

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

OR

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

Commission file number: 000-51026

**Monolithic Power Systems, Inc.**  
(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**77-0466789**  
(I.R.S. Employer  
Identification Number)

**4040 Lake Washington Blvd. NE, Suite 201, Kirkland, Washington 98033**  
(Address of principal executive offices)(Zip Code)

**(425) 296-9956**  
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value \$0.001 per share	MPWR	The NASDAQ Global Select Market

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 every Interactive Data File required to be submitted 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 such files). Yes  No

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

Large accelerated filer  Accelerated filer  Non-accelerated filer   
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

There were 43,439,000 shares of the registrant's common stock issued and outstanding as of October 28, 2019.

MONOLITHIC POWER SYSTEMS, INC.

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## PART I. FINANCIAL INFORMATION

## ITEM I. FINANCIAL STATEMENTS

**MONOLITHIC POWER SYSTEMS, INC.**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
(in thousands, except par value)  
(unaudited)

	September 30, 2019	December 31, 2018
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 205,229	\$ 172,704
Short-term investments	213,511	204,577
Accounts receivable, net	58,261	55,214
Inventories	135,634	136,384
Other current assets	16,660	11,931
Total current assets	629,295	580,810
Property and equipment, net	217,043	150,001
Long-term investments	3,264	3,241
Goodwill	6,571	6,571
Deferred tax assets, net	16,619	16,830
Other long-term assets	43,343	35,979
Total assets	\$ 916,135	\$ 793,432
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 30,318	\$ 22,678
Accrued compensation and related benefits	28,724	18,799
Other accrued liabilities	45,984	38,962
Total current liabilities	105,026	80,439
Income tax liabilities	32,402	34,375
Other long-term liabilities	44,279	38,525
Total liabilities	181,707	153,339
Commitments and contingencies		
Stockholders' equity:		
Common stock and additional paid-in capital: \$0.001 par value; shares authorized: 150,000; shares issued and outstanding: 43,435 and 42,505, respectively	528,775	450,908
Retained earnings	215,692	194,728
Accumulated other comprehensive loss	(10,039)	(5,543)
Total stockholders' equity	734,428	640,093
Total liabilities and stockholders' equity	\$ 916,135	\$ 793,432

See accompanying notes to unaudited condensed consolidated financial statements.

**MONOLITHIC POWER SYSTEMS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per-share amounts)  
(unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Revenue	\$ 168,813	\$ 159,975	\$ 461,183	\$ 428,885
Cost of revenue	75,655	70,957	206,794	190,810
Gross profit	<u>93,158</u>	<u>89,018</u>	<u>254,389</u>	<u>238,075</u>
Operating expenses:				
Research and development	27,742	25,630	80,746	70,720
Selling, general and administrative	34,692	29,552	100,302	85,431
Litigation expense	692	343	1,473	1,513
Total operating expenses	<u>63,126</u>	<u>55,525</u>	<u>182,521</u>	<u>157,664</u>
Income from operations	30,032	33,493	71,868	80,411
Interest and other income, net	2,257	2,714	7,827	5,387
Income before income taxes	32,289	36,207	79,695	85,798
Income tax expense	2,761	4,639	3,293	8,168
Net income	<u>\$ 29,528</u>	<u>\$ 31,568</u>	<u>\$ 76,402</u>	<u>\$ 77,630</u>
Net income per share:				
Basic	\$ 0.68	\$ 0.75	\$ 1.77	\$ 1.84
Diluted	\$ 0.64	\$ 0.71	\$ 1.68	\$ 1.75
Weighted-average shares outstanding:				
Basic	43,308	42,362	43,055	42,173
Diluted	45,833	44,669	45,516	44,450

See accompanying notes to unaudited condensed consolidated financial statements.

**MONOLITHIC POWER SYSTEMS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(in thousands)  
(unaudited)

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Net income	\$ 29,528	\$ 31,568	\$ 76,402	\$ 77,630
Other comprehensive loss, net of tax:				
Foreign currency translation adjustments	(6,135)	(4,526)	(6,167)	(6,999)
Change in unrealized gain (loss) on available-for-sale securities, net of tax of \$(38), \$241, \$(200) and \$241, respectively	234	491	1,671	(554)
Other comprehensive loss, net of tax	(5,901)	(4,035)	(4,496)	(7,553)
Comprehensive income	<u>\$ 23,627</u>	<u>\$ 27,533</u>	<u>\$ 71,906</u>	<u>\$ 70,077</u>

See accompanying notes to unaudited condensed consolidated financial statements.

**MONOLITHIC POWER SYSTEMS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(in thousands, except per-share amounts)  
(unaudited)

	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive	Total Stockholders' Equity
	Shares	Amount		Loss	
<b>Three Months Ended September 30, 2019</b>					
Balance as of July 1, 2019	43,234	\$ 503,759	\$ 204,533	\$ (4,138)	\$ 704,154
Net income	-	-	29,528	-	29,528
Other comprehensive loss	-	-	-	(5,901)	(5,901)
Dividends and dividend equivalents declared (\$0.40 per share)	-	-	(18,369)	-	(18,369)
Common stock issued under employee equity incentive plans	187	2,090	-	-	2,090
Common stock issued under employee stock purchase plan	14	1,650	-	-	1,650
Stock-based compensation expense	-	21,276	-	-	21,276
Balance as of September 30, 2019	43,435	\$ 528,775	\$ 215,692	\$ (10,039)	\$ 734,428

	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive	Total Stockholders' Equity
	Shares	Amount		Loss	
<b>Three Months Ended September 30, 2018</b>					
Balance as of July 1, 2018	42,285	\$ 417,866	\$ 162,859	\$ (1,705)	\$ 579,020
Net income	-	-	31,568	-	31,568
Other comprehensive loss	-	-	-	(4,035)	(4,035)
Dividends and dividend equivalents declared (\$0.30 per share)	-	-	(13,608)	-	(13,608)
Common stock issued under employee equity incentive plans	108	916	-	-	916
Common stock issued under employee stock purchase plan	15	1,465	-	-	1,465
Stock-based compensation expense	-	14,838	-	-	14,838
Balance as of September 30, 2018	42,408	\$ 435,085	\$ 180,819	\$ (5,740)	\$ 610,164

	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive	Total Stockholders' Equity
	Shares	Amount		Loss	
<b>Nine Months Ended September 30, 2019</b>					
Balance as of January 1, 2019	42,505	\$ 450,908	\$ 194,728	\$ (5,543)	\$ 640,093
Net income	-	-	76,402	-	76,402
Other comprehensive loss	-	-	-	(4,496)	(4,496)
Dividends and dividend equivalents declared (\$1.20 per share)	-	-	(55,438)	-	(55,438)
Common stock issued under employee equity incentive plans	902	14,561	-	-	14,561
Common stock issued under employee stock purchase plan	28	3,277	-	-	3,277
Stock-based compensation expense	-	60,029	-	-	60,029
Balance as of September 30, 2019	43,435	\$ 528,775	\$ 215,692	\$ (10,039)	\$ 734,428

	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive	Total Stockholders' Equity
	Shares	Amount		Income (Loss)	
<b>Nine Months Ended September 30, 2018</b>					
Balance as of January 1, 2018	41,614	\$ 376,586	\$ 143,608	\$ 1,813	\$ 522,007
Net income	-	-	77,630	-	77,630
Other comprehensive loss	-	-	-	(7,553)	(7,553)
Dividends and dividend equivalents declared (\$0.90 per share)	-	-	(40,798)	-	(40,798)
Common stock issued under employee equity incentive plans	761	9,684	-	-	9,684
Common stock issued under employee stock purchase plan	33	3,028	-	-	3,028
Stock-based compensation expense	-	45,787	-	-	45,787
Cumulative effect of a change in accounting principles	-	-	379	-	379
Balance as of September 30, 2018	42,408	\$ 435,085	\$ 180,819	\$ (5,740)	\$ 610,164

See accompanying notes to unaudited condensed consolidated financial statements.

**MONOLITHIC POWER SYSTEMS, INC.**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**

(in thousands)  
(unaudited)

	<b>Nine Months Ended September 30,</b>	
	<b>2019</b>	<b>2018</b>
<b>Cash flows from operating activities:</b>		
Net income	\$ 76,402	\$ 77,630
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	10,817	9,058
Gain on disposal and sale of property and equipment, net	(282)	-
Amortization of premium on available-for-sale securities	384	1,122
Gain on deferred compensation plan investments	(2,630)	(949)
Deferred taxes, net	(18)	3,169
Stock-based compensation expense	60,019	45,765
Changes in operating assets and liabilities:		
Accounts receivable	(3,048)	(22,752)
Inventories	754	(37,496)
Other assets	(5,849)	(665)
Accounts payable	7,173	5,978
Accrued compensation and related benefits	10,328	7,838
Other accrued liabilities	7,453	4,635
Income tax liabilities	(6,186)	528
Net cash provided by operating activities	<u>155,317</u>	<u>93,861</u>
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(87,129)	(18,057)
Acquisition of in-place leases	(981)	-
Purchases of short-term investments	(106,409)	(86,021)
Proceeds from maturities and sales of short-term investments	98,814	83,679
Proceeds from sales of long-term investments	125	-
Proceeds from sales of property and equipment	9,268	-
Contributions to deferred compensation plan, net	(1,797)	(1,396)
Net cash used in investing activities	<u>(88,109)</u>	<u>(21,795)</u>
<b>Cash flows from financing activities:</b>		
Property and equipment purchased on extended payment terms	(204)	-
Proceeds from common stock issued under employee equity incentive plans	14,561	9,684
Proceeds from common stock issued under employee stock purchase plan	3,277	3,028
Dividends and dividend equivalents paid	(48,641)	(34,381)
Net cash used in financing activities	<u>(31,007)</u>	<u>(21,669)</u>
Effect of change in exchange rates	(2,516)	(2,062)
Net increase in cash, cash equivalents and restricted cash	33,685	48,335
Cash, cash equivalents and restricted cash, beginning of period	172,818	82,874
Cash, cash equivalents and restricted cash, end of period	<u>\$ 206,503</u>	<u>\$ 131,209</u>
Supplemental disclosures for cash flow information:		
Cash paid for taxes	\$ 9,472	\$ 6,388
Non-cash investing and financing activities:		
Liability accrued for property and equipment purchases	\$ 4,969	\$ 1,563
Liability accrued for dividends and dividend equivalents	\$ 20,866	\$ 15,397

See accompanying notes to unaudited condensed consolidated financial statements.

**MONOLITHIC POWER SYSTEMS, INC.**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**  
**(Unaudited)**

**I. BASIS OF PRESENTATION**

The accompanying unaudited condensed consolidated financial statements have been prepared by Monolithic Power Systems, Inc. (the “Company” or “MPS”) in accordance with the rules and regulations of the Securities and Exchange Commission (the “SEC”). Certain information and disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) have been condensed or omitted in accordance with these accounting principles, rules and regulations. The information in this report should be read in conjunction with the Company’s audited consolidated financial statements and notes thereto included in the Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 1, 2019.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements reflect all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the Company’s financial position, results of operations and cash flows for the interim periods presented. The financial statements contained in this Form 10-Q are not necessarily indicative of the results that may be expected for the year ending December 31, 2019 or for any other future periods.

