Channel MOSFET is ideal for load switch applications in Notebook Adapter-In/ Battery In sockets. We also released AONS66916 production utilizing the latest Alpha Shield Gate Technology Generation 2 (AlphaSGT2), which attributes enable higher efficiency and robustness to critical high density telecom and server applications. During the first quarter of fiscal year of 2018, we released OTF190A60L, the first product in the new MOS5TMHV MOSFET platform. This device provides high-efficiency performance in an easy-to-use solution optimized for server power supplies, high-end computers, charging stations and other high-performance applications. We also introduced AOZ5131QI, the latest generation of power modules. The new device enables high power-density voltage regulator solutions ideal for CPU and GPU power regulation in notebook PCs, servers, and graphic cards. In addition, we expanded our recently launched fast turn-off switched 650V H-series IGBT family with a 1200V rating. The new AOK40B120H1 has been developed to address needs of industrial welding and high-frequency converters with 3-phase ac or high voltage dc input. The device offers excellent performance in high switching frequency applications, which can be a perfect fit for high voltage industrial welding machine.

Factors affecting our performance

Our performance is affected by several key factors, including the following:

Costs of JV Company and digital power business: We expect our operating expenses to increase in the short term due to the additional costs associated with ramping up pre-production activities of the JV Company, as well as the initial startup work to develop and establish our new digital power business. As the JV Company is expected to complete on schedule the construction of its assembly and testing facilities during the quarter ending March 31, 2018, the pre-production costs will increase significantly, including costs relating to the installation of equipment; performance of qualification process; increased demand for electrical power and utility; increased headcounts as a result of hiring of additional personnel, staff and operators; and establishment of administrative and management functions and systems. In addition, a portion of these pre-production costs cannot be capitalized under GAAP accounting. Furthermore, following the execution of the STMicro license agreement in September 2017, we are accelerating the development of our digital power business to design and distribute a full suite of advanced low-voltage power IC products. We expect to incur additional costs, including costs relating to recruiting and hiring of qualified engineers and technical staff and other research and development and management activities as we start to build this n

ew business. In the short term, we will not be able to generate sufficient amount of revenue from either of these two business initiatives to offset the increase costs, which will likely negatively impact our results of operations.

Manufacturing costs: Our gross margin may be affected by our manufacturing costs, including utilization of our manufacturing facilities, pricing of wafers from third party foundries and semiconductor raw materials, which may fluctuate from time to time largely due to the market demand and supply. Capacity utilization affects our gross margin because we have certain fixed costs associated with our packaging and testing facilities and our Oregon fab. If we are unable to utilize our manufacturing facilities at a desired level, our gross margin may be adversely affected. In addition, we expect that in the long term our joint venture agreement with the Chongqing Funds will reduce our costs of manufacturing. However, our manufacturing costs may increase in the short term prior to the commencement of operation of the JV Company, because we may be required to incur additional costs to acquire packaging and testing capacity in order make up for the reduced capacity during the period in which we transfer our equipment from Shanghai to Chongqing. Furthermore, from time to time, we may experience wafer capacity constraints, particularly at third party foundries, that may prevent us from fully meeting the demand of our customers. While we can mitigate such constraints by increasing capacity at our own fab, we may not be able to do so quickly or at sufficient level, which could adversely affect our financial conditions and results of operations.

Erosion of average selling price: Erosion of average selling prices of established products is typical in our industry. Consistent with this historical trend, we expect our average selling prices of existing products to decline in the future. However, in the normal course of business, we seek to offset the effect of declining average selling price by introducing new and higher value products, expanding existing products for new applications and new customers and reducing the manufacturing cost of existing products.

The global, regional economic and PC market conditions: Because our products primarily serve consumer electronic applications, a deterioration of the global and regional economic conditions could materially affect our revenue and results of operations. In particular, because a significant amount of our revenue is derived from sales of products in the personal computing ("PC") markets, such as notebooks, motherboards and notebook battery packs, a significant decline or downturn in the PC market can have a material adverse effect on our revenue and results of operations. Our revenue from the PC market accounted for approximately 42.6% and 38.4% of our total revenue for the three months ended December 31, 2017 and 2016, respectively, and 40.7% and 37.2% of our total revenue for the six months ended December 31, 2017 and 2016, respectively. In the past, we have experienced a significant global decline in the PC markets due to continued growth of demand in tablets and smart phones, worldwide economic conditions and the industry inventory correction which had and may continue to have a material negative impact on the demand for our products, revenue, factory utilization, gross margin, our ability to resell excess inventory, and other performance measures.

We have executed and continue to execute strategies to diversify our product portfolio, penetrate into other market segments, including the consumer, communications and industrial markets, and improve gross margins and profit by implementing cost control measures. While making progress in reducing our reliance on the computing market, we continue to support our computing business and capitalize on the opportunities in this market with a more focused and competitive PC product strategy. However, if the rate of decline in the PC markets is faster than we expect, or if we cannot successfully diversify or introduce new products to keep pace with the declining PC markets, we may not be able to alleviate its negative impact on our results of operations.

Product introductions and customers' product requirements: Our success depends on our ability to introduce products on a timely basis that meet or are compatible with our customers' specifications and performance requirements. Both factors, timeliness of product introductions and conformance to customers' requirements, are equally important in securing design wins with our customers. As we accelerate the development of new technology platforms, we expect

to increase the pace at which we introduce new products and obtain design wins. Our failure to introduce new products on a timely basis that meet customers' specifications and performance requirements, particularly those products with major OEM customers, and our inability to continue to expand our serviceable markets, could adversely affect our financial performance, including loss of market share. We believe that the JV Transaction will increase and diversify our customer base, particularly in China, in the long term. We expect the JV Company to commence initial production in mid-calendar year 2018. However, there is no guarantee that the JV Company will commence timely or at all, and we may experience delays in the construction of the facility. Even if we are able to commence JV operation, we may not be successful in acquiring a sufficient number of new customers to offset the additional costs due to various factors, including but are not limited to, competition from other semiconductor companies in the region, our lack of history and prior relationships with customers as a new entrant, difficulties in executing our joint venture strategies, lack of control over our operations and the general economic conditions in Chongqing and China. Distributor ordering patterns, customer demand and seasonality: Our distributors place purchase orders with us based on their forecasts of end customer demand, and this demand may vary significantly depending on the sales outlook and market and

economic conditions of end customers. Because these forecasts may not be accurate, channel inventory held at our distributors may fluctuate significantly, which in turn may prompt distributors to make significant adjustments to their purchase orders placed with us. As a result, our revenue and operating results may fluctuate significantly from quarter to quarter. In addition, because our products are used in consumer electronics products, our revenue is subject to seasonality. Our sales seasonality is affected by numerous factors, including global and regional economic conditions as well as the PC market conditions, revenue generated from new products, changes in distributor ordering patterns in response to channel inventory adjustments and end customer demand for our products and fluctuations in consumer purchase patterns prior to major holiday seasons. In recent periods, broad fluctuations in the semiconductor markets and the global and regional economic conditions, in particular the decline of the PC market conditions, have had a more significant impact on our results of operations than seasonality. Furthermore, our revenue may be impacted by the level of demand from our major customers due to factors outside of our control. If these major customers experience significant decline in the demand of their products, encounter difficulties or defects in their products, or otherwise fail to execute their sales and marketing strategies successfully, it may adversely affect our revenue and results of operations.

Principal line items of statements of operations

The following describes the principal line items set forth in our condensed consolidated statements of operations:

Revenue

We generate revenue primarily from the sale of power semiconductors, consisting of power discretes and power ICs. Because our products typically have three to five year life cycles, the rate of new product introduction is an important driver of revenue growth over time. We believe that expanding the breadth of our product portfolio is important to our business prospects, because it provides us with an opportunity to increase our total bill-of-materials within an electronic system and to address the power requirements of additional electronic systems. In addition, a small percentage of our total revenue is generated by providing packaging and testing services to third-parties through one of our subsidiaries.

Our product revenue includes the effect of the estimated stock rotation returns and price adjustments that we expect to provide to our distributors. Stock rotation returns are governed by contract and are limited to a specified percentage of the monetary value of products purchased by the distributor during a specified period. At our discretion or upon our direct negotiations with the original design manufacturers ("ODMs") or original equipment manufacturers ("OEMs"), we may elect to grant special pricing that is below the prices at which we sold our products to the distributors. In these situations, we will grant price adjustments to the distributors reflecting such special pricing. We estimate the price adjustments for inventory at the distributors based on factors such as distributor inventory levels, pre-approved future distributor selling prices, distributor margins and demand for our products.

Cost of goods sold

Our cost of goods sold primarily consists of costs associated with semiconductor wafers, packaging and testing, personnel, including share-based compensation expense, overhead attributable to manufacturing, operations and procurement, and cost associated with yield improvements, capacity utilization, warranty and inventory reserves. As the volume of sales increases, we expect cost of goods sold to increase. We implemented a process to improve our factory capacity utilization rates by transferring more wafer production to our Oregon fab and reducing our reliance on outside foundries. While our utilization rates cannot be immune to market conditions, our goal is to make such rates less vulnerable to market fluctuations. We believe our market diversification strategy and product growth will drive higher volumes of manufacturing which will improve our factory utilization rates and gross margin in the long run.

Operating expenses

Our operating expenses consist of research and development, selling, general and administrative expenses. We expect our operating expenses as a percentage of revenue to fluctuate from period to period as we continue to exercise cost control measures in response to the declining PC market as well as align our operating expenses to the revenue level.

Research and development expenses. Our research and development expenses consist primarily of salaries, bonuses, benefits, share-based compensation expense, expenses associated with new product prototypes, travel expenses, fees for engineering services provided by outside contractors and consultants, amortization of software and design tools, depreciation of equipment and overhead costs. We continue to invest in developing new technologies and products utilizing our own fabrication and packaging facilities as it is critical to our long-term success. We also evaluate appropriate investment levels and stay focused on new product introductions to improve our competitiveness. We expect that our research and development expenses will fluctuate from time to time.

Selling, general and administrative expenses. Our selling, general and administrative expenses consist primarily of salaries, bonuses, benefits, share-based compensation expense, product promotion costs, occupancy costs, travel expenses, expenses related to sales and marketing activities, amortization of software, depreciation of equipment, maintenance costs and other expenses for general and administrative functions as well as costs for outside professional services, including legal, audit and accounting services. We expect our selling, general and administrative expenses to fluctuate in the near future as we continue to exercise cost control measures in response to the declining PC market.

Income tax expense

We are subject to income taxes in various jurisdictions. Significant judgment and estimates are required in determining our worldwide income tax expense. The calculation of tax liabilities involves dealing with uncertainties in the application of complex tax regulations of different jurisdictions globally. We establish accruals for potential liabilities and contingencies based on a more likely than not threshold to the recognition and de-recognition of uncertain tax positions. If the recognition threshold is met, the applicable accounting guidance permits us to recognize a tax benefit measured at the largest amount of tax benefit that is more likely than not to be realized upon settlement with a taxing authority. If the actual tax outcome of such exposures is different from the amounts that were initially recorded, the differences will impact the income tax and deferred tax provisions in the period in which such determination is made. Changes in the location of taxable income (loss) could result in significant changes in our income tax expense.

We record a valuation allowance against deferred tax assets if it is more likely than not that a portion of the deferred tax assets will not be realized, based on historical profitability and our estimate of future taxable income in a particular jurisdiction. Our judgments regarding future taxable income may change due to changes in market conditions, changes in tax laws, tax planning strategies or other factors. If our assumptions and consequently our estimates change in the future, the deferred tax assets may increase or decrease, resulting in corresponding changes in income tax expense. Our effective tax rate is highly dependent upon the geographic distribution of our worldwide profits or losses, the tax laws and regulations in each geographical region where we have operations, the availability of tax credits and carry-forwards and the effectiveness of our tax planning strategies.