***Summary of Significant Accounting Policies***

Except for the changes related to leases discussed in Note 6, there have been no other changes to the Company’s significant accounting policies during the three and nine months ended September 30, 2019, as compared to the significant accounting policies described in the Company’s audited consolidated financial statements included in the Annual Report on Form 10-K for the year ended December 31, 2018.

***Recently Adopted Accounting Pronouncement***

In February 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2016-02, *Leases (Topic 842)*, which requires entities to recognize right-of-use (“ROU”) assets and lease liabilities on the balance sheets for leases with terms greater than 12 months. In addition, the standard applies to leases embedded in service or other arrangements. The Company adopted the standard on January 1, 2019 using the modified retrospective method and did not restate comparative periods, as permitted by the standard. In addition, the Company elected the transition practical expedients to not reassess its contracts that existed prior to January 1, 2019.

Upon adoption, the Company recognized ROU assets and lease liabilities of its outstanding operating leases on the Condensed Consolidated Balance Sheets, primarily related to real estate. The adoption did not have a material impact on the Condensed Consolidated Statements of Operations or the Condensed Consolidated Statements of Cash Flows. See Note 6 for further discussion.

***Recent Accounting Pronouncements Not Yet Adopted as of September 30, 2019***

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement*, which changes certain disclosure requirements, including those related to Level 3 fair value measurements. The standard will be effective for annual reporting periods beginning after December 15, 2019. Early adoption is permitted. The Company is evaluating the impact of the standard and does not expect the adoption to have a material impact on its disclosures.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350)*, which simplifies the accounting for goodwill impairment. The guidance removes step two of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit’s carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Entities will continue to have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. The standard will be applied prospectively, and will be effective for annual reporting periods beginning after December 15, 2019. Early adoption is permitted. The Company is evaluating the impact of the standard and does not expect the adoption to have a material impact on its annual goodwill impairment test.



In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326)*, which introduces a model based on expected losses to estimate credit losses for most financial assets and certain other instruments. In addition, for available-for-sale debt securities, the standard eliminates the concept of other-than-temporary impairment and entities will be required to recognize an allowance for credit losses rather than reductions in the amortized cost of the securities. The standard will be effective for annual reporting periods beginning after December 15, 2019, with early adoption permitted for annual reporting periods beginning after December 15, 2018. Entities will apply the standard by recording a cumulative-effect adjustment to retained earnings. Based on its preliminary assessment, the Company does not expect the standard to have a material impact on its financial statements upon adoption.

## 2. REVENUE RECOGNITION

### *Revenue from Product Sales*

The Company generates revenue primarily from product sales, which include assembled and tested integrated circuits, as well as dies in wafer form. These product sales were 99% and 98% of the Company's total revenue for the three months ended September 30, 2019 and 2018, respectively, and 99% and 98% of the Company's total revenue for the nine months ended September 30, 2019 and 2018, respectively. The remaining revenue primarily includes royalty revenue from licensing arrangements and revenue from wafer testing services performed for third parties, which have not been significant in all periods presented. See Note 8 for the disaggregation of the Company's revenue by geographic regions and by product families.

The Company sells its products primarily through third-party distributors, value-added resellers, original equipment manufacturers, original design manufacturers and electronic manufacturing service providers. For the three months ended September 30, 2019 and 2018, 88% and 87%, respectively, of the Company's product sales were made through distribution arrangements. For the nine months ended September 30, 2019 and 2018, 83% and 87%, respectively, of the Company's product sales were made through distribution arrangements. These distribution arrangements contain enforceable rights and obligations specific to those distributors and not the end customers. Purchase orders, which are generally governed by sales agreements or the Company's standard terms of sale, set the final terms for unit price, quantity, shipping and payment agreed by both parties. The Company considers purchase orders to be the contracts with customers. The unit price as stated on the purchase orders is considered the observable, stand-alone selling price for the arrangements.

The Company recognizes revenue when it satisfies a performance obligation by transferring control of the promised goods or services to its customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. The Company excludes taxes assessed by government authorities, such as sales taxes, from revenue.

Product sales consist of a single performance obligation that the Company satisfies at a point in time. The Company recognizes product revenue from distributors and direct end customers when the following events have occurred: (a) the Company has transferred physical possession of the products, (b) the Company has a present right to payment, (c) the customer has legal title to the products, and (d) the customer bears significant risks and rewards of ownership of the products. In accordance with the shipping terms specified in the contracts, these criteria are generally met when the products are shipped from the Company's facilities (such as the "Ex Works" shipping term) or delivered to the customers' locations (such as the "Delivered Duty Paid" shipping term).

Under certain consignment agreements, revenue is not recognized when the products are shipped and delivered to be held at customers' designated locations because the Company continues to control the products and retain ownership, and the customers do not have an unconditional obligation to pay. The Company recognizes revenue when the customers consume the products from the consigned inventory locations or, in some cases, after a 60-day period from the delivery date has passed, at which time control transfers to the customers and the Company invoices them for payment.

### *Variable Consideration*

The Company accounts for price adjustment and stock rotation rights as variable consideration that reduces the transaction price, and recognizes that reduction in the same period the associated revenue is recognized. Three U.S.-based distributors have price adjustment rights when they sell the Company's products to their end customers at a price that is lower than the distribution price invoiced by the Company. When the Company receives claims from the distributors that products have been sold to the end customers at the lower price, the Company issues the distributors credit memos for the price adjustments. The Company estimates the price adjustments using the expected value method based on an analysis of historical claims, at both the distributor and product level, as well as an assessment of any known trends of product sales mix. Other U.S. distributors and non-U.S. distributors, which make up the majority of the Company's total sales to distributors, do not have price adjustment rights. The Company records a credit against accounts receivable for the estimated price adjustments, with a corresponding reduction to revenue.

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Certain distributors have limited stock rotation rights that permit the return of a small percentage of the previous six months' purchases in accordance with the contract terms. The Company estimates the stock rotation returns using the expected value method based on an analysis of historical returns, and the current level of inventory in the distribution channel. The Company records a liability for the stock rotation reserve, with a corresponding reduction to revenue. In addition, the Company recognizes an asset for product returns which represents the right to recover products from the customers related to stock rotations, with a corresponding reduction to cost of revenue.

**Contract Balances**

The Company records a receivable when it has an unconditional right to receive consideration after the performance obligations are satisfied. As of September 30, 2019 and December 31, 2018, accounts receivable totaled \$58.3 million and \$55.2 million, respectively. The Company did not record any allowance for doubtful accounts as of September 30, 2019 and December 31, 2018.

For certain customers located in Asia, the Company requires cash payments two weeks before the products are scheduled to be shipped to the customers. The Company records these payments received in advance of performance as customer prepayments within current accrued liabilities. As of September 30, 2019 and December 31, 2018, customer prepayments totaled \$4.2 million and \$2.5 million, respectively. The increase in the customer prepayment balance for the nine months ended September 30, 2019 resulted from an increase in unfulfilled customer orders for which the Company has received payments. For the nine months ended September 30, 2019, the Company recognized \$2.5 million of revenue that was included in the customer prepayment balance as of December 31, 2018.

**Practical Expedients**

The Company has elected the practical expedient to expense sales commissions as incurred because the amortization period would have been one year or less.

The Company's standard payment terms generally require customers to pay 30 to 60 days after the Company satisfies the performance obligations. For those customers who are required to pay in advance, the Company satisfies the performance obligations generally within two weeks. The Company has elected not to determine whether contacts with customers contain significant financing components.

The Company's unsatisfied performance obligations primarily include products held in consignment arrangements and customer purchase orders for products that the Company has not yet shipped. Because the Company expects to fulfill these performance obligations within one year, the Company has elected not to disclose the amount of these remaining performance obligations or the timing of recognition.

**3. STOCK-BASED COMPENSATION**

**2014 Equity Incentive Plan (as amended, the "2014 Plan")**

The Board of Directors adopted the 2014 Plan in April 2013, and the stockholders approved it in June 2013. In October 2014, the Board of Directors approved certain amendments to the 2014 Plan. The 2014 Plan, as amended, became effective on November 13, 2014 and provides for the issuance of up to 5.5 million shares. The 2014 Plan will expire on November 13, 2024. As of September 30, 2019, 1.6 million shares remained available for future issuance under the 2014 Plan.

**Stock-Based Compensation Expense**

The Company recognized stock-based compensation expenses as follows (in thousands):

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Cost of revenue	\$ 641	\$ 471	\$ 1,834	\$ 1,384
Research and development	4,960	3,979	14,801	12,168
Selling, general and administrative	15,699	10,393	43,384	32,213
Total stock-based compensation expense	\$ 21,300	\$ 14,843	\$ 60,019	\$ 45,765
Tax benefit related to stock-based compensation	\$ 595	\$ 764	\$ 2,139	\$ 2,723

**Restricted Stock Units (“RSUs”)**

The Company’s RSUs include time-based RSUs, RSUs with performance conditions (“PSUs”), RSUs with market conditions (“MSUs”), and RSUs with both market and performance conditions (“MPSUs”). Vesting of awards with performance conditions or market conditions is subject to the achievement of pre-determined performance goals and the approval of such achievement by the Compensation Committee of the Board of Directors (the “Compensation Committee”). All awards include service conditions which require continued employment with the Company.

A summary of RSU activity is presented in the table below (in thousands, except per-share amounts):

	Time-Based RSUs		PSUs and MPSUs		MSUs		Total	
	Number of Shares	Weighted-Average Grant Date Fair Value Per Share	Number of Shares	Weighted-Average Grant Date Fair Value Per Share	Number of Shares	Weighted-Average Grant Date Fair Value Per Share	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Outstanding at January 1, 2019	240	\$ 95.38	2,174	\$ 61.61	2,219	\$ 35.69	4,633	\$ 50.94
Granted	47	\$ 141.03	535(1)	\$ 98.45	-	\$ -	582	\$ 101.89
Vested	(88)	\$ 79.91	(571)	\$ 54.41	(243)	\$ 23.57	(902)	\$ 48.61
Forfeited	(6)	\$ 110.23	(43)	\$ 42.72	(7)	\$ 68.48	(56)	\$ 53.06
Outstanding at September 30, 2019	193	\$ 113.22	2,095	\$ 73.37	1,969	\$ 37.08	4,257	\$ 58.38

(1) Amount reflects the number of PSUs that may ultimately be earned based on management’s probability assessment of the achievement of performance conditions at each reporting period.

The intrinsic value related to vested RSUs was \$26.1 million and \$13.9 million for the three months ended September 30, 2019 and 2018, respectively. The intrinsic value related to vested RSUs was \$110.1 million and \$79.0 million for the nine months ended September 30, 2019 and 2018, respectively. As of September 30, 2019, the total intrinsic value of all outstanding RSUs was \$617.6 million, based on the closing stock price of \$155.63. As of September 30, 2019, unamortized compensation expense related to all outstanding RSUs was \$120.5 million with a weighted-average remaining recognition period of approximately 3.4 years.