During the quarter ended September 30, 2016, we contributed certain packaging equipment as required by the JV Agreement by transferring the legal title of such equipment to the JV Company. As a result of the transfer, we reduced our deferred tax assets by \$6.6 million and recorded a \$6.6 million in prepaid tax asset, which was amortized to tax expense over the useful life of the assets. As of June 30, 2017, the prepaid tax asset was amortized down to \$5.5 million, of which \$1.1 million and \$4.4 million were included in prepaid and other current assets and other long-term assets on our balance sheet, respectively. On July 1, 2017, we adopted ASU 2016-16, Intra-Entity Transfers of Assets other than Inventory, which resulted in a de-recognition of a prepaid tax asset of \$5.5 million related to the prior period intra-entity asset transfer with the JV Company, with an offsetting reduction to retained earnings. Because the JV Company has a full valuation allowance, there was no change to our net deferred tax assets.

U.S. Tax Cuts and Jobs Act, Enacted December 22, 2017

On December 22, 2017, the United States enacted tax reform legislation through the Tax Cuts and Jobs Act ("the Tax Act"), which significantly changes the existing U.S. tax laws, including, but not limited to, (1) a reduction in the corporate tax rate from 35% to 21%, (2) a move from a worldwide tax system to a territorial system, (3) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized, (4) bonus depreciation that will allow for full expensing of qualified property, (5) creating a new limitation on deductible interest expense and (6) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

The SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118"), which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under Accounting Standards Codification Topic

740 ("ASC 740"). In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax law that were in effect immediately before the enactment of the Tax Act.

In connection with our initial analysis of the impact of the Tax Act, we reported a second quarter of fiscal year 2018 discrete tax benefit of \$2.7 million related to the re-measurement of certain deferred tax assets and liabilities. In addition, we are using a

28% U.S. federal tax rate to measure our U.S. federal income tax expense for fiscal year 2018, down from the 34% U.S. federal income tax rate used in first quarter of fiscal year 2018.

Our accounting for the impact of the Tax Act is complete for provisions of the Act that could impact our fiscal year 2018 financial statements. We are still analyzing the provisions of the Act that may impact future periods. Our management expects the Act to favorably impact our net income, diluted earnings per share, and cash flows in future periods, due primarily to the reduction in the federal corporate tax rate from 35% to 21% effective for periods beginning January 1, 2018. Our management currently estimates that our blended consolidated effective income tax rate ("tax rate") for full-year fiscal 2018 will approximate 27% before discrete items, compared with nearly 33% for the prior year.

Results of Operations

The following tables set forth statements of operations, also expressed as a percentage of revenue, for the three and six months ended December 31, 2017 and 2016. Our historical results of operations are not necessarily indicative of the results for any future period.

	Three Months Ended December 31,				Six Months Ended December 31,			
	2017	2016	2017	2016	2017	2016	2017	2016
	(in thousands)		(% of revenue)		(in thousands)		(% of revenue)	
Revenue	\$103,896	\$94,687	100.0 %	100.0 %	\$208,754	\$192,049	100.0 %	100.0 %
Cost of goods sold	75,814	72,593	73.0 %	76.7 %	153,142	148,011	73.4 %	77.1 %
Gross profit	28,082	22,094	27.0 %	23.3 %	55,612	44,038	26.6 %	22.9 %
Operating expenses								
Research and development	9,102	7,284	8.8 %	7.7 %	17,427	14,303	8.3 %	7.4 %
Selling, general and administrative	15,756	11,974	15.2 %	12.6 %	30,371	23,157	14.5 %	12.1 %
Total operating expenses	24,858	19,258	24.0 %	20.3 %	47,798	37,460	22.8 %	19.5 %
Operating income	3,224	2,836	3.0 %	3.0 %	7,814	6,578	3.8 %	3.4 %
Interest income and other loss, net	(160)	(70)	(0.2)%	(0.1)%	(120)	(119)	(0.1)%	(0.1)%
Interest expense	(14)	(24)	— %	— %	(31)	(50)	— %	— %
Net income before income taxes	3,050	2,742	2.8 %	2.9 %	7,663	6,409	3.7 %	3.3 %
Income tax expense (benefit)	(2,072)	1,085	(2.0)%	1.1 %	(798)	2,322	(0.4)%	1.2 %
Net income including noncontrolling interest	5,122	1,657	4.8 %	1.8 %	8,461	4,087	4.1 %	2.1 %
Net loss attributable to noncontrolling interest	(1,669)	(1,190)	(1.6)%	(1.3)%	(3,130)	(2,067)	(1.5)%	(1.1)%
Net income attributable to Alpha and Omega Semiconductor Limited	\$6,791	\$2,847	6.4 %	3.1 %	\$11,591	\$6,154	5.6 %	3.2 %

Share-based compensation expense was allocated as follow:

	Three Months Ended				Six Months Ended			
	December 31,				December 31,			
	2017	2016	2017	2016	2017	2016	2017	2016
	(in thousands)		(% of revenue)		(in thousands)		(% of revenue)	
Cost of goods sold	\$415	\$205	0.4 %	0.2 %	\$731	\$400	0.4 %	0.2 %
Research and development	617	383	0.6 %	0.4 %	979	743	0.5 %	0.4 %
Selling, general and administrative	2,977	966	2.9 %	1.0 %	4,307	1,727	2.1 %	0.9 %
Total	\$4,009	\$1,554	3.9 %	1.6 %	\$6,017	\$2,870	3.0 %	1.5 %

The Board previously approved the incentive cash bonus plan (the “Plan”) for the calendar year commencing January 1, 2017 pursuant to which each our executive officer who continues in service through the end of the calendar year will be eligible

to receive an incentive award, payable solely in cash, based on the level of attainment of certain specified our performance goals. On November 15, 2017, the Board approved an amendment to the Plan that permits the Company to pay up to 50% of such incentive awards in the common shares of the Company. We recorded \$1.5 million of such stock-based expenses in the three month ended December 31, 2017. The expenses are reported in the accrued liabilities line in the condensed consolidated balance sheet as the total amount of bonus is to be settled in variable number of common shares. Such non-cash compensation expenses are recorded as part of stock-based compensation expense in the condensed consolidated statements of operations.

Three And Six Months Ended December 31, 2017 and 2016

Revenue

The following is a summary of revenue by product type:

	Three Months Ended December 31,					Six Months Ended December 31,				
	2017	2016	Change			2017	2016	Change		
	(in thousands)		(in thousands)	(in percentage)		(in thousands)		(in thousands)	(in percentage)	
Power discrete	\$85,094	\$69,822	\$15,272	21.9	%	\$168,772	\$141,250	\$27,522	19.5	%
Power IC	15,758	21,859	(6,101)	(27.9)	%	33,855	44,857	(11,002)	(24.5)	%
Packaging and testing services	3,044	3,006	38	1.3	%	6,127	5,942	185	3.1	%
	\$103,896	\$94,687	\$9,209	9.7	%	\$208,754	\$192,049	\$16,705	8.7	%

Total revenue was \$103.9 million for the three months ended December 31, 2017, an increase of \$9.2 million, or 9.7%, as compared to \$94.7 million for the same quarter last year. The increase was primarily due to an increase of \$15.3 million in sales of power discrete products, partially offset by a decrease of \$6.1 million in sales of power IC products. The net increase in power discrete and power IC product sales was primarily due to a 4.3% increase in unit shipments, as well as a 5.6% increase in average selling price as compared to the same quarter last year due to a shift in product mix. The revenue of packaging and testing services revenue for the three months ended December 31, 2017 and 2016 remained flat.

Total revenue was \$208.8 million for the six months ended December 31, 2017, an increase of \$16.7 million, or 8.7%, as compared to \$192.0 million for the same period last year. The increase primarily due to \$27.5 million in sales of power discrete products, partially offset by \$11.0 million in power IC products. The net increase in product revenue, including power discrete and power IC product was primarily due to a 4.6% increase in unit shipments, as well as a 4.1% increase in average selling price as compared to the same period of last year mainly due to a shift in product mix. The increase in revenue of packaging and testing services for the six months ended December 31, 2017 as compared to the same period last year was primarily due to increased demand.

Cost of goods sold and gross profit

	Three Months Ended December 31,					Six Months Ended December 31,				
	2017	2016	Change			2017	2016	Change		
	(in thousands)		(in thousands)	(in percentage)		(in thousands)		(in thousands)	(in percentage)	
Cost of goods sold	\$75,814	\$72,593	\$3,221	4.4	%	\$153,142	\$148,011	\$5,131	3.5	%
Percentage of revenue	73.0	% 76.7	%			73.4	% 77.1	%		
Gross profit	\$28,082	\$22,094	\$5,988	27.1	%	\$55,612	\$44,038	\$11,574	26.3	%
Percentage of revenue	27.0	% 23.3	%			26.6	% 22.9	%		

Cost of goods sold was \$75.8 million for the three months ended December 31, 2017, an increase of \$3.2 million, or 4.4%, as compared to \$72.6 million for the same quarter last year. The increase was primarily due to increased unit

shipments. Gross margin increased by 3.7 percentage points to 27.0% for the three months ended December 31, 2017 as compared to 23.3% for the same quarter last year. The increase in gross margin was primarily due to increased average selling prices due to a shift in product mix and approximately \$1.0 million of specific reserve was released during the three months ended December 31, 2017.

Cost of goods sold was \$153.1 million for the six months ended December 31, 2017, an increase of \$5.1 million, or 3.5%, as compared to \$148.0 million for the same period last year, primarily due to increased unit shipments. Gross margin increased

by 3.7 percentage point to 26.6% for the six months ended December 31, 2017 as compared to 22.9% for the same period last year. The increase in gross margin was primarily due to a shift in product mix and approximately \$1.0 million of specific reserve was released during the current period.

Research and development expenses

	Three Months Ended December 31,				Six Months Ended December 31,			
	2017	2016	Change		2017	2016	Change	
	(in thousands)		(in thousands)	(in percentage)	(in thousands)		(in thousands)	(in percentage)
Research and development	\$9,102	\$7,284	\$1,818	25.0 %	\$17,427	\$14,303	\$3,124	21.8 %

Research and development expenses were \$9.1 million for the three months ended December 31, 2017, an increase of \$1.8 million, or 25.0%, as compared to \$7.3 million for the same quarter last year. The increase was primarily attributable to a \$0.4 million increase in employee compensation and benefit expense mainly due to increased headcount and higher bonus expenses, a \$0.9 million increase in product prototyping engineering expense as a result of increased engineering activities, a \$0.2 million increase in share-based compensation expense as a result of an increase of stock awards granted, and a \$0.1 million increase in recruiting fee in the current quarter.

Research and development expenses were \$17.4 million for the six months ended December 31, 2017, an increase of \$3.1 million, or 21.8%, as compared to \$14.3 million for the same period last year. The increase was primarily attributable to a \$1.2 million increase in employee compensation expenses mainly due to increased headcount and higher bonus expenses, a \$1.3 million increase in product prototyping engineering expense as a result of increased engineering activities, as well as a \$0.2 million increase in share-based compensation expense as a result of an increase of stock awards, and \$0.1 million in recruiting fee during the current period as compared to the same period last year.

Selling, general and administrative expenses

	Three Months Ended December 31,					Six Months Ended December 31,				
	2017	2016	Change			2017	2016	Change		
	(in thousands)		(in thousands)	(in percentage)		(in thousands)		(in thousands)	(in percentage)	
Selling, general and administrative	\$15,756	\$11,974	\$3,782	31.6	%	\$30,371	\$23,157	\$7,214	31.2	%

Selling, general and administrative expenses were \$15.8 million for the three months ended December 31, 2017, an increase of \$3.8 million, or 31.6%, as compared to \$12.0 million for the same quarter last year. The increase was primarily attributable to a \$1.5 million increase in employee compensation and benefit expenses mainly due to increased headcount and higher bonus expenses, a \$2.0 million increase in share-based compensation expense due to increased grant of equity awards, and a \$0.2 million increase in employee business expenses due to increased travel expenses during the current quarter.