Cash proceeds from vested PSUs with a purchase price totaled \$14.6 million and \$9.6 million for the nine months ended September 30, 2019 and 2018, respectively.

**Time-Based RSUs:**

For the nine months ended September 30, 2019, the Compensation Committee granted 88,000 RSUs with service conditions to non-executive employees and non-employee directors. The RSUs vest over four years for employees and one year for directors, subject to continued service with the Company.

**2019 PSUs:**

In February 2019, the Compensation Committee granted 151,000 PSUs to the executive officers, which represent a target number of shares to be earned based on the Company’s average two-year (2019 and 2020) revenue growth rate compared against the analog industry’s average two-year revenue growth rate as published by the Semiconductor Industry Association (“2019 Executive PSUs”). The maximum number of shares that an executive officer can earn is 300% of the target number of the 2019 Executive PSUs. 50% of the 2019 Executive PSUs will vest in the first quarter of 2021 if the pre-determined performance goals are met during the performance period. The remaining 2019 Executive PSUs will vest over the following two years on a quarterly basis. Assuming the achievement of the highest level of performance goals, the total stock-based compensation cost for the 2019 Executive PSUs is \$46.6 million.

The 2019 Executive PSUs contain a purchase price feature, which requires the employees to pay the Company \$30 per share upon vesting of the shares. Shares that do not vest will not be subject to the purchase price payment. The Company determined the grant date fair value of the 2019 Executive PSUs using the Black-Scholes model with the following assumptions: stock price of \$130.67, expected term of 2.6 years, expected volatility of 29.0% and risk-free interest rate of 2.5%.

**2004 Employee Stock Purchase Plan (“ESPP”)**

For the three months ended September 30, 2019 and 2018, 14,000 and 15,000 shares, respectively, were issued. For the nine months ended September 30, 2019 and 2018, 28,000 and 33,000 shares, respectively, were issued. As of September 30, 2019, 4.5 million shares were available for future issuance under the ESPP.

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The intrinsic value of the shares issued was \$0.4 million and \$0.6 million for the three months ended September 30, 2019 and 2018, respectively. The intrinsic value of the shares issued was \$0.7 million and \$1.1 million for the nine months ended September 30, 2019 and 2018, respectively. As of September 30, 2019, the unamortized expense was \$0.4 million, which will be recognized through the first quarter of 2020. The Black-Scholes model was used to value the employee stock purchase rights with the following weighted-average assumptions:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Expected term (in years)	0.5	0.5	0.5	0.5
Expected volatility	36.7%	30.8%	37.0%	29.5%
Risk-free interest rate	1.9%	2.2%	2.2%	2.0%
Dividend yield	1.1%	0.9%	1.1%	1.0%

Cash proceeds from the shares issued under the ESPP were \$3.3 million and \$3.0 million for the nine months ended September 30, 2019 and 2018, respectively.

#### 4. BALANCE SHEET COMPONENTS

##### *Inventories*

Inventories consist of the following (in thousands):

	September 30, 2019	December 31, 2018
Raw materials	\$ 27,001	\$ 43,017
Work in process	43,076	38,674
Finished goods	65,557	54,693
Total	<u>\$ 135,634</u>	<u>\$ 136,384</u>

##### *Other Current Assets*

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

	September 30, 2019	December 31, 2018
RSU tax withholding proceeds receivable	\$ 5,331	\$ 39
Prepaid expense	4,024	3,425
Assets for product returns	2,261	1,602
Interest receivable	1,869	1,441
Value-added tax receivable	628	423
Prepaid wafer refund receivable	-	4,297
Other	2,547	704
Total	<u>\$ 16,660</u>	<u>\$ 11,931</u>

##### *Other Long-Term Assets*

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

	September 30, 2019	December 31, 2018
Deferred compensation plan assets	\$ 36,397	\$ 31,970
Operating lease ROU assets	3,102	-
Prepaid expense	2,274	2,713
Other	1,570	1,296
Total	<u>\$ 43,343</u>	<u>\$ 35,979</u>

**Other Accrued Liabilities**

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

	September 30, 2019	December 31, 2018
Dividends and dividend equivalents	\$ 21,895	\$ 15,044
Stock rotation and sales returns	7,884	5,363
Customer prepayments	4,160	2,520
Income tax payable	2,778	7,018
Operating lease liabilities	1,318	-
Warranty	1,267	4,564
Commissions	976	1,369
Other	5,706	3,084
<b>Total</b>	<b>\$ 45,984</b>	<b>\$ 38,962</b>

**Other Long-Term Liabilities**

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

	September 30, 2019	December 31, 2018
Deferred compensation plan liabilities	\$ 36,968	\$ 32,283
Dividend equivalents	6,091	6,145
Operating lease liabilities	1,190	-
Other	30	97
<b>Total</b>	<b>\$ 44,279</b>	<b>\$ 38,525</b>

**5. REAL ESTATE TRANSACTION**

In March 2019, the Company completed the purchase of an office building and land located in Kirkland, Washington for \$52.9 million in cash. The property also had in-place leases for a portion of the building which were assumed by the Company. The Company accounted for the purchase as an asset acquisition and capitalized \$0.4 million of transaction costs.

The purchase price allocation was as follows (in thousands):

Building	\$ 30,078
Land	22,254
In-place leases	981
<b>Total</b>	<b>\$ 53,313</b>

The fair value of the building was determined based on the income approach, which considered the discounted cash flows and direct capitalization analysis, and the sales comparison approach. The fair value of land was determined based on the sales comparison approach. The fair value of the in-place leases was determined primarily based on the analysis of the economic benefits of certain cost savings attributable to the leases.

The building is depreciated over a useful life of 40 years and the in-place leases are amortized over the average remaining lease terms of 3.5 years. Land is not depreciated.

**6. LEASES****Lessee**

The Company has operating leases primarily for administrative and sales and marketing offices, manufacturing operations and research and development facilities, employee housing units, and certain equipment. These leases have remaining lease terms from less than a year to four years. Some of these leases include options to renew the lease term for up to five years or on a month-to-month basis. The Company does not have finance lease arrangements.

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Operating lease ROU assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. ROU assets also include any initial direct costs incurred and prepaid lease payments, less lease incentives received. As of September 30, 2019, operating lease ROU assets totaled \$3.1 million and operating lease liabilities totaled \$2.5 million. The Company recognizes operating lease costs on a straight-line basis over the lease term.

As permitted by Topic 842, the Company does not recognize leases with a term of 12 months or less at the commencement date on the Condensed Consolidated Balance Sheets. For those lease arrangements that contain lease and nonlease components, the Company has elected the practical expedient to combine them as single lease components. Because the implicit rate in each lease is not readily determinable, the Company uses its incremental borrowing rate to determine the present value of the remaining lease payments.

The following tables summarize certain information related to the leases (in thousands, except percentages):

	<b>Three Months Ended September 30, 2019</b>	<b>Nine Months Ended September 30, 2019</b>
<b>Lease costs:</b>		
Operating lease costs	\$ 377	\$ 1,013
Short-term and other lease costs	102	394
Total lease costs	<u>\$ 479</u>	<u>\$ 1,407</u>
<b>Cash paid for amounts included in the measurement of lease liabilities:</b>		
Operating cash flows from operating leases	\$ 299	\$ 1,026
ROU assets obtained in exchange for operating lease liabilities (1)	\$ 869	\$ 3,450
		<b>September 30, 2019</b>
Weighted-average remaining lease term (in years)		2.3
Weighted-average discount rate		3.9%

(1) For the nine months ended September 30, 2019, the amount includes \$2.2 million for operating leases existing on January 1, 2019.

As of September 30, 2019, the maturities of the lease liabilities were as follows (in thousands):

2019 (remaining three months)	\$ 364
2020	1,241
2021	634
2022	379
2023	22
Total remaining lease payments	2,640
Less: imputed interest	(132)
Total lease liabilities	<u>\$ 2,508</u>
<b>Reported as:</b>	
Current liabilities	\$ 1,318
Long-term liabilities	\$ 1,190

**Lessor**

The Company owns certain office buildings and leases a portion of these properties to third parties under arrangements that are classified as operating leases. These leases have remaining lease terms from two years to five years. Some of these leases include options to renew the lease term for up to five years.

For the three and nine months ended September 30, 2019, income related to lease payments was \$0.5 million and \$1.3 million, respectively. As of September 30, 2019, future income related to lease payments was as follows (in thousands):

2019 (remaining three months)	\$	279
2020		1,539
2021		1,384
2022		1,136
2023		602
2024 and beyond		597
<b>Total</b>	<b>\$</b>	<b><u>5,537</u></b>

**7. NET INCOME PER SHARE**

Basic net income per share is computed by dividing net income by the weighted-average number of common shares outstanding for the period. Diluted net income per share reflects the potential dilution that would occur if outstanding securities or other contracts to issue common stock were exercised or converted into common shares, and calculated using the treasury stock method. Contingently issuable shares, including equity awards with performance conditions or market conditions, are considered outstanding common shares and included in the basic net income per share as of the date that all necessary conditions to earn the awards have been satisfied. Prior to the end of the contingency period, the number of contingently issuable shares included in the diluted net income per share is based on the number of shares, if any, that would be issuable under the terms of the arrangement at the end of the reporting period.

The Company's outstanding RSUs contain forfeitable rights to receive cash dividend equivalents, which are accumulated and paid to the employees when the underlying RSUs vest. Dividend equivalents accumulated on the underlying RSUs are forfeited if the employees do not fulfill the requisite service requirement and the awards do not vest. Accordingly, these awards are not treated as participating securities in the net income per share calculation.

The following table sets forth the computation of basic and diluted net income per share (in thousands, except per-share amounts):

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Numerator:</b>				
Net income	<u>\$ 29,528</u>	<u>\$ 31,568</u>	<u>\$ 76,402</u>	<u>\$ 77,630</u>
<b>Denominator:</b>				
Weighted-average outstanding shares - basic	43,308	42,362	43,055	42,173
Effect of dilutive securities	2,525	2,307	2,461	2,277
Weighted-average outstanding shares - diluted	<u>45,833</u>	<u>44,669</u>	<u>45,516</u>	<u>44,450</u>
<b>Net income per share:</b>				
Basic	<u>\$ 0.68</u>	<u>\$ 0.75</u>	<u>\$ 1.77</u>	<u>\$ 1.84</u>
Diluted	<u>\$ 0.64</u>	<u>\$ 0.71</u>	<u>\$ 1.68</u>	<u>\$ 1.75</u>

**8. SEGMENT AND GEOGRAPHIC INFORMATION**

The Company operates in one reportable segment that includes the design, development, marketing and sale of high-performance analog solutions for the computing and storage, automotive, industrial, communications and consumer markets. The Company's chief operating decision maker is its Chief Executive Officer, who reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. The Company derives a majority of its revenue from sales to customers located outside North America, with geographic revenue based on the customers' ship-to locations.

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The Company sells its products primarily through third-party distributors and value-added resellers, and directly to original equipment manufacturers, original design manufacturers and electronic manufacturing service providers. The following table summarizes those customers with sales equal to 10% or more of the Company's total revenue, or with accounts receivable balances equal to 10% or more of the Company's total accounts receivable:

Customer	Revenue				Accounts Receivable	
	Three Months Ended September 30,		Nine Months Ended September 30,		September 30,	December 31,
	2019	2018	2019	2018	2019	2018
Company A (distributor)	24%	23%	23%	21%	25%	25%
Company B (distributor)	*	10%	*	10%	12%	16%
Company A (value-added reseller)	*	*	*	*	10%	*

\* Represents less than 10%.

The Company's agreements with these third-party distributors and value-added resellers were made in the ordinary course of business and may be terminated with or without cause by these customers with advance notice. Although the Company may experience a short-term disruption in the distribution of its products and a short-term decline in revenue if its agreement with any of these customers was terminated, the Company believes that such termination would not have a material adverse effect on its financial statements because it would be able to engage alternative distributors, resellers and other distribution channels to deliver its products to end customers within a short period following the termination of the agreement with the customer.

The following is a summary of revenue by geographic regions (in thousands):

Country or Region	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
China	\$ 105,857	\$ 91,509	\$ 276,892	\$ 245,580
Taiwan	18,547	20,774	55,912	55,315
Europe	12,047	12,579	38,071	36,696
Korea	11,990	11,406	31,224	30,046
Southeast Asia	7,904	11,259	23,698	28,261
Japan	8,150	6,895	21,084	18,994
United States	4,225	5,375	14,044	13,404
Other	93	178	258	589
Total	\$ 168,813	\$ 159,975	\$ 461,183	\$ 428,885

The following is a summary of revenue by product family (in thousands):

Product Family	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
DC to DC	\$ 159,723	\$ 147,727	\$ 432,125	\$ 394,492
Lighting Control	9,090	12,248	29,058	34,393
Total	\$ 168,813	\$ 159,975	\$ 461,183	\$ 428,885

The following is a summary of property and equipment, net, by geographic regions (in thousands):

Country	September 30, 2019	December 31, 2018
China	\$ 105,030	\$ 93,096
United States	93,967	39,054
Taiwan	16,750	16,972
Other	1,296	879
Total	\$ 217,043	\$ 150,001



**9. COMMITMENTS AND CONTINGENCIES**

***Product Warranties***

The following table presents changes in the warranty reserve (in thousands):

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Balance at beginning of period	\$ 1,748	\$ 3,951	\$ 4,564	\$ 2,416
Warranty provision for product sales	92	3,840	671	5,654
Settlements made	(326)	(36)	(2,625)	(100)
Unused warranty provision	(247)	(2,821)	(1,343)	(3,036)
Balance at end of period	<u>\$ 1,267</u>	<u>\$ 4,934</u>	<u>\$ 1,267</u>	<u>\$ 4,934</u>

***Purchase Commitments***

The Company has outstanding purchase commitments with its suppliers and other parties that require the future purchase of goods or services, which primarily consist of wafer purchases, assembly and other manufacturing services, construction services and license arrangements. As of September 30, 2019, the Company's outstanding purchase obligations totaled approximately \$70.9 million.

***Litigation***

The Company is a party to actions and proceedings in the ordinary course of business, including potential litigation initiated by its stockholders, challenges to the enforceability or validity of its intellectual property, claims that the Company's products infringe on the intellectual property rights of others, and employment matters. These proceedings often involve complex questions of fact and law and may require the expenditure of significant funds and the diversion of other resources to prosecute and defend. The Company defends itself vigorously against any such claims. As of September 30, 2019, there were no material pending legal proceedings to which the Company was a party.

**10. CASH, CASH EQUIVALENTS, INVESTMENTS AND RESTRICTED CASH**

The following is a summary of the Company's cash, cash equivalents and investments (in thousands):

	<b>September 30, 2019</b>	<b>December 31, 2018</b>
<b>Cash, cash equivalents and investments:</b>		
Cash	\$ 162,741	\$ 131,569
Money market funds	39,982	41,135
Corporate debt securities	195,667	170,909
U.S. treasuries and government agency bonds	20,350	32,068
Certificates of deposit	-	1,600
Auction-rate securities backed by student-loan notes	3,264	3,241
Total	<u>\$ 422,004</u>	<u>\$ 380,522</u>
	<b>September 30, 2019</b>	<b>December 31, 2018</b>
<b>Reported as:</b>		
Cash and cash equivalents	\$ 205,229	\$ 172,704
Short-term investments	213,511	204,577
Long-term investments	3,264	3,241
Total	<u>\$ 422,004</u>	<u>\$ 380,522</u>

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The contractual maturities of the Company's short-term and long-term available-for-sale investments are as follows (in thousands):

	September 30, 2019	December 31, 2018
Due in less than 1 year	\$ 142,336	\$ 125,845
Due in 1 - 5 years	71,175	78,732
Due in greater than 5 years	3,264	3,241
Total	<u>\$ 216,775</u>	<u>\$ 207,818</u>

The following tables summarize the unrealized gain and loss positions related to the Company's available-for sale investments (in thousands):

September 30, 2019					
	Amortized Cost	Unrealized Gains	Unrealized Losses	Total Fair Value	Fair Value of Investments in Unrealized Loss Position
Money market funds	\$ 39,982	\$ -	\$ -	\$ 39,982	\$ -
Corporate debt securities	195,471	324	(128)	195,667	83,247
U.S. treasuries and government agency bonds	20,341	11	(2)	20,350	7,998
Auction-rate securities backed by student-loan notes	3,445	-	(181)	3,264	3,264
Total	<u>\$ 259,239</u>	<u>\$ 335</u>	<u>\$ (311)</u>	<u>\$ 259,263</u>	<u>\$ 94,509</u>

December 31, 2018					
	Amortized Cost	Unrealized Gains	Unrealized Losses	Total Fair Value	Fair Value of Investments in Unrealized Loss Position
Money market funds	\$ 41,135	\$ -	\$ -	\$ 41,135	\$ -
Corporate debt securities	172,288	7	(1,386)	170,909	166,204
U.S. treasuries and government agency bonds	32,207	2	(141)	32,068	28,507
Certificates of deposit	1,600	-	-	1,600	-
Auction-rate securities backed by student-loan notes	3,570	-	(329)	3,241	3,241
Total	<u>\$ 250,800</u>	<u>\$ 9</u>	<u>\$ (1,856)</u>	<u>\$ 248,953</u>	<u>\$ 197,952</u>

As of September 30, 2019 and December 31, 2018, unrealized losses that had been in a continuous loss position for 12 months or longer were \$0.3 million and \$1.6 million, respectively. As of September 30, 2019, the Company did not consider any of its available-for-sale investments to be other-than-temporarily impaired.

**Restricted Cash**

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported on the Condensed Consolidated Balance Sheets to the amounts reported on the Condensed Consolidated Statements of Cash Flows (in thousands):

	September 30, 2019	December 31, 2018
Cash and cash equivalents	\$ 205,229	\$ 172,704
Restricted cash included in other current assets	1,161	-
Restricted cash included in other long-term assets	113	114
Total cash, cash equivalents and restricted cash reported on the Condensed Consolidated Statements of Cash Flows	<u>\$ 206,503</u>	<u>\$ 172,818</u>

As of September 30, 2019, restricted cash included amounts that are set aside for the liquidation of a wholly-owned foreign subsidiary and cannot be withdrawn by the Company under the local law. The restriction will end when the liquidation is complete. In addition, as of September 30, 2019 and December 31, 2018, restricted cash included a security deposit that is set aside in a bank account and cannot be withdrawn by the Company under the terms of a lease agreement. The restriction will end upon the expiration of the lease.

**11. FAIR VALUE MEASUREMENTS**

The following tables summarize the fair value measurement of the financial assets (in thousands):

	<b>Fair Value Measurement at September 30, 2019</b>			
	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Money market funds	\$ 39,982	\$ 39,982	\$ -	\$ -
Corporate debt securities	195,667	-	195,667	-
U.S. treasuries and government agency bonds	20,350	-	20,350	-
Auction-rate securities backed by student-loan notes	3,264	-	-	3,264
Mutual funds and money market funds under deferred compensation plan	19,968	19,968	-	-
<b>Total</b>	<b>\$ 279,231</b>	<b>\$ 59,950</b>	<b>\$ 216,017</b>	<b>\$ 3,264</b>

  

	<b>Fair Value Measurement at December 31, 2018</b>			
	<b>Total</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
Money market funds	\$ 41,135	\$ 41,135	\$ -	\$ -
Corporate debt securities	170,909	-	170,909	-
U.S. treasuries and government agency bonds	32,068	-	32,068	-
Certificates of deposit	1,600	-	1,600	-
Auction-rate securities backed by student-loan notes	3,241	-	-	3,241
Mutual funds and money market funds under deferred compensation plan	18,867	18,867	-	-
<b>Total</b>	<b>\$ 267,820</b>	<b>\$ 60,002</b>	<b>\$ 204,577</b>	<b>\$ 3,241</b>

- Level 1—includes instruments with quoted prices in active markets for identical assets.
- Level 2—includes instruments for which the valuations are based upon quoted market prices in active markets involving similar assets or inputs other than quoted prices that are observable for the assets. The market inputs used to value these instruments generally consist of market yields, recently executed transactions, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency. Pricing sources may include industry standard data providers, security master files from large financial institutions, and other third-party sources used to determine a daily market value.
- Level 3—includes instruments for which the valuations are based on inputs that are unobservable and significant to the overall fair value measurement.

The Company's level 3 assets consist of government-backed student loan auction-rate securities. The following table provides a rollforward of the fair value of the auction-rate securities (in thousands):

Balance at January 1, 2019	\$ 3,241
Change in unrealized gain included in other comprehensive income	148
Sale and settlement at par	(125)
Balance at September 30, 2019	<u>\$ 3,264</u>

The Company determined the fair value of the auction-rate securities using a discounted cash flow model with the following assumptions:

	<b>September 30, 2019</b>	<b>December 31, 2018</b>
Time-to-liquidity (in years)	2 - 3	2 - 3
Discount rate	3.7% - 7.9%	4.9% - 10.1%

## 12. DEFERRED COMPENSATION PLAN

The following table summarizes the deferred compensation plan balances on the Condensed Consolidated Balance Sheets (in thousands):

	September 30, 2019	December 31, 2018
Deferred compensation plan asset components:		
Cash surrender value of corporate-owned life insurance policies	\$ 16,429	\$ 13,103
Fair value of mutual funds and money market funds	19,968	18,867
Total	<u>\$ 36,397</u>	<u>\$ 31,970</u>
Deferred compensation plan assets reported in:		
Other long-term assets	<u>\$ 36,397</u>	<u>\$ 31,970</u>
Deferred compensation plan liabilities reported in:		
Accrued compensation and related benefits (short-term)	\$ 425	\$ 447
Other long-term liabilities	36,968	32,283
Total	<u>\$ 37,393</u>	<u>\$ 32,730</u>

## 13. INTEREST AND OTHER INCOME, NET

The components of interest and other income, net, are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Interest income	\$ 1,850	\$ 1,583	\$ 5,207	\$ 4,606
Amortization of premium on available-for-sale securities	(168)	(314)	(384)	(1,122)
Gain on deferred compensation plan investments	74	717	2,630	949
Foreign currency exchange gain	175	700	47	915
Other	326	28	327	39
Total	<u>\$ 2,257</u>	<u>\$ 2,714</u>	<u>\$ 7,827</u>	<u>\$ 5,387</u>

For the three and nine months ended September 30, 2019, "other" includes a \$0.7 million gain recognized from the sale of a parcel of land, net of certain capitalized costs and selling expenses.