Selling, general and administrative expenses were \$30.4 million for the six months ended December 31, 2017, an increase of \$7.2 million, or 31.2%, as compared to \$23.2 million for the same period last year. The increase was primarily attributable to a \$4.1 million increase in employee compensation and benefits expenses primarily due to increased headcount and higher bonus expenses, a \$2.6 million increase in share-based compensation expense due to increased grant of equity awards, and a \$0.3 million increase in employee business expenses due to increased travel expenses during the current period as compared to the same period last year.

Interest income and others, net

	Three Months Ended December 31,					Six Months Ended December 31,				
	2017	2016	Change			2017	2016	Change		
	(in thousands)	(in thousands)	(in thousands)	(in percentage)		(in thousands)	(in thousands)	(in thousands)	(in percentage)	
Interest income and other loss, net	\$(160)	\$(70)	\$(90)	128.6	%	\$(120)	\$(119)	\$(1)	0.8	%

Interest income and others, net was primarily related to interest earned from cash and cash equivalents, as well as foreign exchange gains (losses). The decrease in interest income and other loss, net during the three months ended December 31, 2017 as compared to the same period last year was primarily due to higher foreign exchange losses as a result of recent depreciation of USD against RMB, partially offset by higher interest income as a result of an increase in average cash balances.

Income tax expense

	Three Months Ended December 31,			Six Months Ended December 31,		
	2017	2016	Change	2017	2016	Change
	(in thousands)		(in thousands)percentage)	(in thousands)		(in thousands)percentage)
Income tax expense (benefit)	\$(2,072)	\$1,085	\$(3,157) (291.0)%	\$(798)	\$2,322	\$(3,120) (134.4)%

For the three months ended December 31, 2017, we recognized income tax benefit of approximately \$2.1 million, which included a discrete tax benefit of \$2.7 million related to re-measuring the Company's U.S. deferred tax assets and liabilities following enactment of the 2017 U.S. Tax Cut and Jobs Act in December 2017. For the three months ended December 31, 2016, we recognized income tax expense of \$1.1 million. Excluding the discrete income tax expense, the estimated effective tax rate for the three months ended December 31, 2017 was 31.4% compared to 39.1% for the three months ended December 31, 2016. The changes in the effective tax rate and tax expense between the periods resulted primarily from the reduction in the U.S. corporate tax rate following the enactment of the 2017 U.S. Tax Cut and Jobs Act along with changes in the mix of earnings in various geographic jurisdictions between the current year and the same period of last year.

For the six months ended December 31, 2017, we recognized an income tax benefit of approximately \$0.8 million, which included a discrete tax benefit of \$2.7 million largely related to re-measuring our U.S. deferred tax assets and liabilities following enactment of the 2017 U.S. Tax Cut and Jobs Act in December 2017. For the six months ended December 31, 2016, we recognized income tax expense of approximately \$2.3 million. Excluding the discrete income tax items, the estimated effective tax rate for the six months ended December 31, 2017 was 24.0% compared to 35.6% for the six months ended December 31, 2016. The changes in the effective tax rate and tax expense between the periods resulted primarily from the reduction in the U.S. corporate tax rate following the enactment of the 2017 U.S. Tax Cut and Jobs Act along with changes in the mix of earnings in various geographic jurisdictions between the current year and the same period of last year.

Liquidity and Capital Resources

Our principal need for liquidity and capital resources is to maintain sufficient working capital to support our operations and to invest adequate capital expenditures to grow our business. To date, we finance our operations and capital expenditures primarily through funds generated from operations and borrowing under our term loan.

On August 15, 2017, our Oregon subsidiary, Jireh Semiconductor Incorporated (“Jireh”), entered into a credit agreement with a financial institution (the “Bank”) that provides a term loan in an amount up to \$30.0 million for the purpose of purchasing certain equipment for our fabrication facility located in Oregon. The obligation under the credit agreement is secured by substantially all assets of Jireh and guaranteed by the Company. The credit agreement has a five-year term and matures on August 15, 2022. On January 12, 2018, Jireh drew down the loan in the amount of \$13.2 million and as of January 31, 2018, the total outstanding balance under the loan was \$13.2 million. Beginning of September 2018, Jireh is required to pay to the Bank on each payment date, the outstanding principal amount of the loan in monthly installments. The loan accrues interest based on an adjusted London Interbank Offered Rate (“LIBOR”) as defined in the credit agreement, plus specified applicable margin in the range of 1.75% to 2.25%, based on the outstanding balance of the loan. The credit agreement contains customary restrictive covenants, including certain financial covenants that require the Company to maintain, on a consolidated basis, specified financial ratios and fixed charge coverage ratio. We are in compliance with these covenants.

In March 2016, we entered into the JV Agreement with an initial capitalization of \$330.0 million. By December 31, 2017, the Chongqing Funds contributed a total of \$120.0 million of initial capital in cash, and we contributed \$10.0 million in cash and certain intangible assets, as well as certain packaging equipment as required by the JV Agreement by transferring the legal titles of such equipment to the JV Company. We expect the JV Company to commence initial production in mid-calendar year 2018. Over the long-term, the JV Company plans to construct and operate a 12-inch wafer fabrication facility for the manufacturing of semiconductor products. If both parties agree that the termination of the JV Company is the best interest of each party or the JV Company is bankrupt or insolvent where either party may terminate early, after paying the debts of the JV Company, the remaining assets of the JV Company shall be paid to the Chongqing Funds to cover the principal of its total paid-in contributions plus the interest at 10% simple annual rate prior to distributing the balance of the JV Company's assets to us.