## 14. INCOME TAXES

The income tax provision for interim periods is generally determined using an estimate of the Company's annual effective tax rate and adjusted for discrete items, if any, in the relevant period. Each quarter the estimate of the annual effective tax rate is updated, and if the Company's estimated tax rate changes, a cumulative adjustment is made.

The income tax expense for the three months ended September 30, 2019 was \$2.8 million, or 8.6% of pre-tax income. The income tax expense for the nine months ended September 30, 2019 was \$3.3 million, or 4.1% of pre-tax income. The effective tax rates differed from the federal statutory rate primarily due to foreign income from the Company's subsidiaries in Bermuda and China being taxed at lower statutory tax rates, and the benefit obtained from certain discrete items recognized in the periods, including excess tax benefits from stock-based compensation. The decrease in the effective tax rates relative to the federal statutory rate was partially offset by the inclusion of the global intangible low-taxed income ("GILTI") tax.

The income tax provision for the three months ended September 30, 2018 was \$4.6 million, or 12.8% of pre-tax income. The income tax provision for the nine months ended September 30, 2018 was \$8.2 million, or 9.5% of pre-tax income. The effective tax rates differed from the federal statutory rate primarily due to foreign income from the Company's subsidiaries in Bermuda and China being taxed at lower statutory tax rates, and the benefit obtained from certain discrete items recognized in the periods, including excess tax benefits from stock-based compensation. The decrease in the effective tax rates relative to the federal statutory rate was partially offset by the inclusion of the GILTI tax.

For the three and nine months ended September 30, 2019, the Company's effective tax rates included the estimated impact of \$13.0 million and \$38.5 million, respectively, related to the GILTI provisions that were included as additional subpart F income, which was accounted for as a period cost. For the three and nine months ended September 30, 2018, the Company's effective tax rates included the estimated impact of \$18.4 million and \$46.2 million, respectively, related to the GILTI provisions.

The Company's uncertain tax positions relate to the allocation of income and deductions between the Company's global entities and to the determination of the research and development tax credit. It is reasonably possible that over the next twelve-month period, the Company may experience increases or decreases in its unrecognized tax benefits. However, it is not possible to determine either the magnitude or the range of increases or decreases at this time.

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In July 2015, the U.S. Tax Court issued an opinion in *Altera Corp. v. Commissioner*, invalidating the Treasury regulations that require participants in qualified intercompany cost-sharing arrangements to share stock-based compensation costs. A final decision was issued by the Tax Court in December 2015, and the Internal Revenue Service (“IRS”) appealed the decision in June 2016. In June 2019, the U.S. Ninth Circuit Court of Appeals upheld the cost-sharing regulations. In July 2019, Altera filed a petition for rehearing en banc in the U.S. Ninth Circuit Court of Appeals. Due to the uncertainty surrounding the status of the current regulations, the Company has not recorded any adjustments as of September 30, 2019. The Company will continue to monitor and evaluate the impact of any new developments on its financial statements.

**15. ACCUMULATED OTHER COMPREHENSIVE LOSS**

The following table summarizes the changes in accumulated other comprehensive loss (in thousands):

	<b>Unrealized Gains (Losses) on Available-for-Sale Securities</b>	<b>Foreign Currency Translation Adjustments</b>	<b>Total</b>
Balance as of January 1, 2019	\$ (1,638)	\$ (3,905)	\$ (5,543)
Other comprehensive income before reclassifications	924	3,677	4,601
Tax effect	(98)	-	(98)
Other comprehensive income	826	3,677	4,503
Balance as of March 31, 2019	(812)	(228)	(1,040)
Other comprehensive income (loss) before reclassifications	675	(3,709)	(3,034)
Tax effect	(64)	-	(64)
Other comprehensive income (loss)	611	(3,709)	(3,098)
Balance as of June 30, 2019	(201)	(3,937)	(4,138)
Other comprehensive income (loss) before reclassifications	272	(6,135)	(5,863)
Tax effect	(38)	-	(38)
Other comprehensive income (loss)	234	(6,135)	(5,901)
Balance as of September 30, 2019	\$ 33	\$ (10,072)	\$ (10,039)

**16. DIVIDENDS AND DIVIDEND EQUIVALENTS**

**Cash Dividend Program**

In June 2014, the Board of Directors approved a dividend program pursuant to which the Company intends to pay quarterly cash dividends on its common stock. Based on the Company’s historical practice, stockholders of record as of the last business day of the quarter are entitled to receive the quarterly cash dividends when and if declared by the Board of Directors, which are payable to the stockholders in the following month. The Board of Directors declared the following cash dividends (in thousands, except per-share amounts):

	<b>Three Months Ended September 30,</b>		<b>Nine Months Ended September 30,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Dividend declared per share	\$ 0.40	\$ 0.30	\$ 1.20	\$ 0.90
Total amount	\$ 17,341	\$ 12,722	\$ 51,782	\$ 38,052

As of September 30, 2019 and December 31, 2018, accrued dividends totaled \$17.3 million and \$12.8 million, respectively.

The declaration of any future cash dividends is at the discretion of the Board of Directors and will depend on, among other things, the Company’s financial condition, results of operations, capital requirements, business conditions, and other factors that the Board of Directors may deem relevant, as well as a determination that cash dividends are in the best interests of the stockholders.

The Company anticipates that cash used for future dividend payments will come from its domestic cash, cash generated from ongoing U.S. operations, and cash repatriated from its Bermuda subsidiary. Earnings from other foreign subsidiaries will continue to be indefinitely reinvested.

**Cash Dividend Equivalent Rights**

Under the Company’s stock plans, outstanding RSUs contain rights to receive cash dividend equivalents, which entitle employees who hold RSUs to the same dividend value per share as holders of common stock. The dividend equivalents are accumulated and paid to the employees when the underlying RSUs vest. Dividend equivalents accumulated on the underlying RSUs are forfeited if the employees do not fulfill the requisite service requirement and the awards do not vest. As of September 30, 2019 and December 31, 2018, accrued dividend equivalents totaled \$10.6 million and \$8.4 million, respectively.

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

This Quarterly Report on Form 10-Q contains 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, that have been made pursuant to and in reliance on the provisions of the Private Securities Litigation Reform Act of 1995. These statements include, among others, statements concerning:

- the above-average industry growth of product and market areas that we have targeted,
- our plan to increase our revenue through the introduction of new products within our existing product families as well as in new product categories and families,
- our belief that we may incur significant legal expenses that vary with the level of activity in each of our current or future legal proceedings,
- the effect that liquidity of our investments has on our capital resources,
- the continuing application of our products in the computing and storage, automotive, industrial, communications and consumer markets,
- estimates of our future liquidity requirements,
- the cyclical nature of the semiconductor industry,
- protection of our proprietary technology,
- business outlook for the remainder of 2019 and beyond,
- the factors that we believe will impact our business, operations and financial condition, as well as our ability to achieve revenue growth,
- the percentage of our total revenue from various end markets,
- our ability to identify, acquire and integrate the companies, businesses and products that we acquire and achieve the anticipated benefits from such acquisitions,
- the impact of the U.S. Tax Cuts and Jobs Act enacted in December 2017 (the "2017 Tax Act") on our income tax provision, financial position and cash flows,
- our plan to repatriate cash from our subsidiary in Bermuda,
- our intention and ability to pay future cash dividends and dividend equivalents, and
- the factors that differentiate us from our competitors.

In some cases, words such as "would," "could," "may," "should," "predict," "potential," "targets," "continue," "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," "project," "forecast," "will," the negative of these terms or other variations of such terms and similar expressions relating to the future identify forward-looking statements. All forward-looking statements are based on our current outlook, expectations, estimates, projections, beliefs and plans or objectives about our business and our industry. These statements are not guarantees of future performance and are subject to risks and uncertainties. Actual events or results could differ materially and adversely from those expressed in any such forward-looking statements. Risks and uncertainties that could cause actual results to differ materially include those set forth throughout this Quarterly Report on Form 10-Q and, in particular, in the section entitled "Item 1A. Risk Factors." Except as required by law, we disclaim any duty to, and undertake no obligation to, update any forward-looking statements, whether as a result of new information relating to existing conditions, future events or otherwise or to release publicly the results of any future revisions we may make to forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Readers are cautioned not to place undue reliance on such statements, which speak only as of the date of this Quarterly Report on Form 10-Q. Readers should carefully review future reports and documents that we file from time to time with the SEC, such as our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and any Current Reports on Form 8-K.

**Overview**

We are a leading semiconductor company that designs, develops and markets high-performance power solutions. Incorporated in 1997, MPS's core strengths include deep system-level and applications knowledge, strong analog design expertise and an innovative proprietary process technology. These combined strengths enable MPS to deliver highly integrated monolithic products that offer energy-efficient, cost-effective, easy-to-use solutions for systems found in computing and storage, automotive, industrial, communications and consumer applications. Our mission is to reduce total energy consumption in our customers' systems with green, practical and compact solutions. We believe that we differentiate ourselves by offering solutions that are more highly integrated, smaller in size, more energy-efficient, more accurate with respect to performance specifications and, consequently, more cost-effective than many competing solutions. We plan to continue to introduce new products within our existing product families, as well as in new innovative product categories.

We operate in the cyclical semiconductor industry where there is seasonal demand for certain products. We are not immune from current and future industry downturns, but we have targeted product and market areas that we believe have the ability to offer above average industry performance over the long term.

We work with third parties to manufacture and assemble our integrated circuits ("ICs"). This has enabled us to limit our capital expenditures and fixed costs, while focusing our engineering and design resources on our core strengths.

Following the introduction of a product, our sales cycle generally takes a number of quarters after we receive an initial customer order for a new product to ramp up. Typical lead time for orders is fewer than 90 days. These factors, combined with the fact that orders in the semiconductor industry can typically be cancelled or rescheduled without significant penalty to the customer, make the forecasting of our orders and revenue difficult.

We derive most of our revenue from sales through distribution arrangements and direct sales to customers in Asia, where our products are incorporated into end-user products. Our revenue from direct or indirect sales to customers in Asia was 90% and 89% for the three months ended September 30, 2019 and 2018, respectively, and 89% and 88% for the nine months ended September 30, 2019 and 2018, respectively. We derive a majority of our revenue from the sales of our DC to DC converter products which serve the computing and storage, automotive, industrial, communications and consumer markets. We believe our ability to achieve revenue growth will depend, in part, on our ability to develop new products, enter new market segments, gain market share, manage litigation risk, diversify our customer base and continue to secure manufacturing capacity.

**Critical Accounting Policies and Estimates**

There have been no significant changes in our critical accounting policies and estimates used in the preparation of our financial statements during the three and nine months ended September 30, 2019, as compared to those disclosed in the Annual Report on Form 10-K for the year ended December 31, 2018.

**Results of Operations**

The table below sets forth the data on the Condensed Consolidated Statements of Operations as a percentage of revenue:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2019		2018		2019		2018	
	(in thousands, except percentages)							
Revenue	\$ 168,813	100.0%	\$ 159,975	100.0%	\$ 461,183	100.0%	\$ 428,885	100.0%
Cost of revenue	75,655	44.8	70,957	44.4	206,794	44.8	190,810	44.5
Gross profit	93,158	55.2	89,018	55.6	254,389	55.2	238,075	55.5
Operating expenses:								
Research and development	27,742	16.4	25,630	16.0	80,746	17.5	70,720	16.5
Selling, general and administrative	34,692	20.6	29,552	18.5	100,302	21.7	85,431	19.9
Litigation expense	692	0.4	343	0.2	1,473	0.4	1,513	0.4
Total operating expenses	63,126	37.4	55,525	34.7	182,521	39.6	157,664	36.8
Income from operations	30,032	17.8	33,493	20.9	71,868	15.6	80,411	18.7
Interest and other income, net	2,257	1.3	2,714	1.7	7,827	1.7	5,387	1.3
Income before income taxes	32,289	19.1	36,207	22.6	79,695	17.3	85,798	20.0
Income tax expense	2,761	1.6	4,639	2.9	3,293	0.7	8,168	1.9
Net income	\$ 29,528	17.5%	\$ 31,568	19.7%	\$ 76,402	16.6%	\$ 77,630	18.1%

## Revenue

The following table summarizes our revenue by end market:

End Market	Three Months Ended September 30,					Nine Months Ended September 30,				
	2019	% of Revenue	2018	% of Revenue	Change	2019	% of Revenue	2018	% of Revenue	Change
(in thousands, except percentages)										
Computing and storage	\$ 52,793	31.3%	\$ 47,658	29.8%	10.8%	\$ 133,571	29.0%	\$ 115,584	27.0%	15.6%
Automotive	24,432	14.5	19,785	12.4	23.5%	66,174	14.3	57,857	13.5	14.4%
Industrial	28,862	17.1	24,869	15.5	16.1%	72,640	15.8	61,544	14.3	18.0%
Communications	18,778	11.1	19,158	12.0	(2.0)%	62,928	13.6	50,442	11.8	24.8%
Consumer	43,948	26.0	48,505	30.3	(9.4)%	125,870	27.3	143,458	33.4	(12.3)%
Total	<u>\$ 168,813</u>	<u>100.0%</u>	<u>\$ 159,975</u>	<u>100.0%</u>	5.5%	<u>\$ 461,183</u>	<u>100.0%</u>	<u>\$ 428,885</u>	<u>100.0%</u>	7.5%

Revenue for the three months ended September 30, 2019 was \$168.8 million, an increase of \$8.8 million, or 5.5%, from \$160.0 million for the three months ended September 30, 2018. This increase was driven by higher sales in the automotive, industrial, and computing and storage markets. Overall unit shipments increased by 6% due to higher market demand, and average sales prices were essentially flat compared to the same period in 2018.

For the three months ended September 30, 2019, revenue from the automotive market increased \$4.6 million, or 23.5%, from the same period in 2018. This increase was primarily driven by higher sales of products for infotainment applications. Revenue from the industrial market increased \$4.0 million, or 16.1%, from the same period in 2018. This increase was primarily driven by higher sales in power source and security products. Revenue from the computing and storage market increased \$5.1 million, or 10.8%, from the same period in 2018. This increase was primarily driven by strength in the high-performance notebook market, which was partially offset by lower demand in the solid-state drive storage market. Revenue from the communications market decreased \$0.4 million, or 2.0%, from the same period in 2018. This decrease was primarily driven by lower demand for routers and wireless applications, partially offset by higher demand in infrastructure sales including 5G network. Revenue from the consumer market decreased \$4.6 million, or 9.4%, from the same period in 2018. This decrease was primarily due to a decrease in demand for high volume consumer-related products. This decrease was partially offset by higher demand for home appliance products.

Revenue for the nine months ended September 30, 2019 was \$461.2 million, an increase of \$32.3 million, or 7.5%, from \$428.9 million for the nine months ended September 30, 2018. This increase was driven by higher sales in all of our end markets except for the consumer market. Overall unit shipments increased by 12% due to higher market demand, and average sales prices decreased by approximately 2% from the same period in 2018.

For the nine months ended September 30, 2019, revenue from the communications market increased \$12.5 million, or 24.8%, from the same period in 2018. This increase was primarily driven by higher demand in infrastructure sales including 5G network. Revenue from the industrial market increased \$11.1 million, or 18.0%, from the same period in 2018. This increase was primarily driven by higher sales in power source and security products. Revenue from the computing and storage market increased \$18.0 million, or 15.6%, from the same period in 2018. This increase was primarily driven by strength in the high-performance notebook market, which was partially offset by lower demand in the solid-state drive storage market. Revenue from the automotive market increased \$8.3 million, or 14.4%, from the same period in 2018. This increase was primarily driven by higher sales of products for infotainment applications. Revenue from the consumer market decreased \$17.6 million, or 12.3%, from the same period in 2018. This decrease was primarily due to a decrease in demand for high volume consumer-related products, as well as lower sales from specialty lighting, chargers and gaming products. This decrease was partially offset by higher demand for mobile phone and home appliance products.



**Cost of Revenue and Gross Margin**

Cost of revenue primarily consists of costs incurred to manufacture, assemble and test our products, as well as warranty costs, inventory-related and other overhead costs, and stock-based compensation expenses.

	<b>Three Months Ended September 30,</b>		<b>Change</b>	<b>Nine Months Ended September 30,</b>		<b>Change</b>
	<b>2019</b>	<b>2018</b>		<b>2019</b>	<b>2018</b>	
	(in thousands, except percentages)					
Cost of revenue	\$ 75,655	\$ 70,957	6.6%	\$ 206,794	\$ 190,810	8.4%
As a percentage of revenue	44.8%	44.4%		44.8%	44.5%	
Gross profit	\$ 93,158	\$ 89,018	4.7%	\$ 254,389	\$ 238,075	6.9%
Gross margin	55.2%	55.6%		55.2%	55.5%	

Cost of revenue was \$75.7 million, or 44.8% of revenue, for the three months ended September 30, 2019, and \$71.0 million, or 44.4% of revenue, for the three months ended September 30, 2018. The \$4.7 million increase in cost of revenue was primarily due to a 6% increase in overall unit shipments and a 6% increase in the average direct cost of units shipped. The increase in cost of revenue was partially offset by a decrease in inventory write-downs and warranty expenses.

Gross margin was 55.2% for the three months ended September 30, 2019, compared with 55.6% for the three months ended September 30, 2018. The decrease in gross margin was primarily due to increased sales of lower margin products, which was partially offset by lower inventory write-downs and warranty expenses as a percentage of revenue.

Cost of revenue was \$206.8 million, or 44.8% of revenue, for the nine months ended September 30, 2019, and \$190.8 million, or 44.5% of revenue, for the nine months ended September 30, 2018. The \$16.0 million increase in cost of revenue was primarily due to a 12% increase in overall unit shipments and a 5% increase in the average direct cost of units shipped. The increase in cost of revenue was partially offset by a decrease in inventory write-downs and warranty expenses.

Gross margin was 55.2% for the nine months ended September 30, 2019, compared with 55.5% for the nine months ended September 30, 2018. The decrease in gross margin was primarily due to increased sales of lower margin products, which was partially offset by lower inventory write-downs and warranty expenses as a percentage of revenue.

**Research and Development**

Research and development (“R&D”) expenses primarily consist of salary and benefit expenses, bonuses, stock-based compensation and deferred compensation for design and product engineers, expenses related to new product development and supplies, and facility costs.

	<b>Three Months Ended September 30,</b>		<b>Change</b>	<b>Nine Months Ended September 30,</b>		<b>Change</b>
	<b>2019</b>	<b>2018</b>		<b>2019</b>	<b>2018</b>	
	(in thousands, except percentages)					
R&D expenses	\$ 27,742	\$ 25,630	8.2%	\$ 80,746	\$ 70,720	14.2%
As a percentage of revenue	16.4%	16.0%		17.5%	16.5%	

R&D expenses were \$27.7 million, or 16.4% of revenue, for the three months ended September 30, 2019, and \$25.6 million, or 16.0% of revenue, for the three months ended September 30, 2018. The \$2.1 million increase in R&D expenses was primarily due to an increase of \$1.1 million in compensation expenses, which include salary, benefits and bonuses, and an increase of \$1.0 million in stock-based compensation expenses, which were mainly associated with performance-based equity awards. These increases were partially offset by a decrease of \$0.2 million in expenses related to changes in the value of the deferred compensation plan liabilities. Our R&D headcount was 819 employees as of September 30, 2019, compared with 692 employees as of September 30, 2018.

R&D expenses were \$80.7 million, or 17.5% of revenue, for the nine months ended September 30, 2019, and \$70.7 million, or 16.5% of revenue, for the nine months ended September 30, 2018. The \$10.0 million increase in R&D expenses was primarily due to an increase of \$4.1 million in compensation expenses, which include salary, benefits and bonuses, an increase of \$2.6 million in stock-based compensation expenses, which were mainly associated with performance-based equity awards, an increase of \$1.7 million in new product development expenses, and an increase of \$0.7 million in expenses related to changes in the value of the deferred compensation plan liabilities.

**Selling, General and Administrative**

Selling, general and administrative (“SG&A”) expenses primarily include salary and benefit expenses, bonuses, stock-based compensation and deferred compensation for sales, marketing and administrative personnel, sales commissions, travel expenses, facilities costs, and professional service fees.

	<b>Three Months Ended September 30,</b>			<b>Nine Months Ended September 30,</b>		
	<b>2019</b>	<b>2018</b>	<b>Change</b>	<b>2019</b>	<b>2018</b>	<b>Change</b>
	(in thousands, except percentages)					
SG&A expenses	\$ 34,692	\$ 29,552	17.4%	\$ 100,302	\$ 85,431	17.4%
As a percentage of revenue	20.6%	18.5%		21.7%	19.9%	

SG&A expenses were \$34.7 million, or 20.6% of revenue, for the three months ended September 30, 2019, and \$29.6 million, or 18.5% of revenue, for the three months ended September 30, 2018. The \$5.1 million increase in SG&A expenses was primarily due to an increase of \$5.3 million in stock-based compensation expenses, which were mainly associated with performance-based equity awards, and an increase of \$0.5 million in compensation expenses, which include salary, benefits and bonuses. These increases were partially offset by a decrease of \$0.4 million in expenses related to changes in the value of the deferred compensation plan liabilities. Our SG&A headcount was 488 employees as of September 30, 2019, compared with 424 employees as of September 30, 2018.