In January 2017, the JV Company entered into the EPC Contract. The total price payable by the JV Company under the EPC Contract is Chinese Renminbi (RMB) 540.0 million, or approximately \$78.0 million based on the currency exchange rate between RMB and U.S. Dollars on the Effective Date, which consists of \$2.8 million (RMB 19.5 million) of design fees and \$75.2 million (RMB 520.5 million) of construction and procurement fees. These fees will be paid by the JV Company pursuant to a payment schedule based on the progress of the construction and the achievements of specified milestones. The payment is subject to volatility as a result of exposure to fluctuations in RMB foreign exchange rates. The Design Fees and Construction Fees are paid by the JV Company pursuant to a payment schedule based on the progress of the construction and the achievements of specified milestones. As of December 31, 2017, the JV Company paid approximately \$37.0 million (RMB 243.8 million), and expect to pay the remaining of \$44.9 million (RMB 296.2 million) in calendar year 2018. In addition, we expect that during the fiscal quarter ending March 31, 2018, the Chongqing Funds will make additional cash contribution to the JV Company pursuant to the terms of the JV Agreement, primarily to cover the remaining costs of the building construction and a portion of the purchase of equipment. Notwithstanding such contribution, we expect the JV Company will be required to obtain additional financing in order to fund the remaining portion of the acquisition of equipment necessary to commence production at the facility. However, there is no guarantee that the JV Company will be able to secure the required amount of financing from the lenders, or if such financing will be available on terms favorable to us. If the JV Company cannot secure sufficient financing, we may use a portion of our cash reserve to further capitalize and finance the JV Company.

In September 2017, the Board of Directors terminated our prior repurchase program that was approved in 2015 and approved a new repurchase program (the “Repurchase Program”). The Repurchase Program allows us to repurchase our common shares from the open market pursuant to a pre-established Rule 10b5-1 trading plan or through privately negotiated transactions up to an aggregate of \$30.0 million. The amount and timing of any repurchases under the Repurchase Program depend on a number of factors, including but not limited to, the trading price, volume and availability of our common shares. Shares repurchased under this program are accounted for as treasury shares and the total cost of shares repurchased is recorded as a reduction of shareholders' equity. There is no guarantee that such repurchases under the Purchase Program will enhance the value of our shares.

During the three and six months ended December 31, 2017, we repurchased 346,621 shares from the open market, for a total cost of \$6.0 million, at an average price of \$17.34 per share, under the share repurchase program. Since the inception of the prior repurchase program in 2010, we repurchased an aggregate of 6,069,714 shares from the open market including shares purchased in the Tender Offer for a total cost of \$56.8 million, at an average price of \$9.35 per share, excluding fees and related expenses. As of December 31, 2017, of the 6,069,714 repurchased shares, 122,154 shares with a weighted average repurchase

price of \$10.70 per share, were reissued at an average price of \$6.06 per share pursuant to option exercises and vested restricted share units. We had \$24.0 million remained available under the Repurchase Program as of December 31, 2017.

We believe that our current cash and cash equivalents and cash flows from operations will be sufficient to meet our anticipated cash needs, including working capital and capital expenditures, for at least the next twelve months. In the long-term, we may require additional capital due to changing business conditions or other future developments, including any investments or acquisitions we may decide to pursue. If our cash is insufficient to meet our needs, we may seek to raise capital through equity or debt financing. The sale of additional equity securities could result in dilution to our shareholders. The incurrence of indebtedness would result in increased debt service obligations and may include operating and financial covenants that would restrict our operations. We cannot be certain that any financing will be available in the amounts we need or on terms acceptable to us, if at all.

Cash and cash equivalents

As of December 31, 2017 and June 30, 2017, we had \$146.2 million and \$115.7 million of cash and cash equivalents, respectively. Our cash and cash equivalents primarily consist of cash on hand and short-term bank deposits with original maturities of three months or less. Of the \$146.2 million and \$115.7 million cash and cash equivalents, \$130.5 million and \$73.9 million, respectively, are deposited with financial institutions outside the United States.

The following table shows our cash flows from operating, investing and financing activities for the periods indicated:

	Six Months Ended December 31,	
	2017	2016
	(in thousands)	
Net cash provided by operating activities	\$21,854	\$18,069
Net cash used in investing activities	(75,123)	(23,464)
Net cash provided by financing activities	82,529	40,973
Effect of exchange rate changes on cash and cash equivalents	1,241	(559)
Net increase in cash and cash equivalents	\$30,501	\$35,019

Cash flows from operating activities

Net cash provided by operating activities of \$21.9 million for the six months ended December 31, 2017 resulted primarily from net income of \$8.5 million and non-cash expenses of \$18.2 million, offset by net changes in assets and liabilities of \$4.8 million. The non-cash expenses of \$18.2 million included a \$14.4 million of depreciation and amortization expenses, a \$6.0 million of share-based compensation expense, and a \$(2.2) million of deferred income taxes. The net changes in assets and liabilities of \$4.8 million were primarily due to a 9.4 million increase in inventories, a \$9.1 million increase in other current and long term assets due to increase in advance payments to vendors, and a \$0.4 million decrease in income taxes payable, partially offset by a \$4.1 million decrease in accounts receivable from timing of billings and collection of payments, a \$8.1 million increase in accrued and other liabilities, and a \$1.9 million increase in accounts payable due to timing of payment.

Net cash provided by operating activities of \$18.1 million for the six months ended December 31, 2016 resulted primarily from net income of \$4.1 million and non-cash expenses of \$22.3 million, offset by net changes in assets and liabilities of \$8.4 million. The non-cash expenses of \$22.3 million include a \$13.3 million of depreciation and amortization expenses, a \$2.9 million of share-based compensation expense, a \$0.4 million of gain on disposal of property and equipment, and a \$6.6 million of deferred income taxes. The net changes in assets and liabilities of \$8.4 million were primarily due to a \$7.0 million increase in other current and long term assets due to increase in advance payments to vendors, a \$4.6 million decrease in accounts payable due to timing of payment, a \$1.4 million increase in inventories, partially offset by \$2.1 million decrease in accounts receivable from timing of billings and collection of

payments, a \$2.3 million increase in accrued and other liabilities and \$0.3 million increase in income taxes payable.