SG&A expenses were \$100.3 million, or 21.7% of revenue, for the nine months ended September 30, 2019, and \$85.4 million, or 19.9% of revenue, for the nine months ended September 30, 2018. The \$14.9 million increase in SG&A expenses was primarily due to an increase of \$11.2 million in stock-based compensation expenses, which were mainly associated with performance-based equity awards, an increase of \$2.1 million in compensation expenses, which include salary, benefits and bonuses, and an increase of \$0.9 million in expenses related to changes in the value of the deferred compensation plan liabilities.

**Litigation Expense**

Litigation expense was \$0.7 million for the three months ended September 30, 2019, compared with \$0.3 million for the three months ended September 30, 2018. Litigation expense was \$1.5 million for the nine months ended September 30, 2019, compared with \$1.5 million for the nine months ended September 30, 2018. Litigation expense for these periods was primarily attributable to an ongoing lawsuit in which we are the plaintiff.

**Interest and Other Income, Net**

Interest and other income, net, was \$2.3 million for the three months ended September 30, 2019, compared with \$2.7 million for the three months ended September 30, 2018. The decrease was primarily due to a decrease of \$0.6 million in income related to changes in the value of the deferred compensation plan investments and a decrease of \$0.5 million in foreign currency exchange gains. These unfavorable changes were partially offset by a \$0.7 million gain from the sale of a parcel of land, net of certain capitalized costs and selling expenses, and an increase of \$0.3 million in interest income as a result of higher investment balances and yields.

Interest and other income, net, was \$7.8 million for the nine months ended September 30, 2019, compared with \$5.4 million for the nine months ended September 30, 2018. The increase was primarily due to an increase of \$1.7 million in income related to changes in the value of the deferred compensation plan investments, a \$0.7 million gain from the sale of a parcel of land, net of certain capitalized costs and selling expenses, and an increase of \$0.6 million in interest income as a result of higher investment balances and yields. These favorable changes were partially offset by a decrease of \$0.9 million in foreign currency exchange gains.

**Income Tax Expense**

The income tax provision for interim periods is generally determined using an estimate of our annual effective tax rate and adjusted for discrete items, if any, in the relevant period. Each quarter the estimate of the annual effective tax rate is updated, and if our estimated tax rate changes, a cumulative adjustment is made.

The income tax expense for the three months ended September 30, 2019 was \$2.8 million, or 8.6% of pre-tax income. The income tax expense for the nine months ended September 30, 2019 was \$3.3 million, or 4.1% of pre-tax income. The effective tax rates differed from the federal statutory rate primarily due to foreign income from our subsidiaries in Bermuda and China being taxed at lower statutory tax rates, and the benefit obtained from certain discrete items recognized in the periods, including excess tax benefits from stock-based compensation. The decrease in the effective tax rates relative to the federal statutory rate was partially offset by the inclusion of the GILTI tax.

The income tax provision for the three months ended September 30, 2018 was \$4.6 million, or 12.8% of pre-tax income. The income tax provision for the nine months ended September 30, 2018 was \$8.2 million, or 9.5% of pre-tax income. The effective tax rates differed from the federal statutory rate primarily due to foreign income from our subsidiaries in Bermuda and China being taxed at lower statutory tax rates, and the benefit obtained from certain discrete items recognized in the periods, including excess tax benefits from stock-based compensation. The decrease in the effective tax rates relative to the federal statutory rate was partially offset by the inclusion of the GILTI tax.

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For the three and nine months ended September 30, 2019, our effective tax rates included the estimated impact of \$13.0 million and \$38.5 million, respectively, related to the GILTI provisions that were included as additional subpart F income, which was accounted for as a period cost. For the three and nine months ended September 30, 2018, our effective tax rates included the estimated impact of \$18.4 million and \$46.2 million, respectively, related to the GILTI provisions.

**Liquidity and Capital Resources**

	<b>September 30, 2019</b>	<b>December 31, 2018</b>
	(in thousands, except percentages)	
Cash and cash equivalents	\$ 205,229	\$ 172,704
Short-term investments	213,511	204,577
<b>Total cash, cash equivalents and short-term investments</b>	<b>\$ 418,740</b>	<b>\$ 377,281</b>
Percentage of total assets	45.7%	47.6%
<b>Total current assets</b>	<b>\$ 629,295</b>	<b>\$ 580,810</b>
<b>Total current liabilities</b>	<b>(105,026)</b>	<b>(80,439)</b>
Working capital	<b>\$ 524,269</b>	<b>\$ 500,371</b>

As of September 30, 2019, we had cash and cash equivalents of \$205.2 million and short-term investments of \$213.5 million, compared with cash and cash equivalents of \$172.7 million and short-term investments of \$204.6 million as of December 31, 2018. As of September 30, 2019, \$141.5 million of cash and cash equivalents and \$124.0 million of short-term investments were held by our international subsidiaries. For the nine months ended September 30, 2019, we repatriated \$75 million of cash from our Bermuda subsidiary to the U.S. The proceeds were primarily used to fund real estate purchases and cash dividend payments. We may repatriate additional cash from our Bermuda subsidiary to fund our expenditures in future periods. We anticipate that earnings from other foreign subsidiaries will continue to be indefinitely reinvested.

The significant components of our working capital are cash and cash equivalents, short-term investments, accounts receivable, inventories and other current assets, reduced by accounts payable, accrued compensation and related benefits, and other accrued liabilities. As of September 30, 2019, we had working capital of \$524.3 million, compared with working capital of \$500.4 million as of December 31, 2018. The \$23.9 million increase in working capital was due to a \$48.5 million increase in current assets, which was partially offset by a \$24.6 million increase in current liabilities. The increase in current assets was primarily due to an increase in cash and cash equivalents, short-term investments and other current assets. The increase in current liabilities was primarily due to an increase in accounts payable, accrued compensation and related benefits and other accrued liabilities.

*Summary of Cash Flows*

The following table summarizes our cash flow activities:

	<b>Nine Months Ended September 30,</b>	
	<b>2019</b>	<b>2018</b>
	(in thousands)	
Net cash provided by operating activities	\$ 155,317	\$ 93,861
Net cash used in investing activities	(88,109)	(21,795)
Net cash used in financing activities	(31,007)	(21,669)
Effect of change in exchange rates	(2,516)	(2,062)
<b>Net increase in cash, cash equivalents and restricted cash</b>	<b>\$ 33,685</b>	<b>\$ 48,335</b>

For the nine months ended September 30, 2019, net cash provided by operating activities was \$155.3 million, primarily due to our net income adjusted for certain non-cash items, including depreciation and amortization and stock-based compensation, and a net increase of \$10.6 million from the changes in our operating assets and liabilities. The decrease in income tax liabilities was primarily due to income tax payments made for the year, including the annual deemed repatriation transition tax. The increase in other accrued liabilities was primarily driven by an increase in employee contributions to the deferred compensation plan and an increase in operating lease liabilities. For the nine month ended September 30, 2018, net cash provided by operating activities was \$93.9 million, primarily due to our net income adjusted for certain non-cash items, including depreciation and amortization and stock-based compensation, and a net decrease of \$41.9 million from the changes in our operating assets and liabilities. The increase in accounts receivable was primarily driven by increased sales and the timing of shipments in the last month of the quarter. The increase in inventories was primarily driven by an increase in strategic wafer and die inventories as well as an increase in finished goods to meet current demand and future growth. The increase in accounts payable was primarily driven by increased inventory and capital asset purchases to meet future demand.

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For the nine months ended September 30, 2019, net cash used in investing activities was \$88.1 million, primarily due to purchases of property and equipment of \$87.1 million, which included the purchase of a building and land in Kirkland, Washington for \$52.3 million, net purchases of short-term investments of \$7.6 million and net contributions to the deferred compensation plan of \$1.8 million. These cash outflows were partially offset by proceeds from sales of property and equipment of \$9.3 million. For the nine months ended September 30, 2018, net cash used in investing activities was \$21.8 million, primarily due to purchases of property and equipment of \$18.1 million, net purchases of short-term investments of \$2.3 million, and net contributions to the deferred compensation plan of \$1.4 million.

For the nine months ended September 30, 2019, net cash used in financing activities was \$31.0 million, primarily reflecting \$48.6 million used to pay dividends to our stockholders and dividend equivalents to our employees who hold RSUs, which was partially offset by \$17.8 million of cash proceeds from the vesting of RSUs and the issuance of shares through our employee stock purchase plan. For the nine months ended September 30, 2018, net cash used in financing activities was \$21.7 million, primarily reflecting \$34.4 million used to pay dividends to our stockholders and dividend equivalents to our employees who hold RSUs, which was partially offset by \$12.7 million of cash proceeds from the vesting of RSUs and the issuance of shares through our employee stock purchase plan.

We anticipate that cash used for future dividends and dividend equivalent payments, as well as payments for the one-time deemed repatriation transition tax and other expenditures, will come from our domestic cash, cash generated from ongoing U.S. operations, and cash repatriated from our Bermuda subsidiary. Earnings from other foreign subsidiaries will continue to be indefinitely reinvested.

Although cash requirements will fluctuate based on the timing and extent of many factors such as those discussed above, we believe that cash generated from operations, together with the liquidity provided by existing cash balances and short-term investments, will be sufficient to satisfy our liquidity requirements for the next 12 months.

In the future, in order to strengthen our financial position, respond to changes in our circumstance or unforeseen events or conditions, or fund our growth, we may need to discontinue paying dividends and dividend equivalents, and may need to raise additional funds by any one or a combination of the following: issuing equity securities, issuing debt or convertible debt securities, incurring indebtedness secured by our assets, or selling certain product lines and/or portions of our business. Accordingly, we cannot ensure that we will continue to pay dividends and dividend equivalents in the future, and there can be no guarantee that we will be able to raise additional funds on terms acceptable to us, or at all.

From time to time, we have engaged in discussions with third parties concerning potential acquisitions of product lines, technologies, businesses and companies, and we continue to consider potential acquisition candidates. Any such transactions could involve the issuance of a significant number of new equity securities, assumptions of debt, and/or payment of cash consideration. We may also be required to raise additional funds to complete any such acquisitions, through either the issuance of equity and debt securities or incurring indebtedness secured by our assets. If we raise additional funds or acquire businesses or technologies through the issuance of equity securities or convertible debt securities, our existing stockholders may experience significant dilution.

***Contractual Obligations***

Our outstanding purchase commitments primarily consist of wafer purchases, assembly and other manufacturing services, construction services and license arrangements. As of September 30, 2019, the outstanding balance under our purchase commitments was \$70.9 million, compared with \$61.4 million as of December 31, 2018.