Cash flows from investing activities

Net cash used in investing activities of \$75.1 million for the six months ended December 31, 2017 was primarily attributable to \$64.8 million purchases of property and equipment, including \$41.6 million purchase in the Joint Venture Company and \$10.4 million in purchases of intangible asset during the quarter.

Net cash used in investing activities of \$23.5 million for the six months ended December 31, 2016 was primarily attributable to \$23.7 million purchases of property and equipment and land to increase our in-house production capacity and to support the Joint Venture Company, as well as \$0.1 million increase in restricted cash, partially offset by \$0.4 million proceeds from sale of certain equipment.

Cash flows from financing activities

Net cash used in financing activities of \$82.5 million for the six months ended December 31, 2017 was primarily attributable to \$87.0 million proceeds from investment by noncontrolling interest and \$2.2 million of proceeds from exercise of stock options and issuance of shares under the ESPP, partially offset by \$6.0 million for repurchase of our common shares under the repurchase program, \$0.4 million in payment of capital lease obligations, and \$0.2 million in common shares acquired to settle withholding tax related to vesting of restricted stock units.

Net cash used in financing activities of \$41.0 million for the six months ended December 31, 2016 was primarily attributable to \$33.0 million proceeds from investment by noncontrolling interest and \$8.7 million of proceeds from exercise of stock options and issuance of shares under the ESPP, partially offset by \$0.4 million in payment of capital lease obligations and \$0.3 million in common shares acquired to settle withholding tax related to vesting of restricted stock units.

Capital expenditures

Capital expenditures were \$64.8 million and \$23.7 million for the six months ended December 31, 2017 and 2016, respectively. The increase in capital expenditure was primarily due to EPC construction payment in connection with the JV Transaction, additional purchase of equipment and assets, and investment in R&D to improve our technology and support our new product introductions. In general, our capital expenditures primarily consists of purchases of equipment for our packaging and testing services and for our Oregon fab, purchases of equipment and construction payment in Chongqing for the Joint Venture Company, investment in new technology as well as for upgrading our operational and financial systems. We expect that our capital expenditures will continue to increase in order to support the JV Transaction, including additional costs associated with pre-production activities of the JV Company. We also expect capital expenditure to increase as we accelerate the development of our new digital power business.

Commitments

See Note 10 of the Notes to the Condensed Consolidated Financial Statements contained in this Quarterly Report on Form 10-Q for a description of commitments.

Off-Balance Sheet Arrangements

As of December 31, 2017, we had no material off-balance sheet arrangements as defined in Regulation S-K 303(a)(4)(ii) arrangements.

Contractual Obligations

There were no material changes outside of our ordinary course of business in our contractual obligations from those disclosed in our Annual Report on Form 10-K for the fiscal year ended June 30, 2017.

Recent Accounting Pronouncements

See Note 1 of the Notes to the Condensed Consolidated Financial Statements contained in this Quarterly Report on Form 10-Q for a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects on results of operations and financial condition, which is incorporated herein by reference.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes in the market risks previously disclosed in Part II, Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," of our Annual Report on Form 10-K for the year ended June 30, 2017, filed with the SEC on September 5, 2017.

ITEM 4. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act")), as of the end of the period covered by this report. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of December 31, 2017 have been designed and are functioning effectively to provide reasonable assurance that the information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the three months ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitation on Effectiveness of Controls

While our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance that their respective objectives will be met, we do not expect that our disclosure controls and procedures or our internal control over financial reporting are or will be capable of preventing or detecting all errors and all fraud. Any control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are currently not a party to any material legal proceedings. We have in the past, and may from time to time in the future, become involved in legal proceedings arising from the normal course of business activities. The semiconductor industry is characterized by frequent claims and litigation, including claims regarding patent and other intellectual property rights as well as improper hiring practices. Irrespective of the validity of such claims, we could incur significant costs in the defense thereof or could suffer adverse effects on its operations.

ITEM 1A. RISK FACTORS

Item 1A of Part I of our Annual Report on Form 10-K for the year ended June 30, 2017, filed with the SEC on September 5, 2017, contains risk factors identified by the Company. Except as set forth below, there have been no material changes to the risk factors we previously disclosed in our filings with the SEC. Our operations could also be affected by additional factors that are not presently known to us or by factors that we currently consider immaterial to our business.

We may not be able to fully realize the anticipated benefits and advantages from our joint venture with the Chongqing government.

In March 2016, we entered into a joint venture contract (the “JV Agreement”) with two investment funds owned by the municipalities of Chongqing, China (the “Chongqing Funds”), pursuant to which we and the Chongqing Funds formed a joint venture (the “JV Company”) for the purpose of constructing a power semiconductor packaging/testing and wafer fabrication facility. The total initial capitalization of the JV Company is \$330.0 million (the “Initial Capitalization”), which consists of (i) a total of \$162.0 million of cash contribution from the Chongqing Funds; (ii) \$74.0 million of existing packaging and testing equipment owned by us located in Shanghai, China; (iii) certain intellectual property rights, including patents, held by us relating to the manufacturing technology valued at \$84.0 million; and (iv) \$10.0 million of cash contribution by us. We own 51%, and the Chongqing Funds owns 49%, of the equity interest in the JV Company. The Initial Capitalization will be completed in stages.

As the JV Company is completing the construction of its assembly and wafer fabrication facilities, we anticipate the pre-production costs of the facilities will increase significantly in the short term, including costs relating to the installation of equipment; the performance of qualification procedures; increased demand for electrical power and utility; increased headcounts as a result of hiring additional personnel, staff and operators; and establishment of additional administrative and management functions and systems. In the short term, we may not be able to generate sufficient revenue to offset these costs, and in the long term, the JV Company may not succeed in producing the anticipated level of revenue, in which case these increased costs will negatively impact our results of operations.

We expect the JV Company to commence initial packaging production upon the achievement of certain milestones set forth in the JV Agreement, including construction and funding milestones. Over the long-term, the JV Company expects to construct a 12-inch wafer fabrication facility for the production of power semiconductors. We may encounter unanticipated difficulties and obstacles that may delay or prevent the commencement of the JV Company's operation, some of which are outside of our control. These difficulties may include unexpected costs and delays in transferring our assembly and testing operations to the new facility; inability to coordinate and integrate the labor forces; failure of the Chongqing Funds to meet their obligations under the JV Agreement, such as delays in capitalizing the JV Company based on our original timeline; inability to secure sufficient financing from third parties to fund the operation and capital expenditure of the JV Company; and inability to provide customers with required

services. In addition, we may not be able to fully utilize our packaging and testing capacity during the period when our facilities are being transferred from Shanghai to Chongqing, which may negatively impact our business and results of operations.

Even if the joint venture is able to commence operation, we may not fully realize the anticipated benefits of the project, such as cost savings, improvement in working capital, increased gross margin, revenue and profitability, enhanced market share for our products; and increased diversification of our products and customers. The establishment and operation of a new manufacturing facility involve significant risks and challenges, including, but are not limited to, the following:

- Inability to gain or sustain sufficient new customers and market shares to offset the additional costs of building and operating a new facility;
- Lack of sufficient control over the operation and finances of the joint venture;
- Insufficient personnel with requisite expertise and experiences to operate a 12-in fabrication facility;
- Inability to fully integrate the joint venture with our existing fabrication facility in Oregon, and inability to fully utilize both fabrication facilities;
- Failure of Chongqing Funds to meet its obligations under the JV Agreement;
- Difficulties in protecting and enforcing our intellectual property rights;
- Difficulties in maintaining international communications and coordination between our locations in the U.S. and China;
- Inability to take advantage of the expected tax savings;
 - Changes or uncertainties in economic, legal, regulatory, social and political conditions in China, and lack of transparency and certainty in the Chinese regulatory process;
- Labor disputes and difficulties in recruiting new employees; and
- Additional costs and complexity with compliance of local and state regulations of Chongqing.

In January 2017, we entered into the EPC Contract with the Contractor for the purpose of constructing the manufacturing facility contemplated under the JV Agreement. The EPC Contract requires us to make payments to the Contractor pursuant to a schedule based on the progress of the construction and the achievements of specified milestones. However, we do not have full control over the work performed by the Contractor. If the Contractor is not able to complete its work in accordance with the schedule we initially agreed, or if the quality of work performed by the Contractor fails to meet our standard, or a dispute occurs between us and the Contractor regarding such work, the JV Transaction will be delayed, which will have an adverse effect on our business operation and financial conditions. Furthermore, the EPC Contract contemplates a specified design and architecture for the manufacturing facility based on our current projection. As the construction proceeds, we or the Contractor may encounter difficulties or unexpected events that would require us to make material modifications to such design and architecture, which will increase our costs significantly and delay the progress of the JV Transaction.

Any of the foregoing risks could materially reduce the expected return on our investment in the JV Transaction and adversely affects our business operations, financial performance and the trading price of our shares.

We may not be able to successfully develop our digital power business.

In September 2017, we entered into a license agreement with STMicro, which allows us to develop and market certain digital multi-phase controller products and enter into a new market, primarily in the computer server segment. We are in the process of developing this new digital power business and expect to incur significant startup costs, including costs relating to recruiting and hiring of qualified engineers and technical staff; development of marketing and sales infrastructure, particularly in the computer server market; and other research and development and management activities. We do not expect this new business to generate sufficient revenue to offset our costs in the short term, and there is no guarantee that our attempt to develop a profitable digital business will ultimately succeed. The success of our new digital power business depends on a number of factors, including the following:

- competition from other companies with greater resources;
- the availability of and our ability to recruit and attract qualified personnel;
- our lack of experience in the digital power market;
- difficulties in designing products acceptable to customers; and
- sales and marketing capability.

Any one of these factors may negatively impact our ability to create a successful digital power business, which will adversely affect our financial condition and results of operation.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In September 2017, the Board of Directors terminated our prior repurchase program that was approved in 2015 and approved a new repurchase program (the “Repurchase Program”), which allows us to repurchase our common shares from the open market pursuant to a pre-established Rule 10b5-1 trading plan or through privately negotiated transactions up to an aggregate of \$30.0 million. The amount and timing of any repurchases under the Repurchase Program depend on a number of factors, including but not limited to, the trading price, volume and availability of our common shares. Shares repurchased under this program are accounted for as treasury shares and the total cost of shares repurchased is recorded as a reduction of shareholders' equity. There is no guarantee that such repurchases under the Repurchase Program will enhance the value of our shares. As of December 31, 2017, approximately \$24.0 million remained available under the Repurchase Program.

The following table sets forth the share repurchases under this program during the second fiscal quarter ended December 31, 2017.

Period	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Be Purchased Under the Plans or Programs
October 1, 2017 to October 31, 2017	171,023	\$ 17.27	171,023	
November 1, 2017 to November 30, 2017	58,469	\$ 17.47	58,469	
December 1, 2017 to December 31, 2017	117,129	\$ 17.38	117,129	
Total repurchase during the three months ended December 31, 2017	346,621	\$ 17.34	346,621	\$ 23,989,000

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

- 3.1 Amendment No. 1 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 001-34717) filed with the Commission on November 14, 2017) to the Amended and Restated Bye-laws (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 001-34717) filed with the Commission on November 12, 2015)
- 10.1(+) Amended and Restated 2017 Executive Incentive Plan(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Commission on November 21, 2017)
- 31.1 Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance
- 101.SCH XBRL Taxonomy Extension Schema
- 101.CAL XBRL Taxonomy Extension Calculation
- 101.DEF XBRL Taxonomy Extension Definition
- 101.LAB XBRL Taxonomy Extension Labels
- 101.PRE XBRL Taxonomy Extension Presentation
- (+) Indicates management contract or compensatory plan or arrangement.

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.

February 8, 2018

ALPHA AND OMEGA SEMICONDUCTOR
LIMITED

By: /s/ YIFAN LIANG

Yifan Liang

Chief Financial Officer and Corporate Secretary
(Principal Financial Officer)