Under the 2017 Tax Act, we have a transition tax liability which represents a one-time, mandatory deemed repatriation tax imposed on previously deferred foreign earnings. As permitted by the 2017 Tax Act, we elected to pay the tax liability in installments on an interest-free basis through 2025. As of September 30, 2019, the outstanding liability was \$20.7 million, compared with \$22.1 million as of December 31, 2018.

Our long-term obligations include long-term liabilities reflected on our Condensed Consolidated Balance Sheets, which primarily consist of the deferred compensation plan liabilities and accrued dividend equivalents. As of September 30, 2019, the outstanding obligations were \$44.3 million, compared with \$38.5 million as of December 31, 2018.

Our other contractual obligations have not changed significantly from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

## **Off-Balance Sheet Arrangements**

As of September 30, 2019, we had no off-balance sheet arrangements as defined in Item 303(a)(4) of the SEC's Regulation S-K.

## **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

For a discussion of market risks, refer to Item 7A, "Quantitative and Qualitative Disclosures about Market Risk" in our Annual Report on Form 10-K for the year ended December 31, 2018. During the three and nine months ended September 30, 2019, there were no material changes or developments that would materially alter the market risk assessment performed as of December 31, 2018.

## **ITEM 4. CONTROLS AND PROCEDURES**

### **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 pursuant to Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934 as of the end of the period covered by this Quarterly Report on Form 10-Q.

Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2019, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in 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, as appropriate, to allow timely decisions regarding required disclosure.

### **Changes in Internal Control over Financial Reporting**

Effective January 1, 2019, we adopted ASU No. 2016-02, *Leases (Topic 842)*. We have implemented additional business processes and control activities, primarily related to the analysis of lease contracts, recognition of the right-of-use assets and lease liabilities, and presentation and disclosure, in order to monitor and maintain appropriate controls over financial reporting. There were no other changes in our internal control over financial reporting that occurred during the quarter ended September 30, 2019, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### **Limitations on Effectiveness of Controls and Procedures**

In designing and evaluating the disclosure controls and procedures, management recognizes that any set of controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

## **PART II. OTHER INFORMATION**

### **ITEM 1. LEGAL PROCEEDINGS**

We are a party to actions and proceedings in the ordinary course of business, including potential litigation initiated by our stockholders, challenges to the enforceability or validity of our intellectual property, claims that our products infringe on the intellectual property rights of others, and employment matters. These proceedings often involve complex questions of fact and law and may require the expenditure of significant funds and the diversion of other resources to prosecute and defend. We defend ourselves vigorously against any such claims. As of September 30, 2019, there were no material pending legal proceedings to which we were a party.

### **ITEM 1A. RISK FACTORS**

Our business involves numerous risks and uncertainties. You should carefully consider the risks described below, together with all of the other information in this Quarterly Report on Form 10-Q and other filings with the SEC in evaluating our business. If any of the following risks actually occur, our business, financial condition, operating results, and growth prospects would likely be materially and adversely affected. In such an event, the trading price of our common stock could decline, and you could lose all or part of your investment in our common stock. Our past financial performance should not be considered to be a reliable indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods. These risks involve forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements.

**The future trading price of our common stock could be subject to wide fluctuations in response to a variety of factors.**

The future trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, many of which are beyond our control, including:

- actual or anticipated results of operations and financial performance;
- general economic, industry and market conditions worldwide;
- our ability to outperform the market, and outperform at a level that meets or exceeds our investors' expectations;
- whether our guidance meets the expectations of our investors;
- the breadth and liquidity of the market for our common stock;
- developments generally affecting the semiconductor industry;
- commencement of or developments relating to our involvement in litigation;
- investor perceptions of us and our business strategies;
- changes in securities analysts' expectations or our failure to meet those expectations;
- actions by institutional or other large stockholders;
- terrorist acts or acts of war;
- trading activity in our common stock, including short positions;
- actual or anticipated manufacturing capacity limitations;
- developments with respect to intellectual property rights;
- introduction of new products by us or our competitors;
- our sale of common stock or other securities in the future;
- conditions and trends in technology industries;
- our loss of key customers;
- changes in market valuation or earnings of our competitors;
- any mergers, acquisitions or divestitures of assets undertaken by us;
- government debt default;
- government policies and regulations on corporate taxes, including the impact of the 2017 Tax Act;
- government policies and regulations on international trade policies and restrictions, including tariffs on imports of foreign goods;
- export controls and trade and economic sanctions and regulations and other regulatory or contractual limitations on our ability to sell or develop our products in certain foreign markets, particularly in China;
- our ability to obtain governmental licenses and approvals for international trading activities or technology transfers, including export licenses;

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- our ability to develop new products, enter new market segments, gain market share, manage litigation risk, diversify our customer base and successfully secure manufacturing capacity;
- our ability to increase our gross margins;
- market reactions to guidance from other semiconductor companies or third-party research groups;
- market reactions to merger and acquisition activities in the semiconductor industry, and rumors or expectations of further consolidation in the industry;
- investments in sales and marketing resources to enter new markets;
- costs of increasing wafer capacity and qualifying additional third-party wafer fabrication facilities;
- our ability to pay quarterly cash dividends to stockholders; and
- changes in the estimation of the future size and growth rate of our markets.

In addition, the stock market often experiences substantial volatility that may be unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock.

**We expect our operating results to fluctuate from quarter to quarter and year over year, which may make it difficult to predict our future performance and could cause our stock price to decline and be volatile.**

Our revenue, expenses, and results of operations are difficult to predict, have varied significantly in the past and will continue to fluctuate significantly in the future due to a number of factors, many of which are beyond our control. We expect fluctuations to continue for a number of reasons, including:

- changes in general demand for electronic products as a result of worldwide macroeconomic conditions;
- changes in business conditions at our distributors, value-added resellers and/or end-customers;
- changes in general economic conditions in the countries where our products are sold or used;
- adverse changes in laws and government regulations, such as tariffs on imports of foreign goods, export regulations and export classifications, including in foreign countries where we have offices or operations;
- the timing of developments and related expenses in our litigation matters;
- the loss of key customers or our inability to attract new customers due to customer and prospective customer concerns about being litigation targets;
- continued dependence on turns business (orders received and shipped within the same fiscal quarter);
- continued dependence on the Asian markets for our customer base;
- increases in assembly costs due to commodity price increases, such as the price of gold;
- the timing of new product introductions by us and our competitors;
- changes in our revenue mix between original equipment manufacturers (“OEMs”), original design manufacturers (“ODMs”), distributors and value-added resellers;
- changes in product mix, product returns, and actual and potential product liability;
- the acceptance of our new products in the marketplace;
- our ability to develop new process technologies and achieve volume production;
- our ability to meet customer product demand in a timely manner;

- the scheduling, rescheduling, or cancellation of orders by our customers;
- the cyclical nature of demand for our customers' products;
- fluctuations in our estimate for stock rotation reserves;
- our ability to manage our inventory levels, including the levels of inventory held by our distributors;
- product obsolescence;
- seasonality and variability in the computing and storage, automotive, industrial, communications and consumer markets;
- the availability of adequate manufacturing capacity from our outside suppliers;
- increases in prices for finished wafers due to general capacity shortages;
- the potential loss of future business resulting from capacity issues;
- changes in manufacturing yields;
- movements in foreign exchange rates, interest rates or tax rates;
- the impact of the 2017 Tax Act on our income tax provision and cash flows;
- the impact of tariffs on imports of foreign goods; and
- stock-based compensation charges primarily resulting from performance and market-based equity awards granted to our employees.

Due to the factors noted above and other risks described in this section, many of which are beyond our control, you should not rely on quarter-to-quarter or year-over-year comparisons to predict our future financial performance. Unfavorable changes in any of the above factors may seriously harm our business and results of operations, and may cause our stock price to decline and be volatile.

**Our business has been and may be significantly impacted by worldwide economic conditions, in particular changing economic conditions in China.**

In recent years, global credit and financial markets experienced disruptions, and may experience disruptions in the future, including diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. Economic uncertainty affects businesses such as ours in a number of ways, making it difficult to accurately forecast and plan our future business activities. The tightening of credit in financial markets may lead consumers and businesses to postpone spending, which may cause our customers to cancel, decrease or delay their existing and future orders with us. In addition, financial difficulties experienced by our suppliers or distributors could result in product delays, increased accounts receivable defaults and inventory challenges. Volatility in the credit markets could severely diminish liquidity and capital availability.

Demand for our products is a function of the health of the economies in the United States, Europe, China and the rest of Asia. We cannot predict the timing, strength or duration of any economic disruption or subsequent economic recovery worldwide, in the United States, in our industry, or in the different markets that we serve. These and other economic factors have had, and may in the future have, a material adverse effect on demand for our products and on our financial condition and operating results.

In particular, since we have significant operations in China, our business development plans, results of operations and financial condition may be materially adversely affected by significant political, social and economic developments in China. A slowdown in economic growth in China could adversely impact our customers, prospective customers, suppliers, distributors and partners in China, which could have a material adverse effect on our results of the operations and financial condition. There is no guarantee that economic downturns, whether actual or perceived, any further decrease in economic growth rates or an otherwise uncertain economic outlook in China will not occur or persist in the future, that they will not be protracted or that governments will respond adequately to control and reverse such conditions, any of which could materially and adversely affect our business, financial condition and results of operations.



**Recent changes in international trade policy and rising concern of international tariffs, including tariffs applied to goods traded between the United States and China, could materially and adversely affect our business and results of operations.**

Since the beginning of 2018, there has been increasing rhetoric, in some cases coupled with legislative or executive action, from several U.S. and foreign leaders regarding tariffs against foreign imports of certain materials. More specifically, there have been several rounds of U.S. tariffs on Chinese goods taking effect in 2018 and 2019, some of which prompted retaliatory Chinese tariffs on U.S. goods. The institution of trade tariffs both globally and between the U.S. and China specifically carries the risk of negatively affecting China's overall economic condition, which could have a negative impact on us as we have significant operations in China. Furthermore, imposition of tariffs could cause a decrease in the sales of our products to customers located in China or other customers selling to Chinese end users, which would directly impact our business and operating results.

**We are subject to export restrictions and laws affecting trade and investments that could materially and adversely affect our business and results of operations.**

As a global company headquartered in the U.S., we are subject to U.S. laws and regulations that could limit and restrict the export of some of our products and services and may restrict our transactions with certain customers, business partners and other persons, including, in certain cases, dealings with or between our employees and subsidiaries. In certain circumstances, export control and economic sanctions regulations may prohibit the export of certain products, services and technologies, and in other circumstances we may be required to obtain an export license before exporting the controlled item. Compliance with these laws and regulations has not materially limited our operations or our sales, but could materially limit them in the future which would materially and adversely affect our business and results of operations. We maintain an export compliance program but there are risks that the compliance controls could be circumvented, exposing us to legal liabilities. We must also comply with export restrictions and laws imposed by other countries affecting trade and investments. Although these restrictions and laws have not materially restricted our operations in the recent past, there is a significant risk that they could do so in the future, which would materially and adversely affect our business and results of operations. In addition, U.S. laws and regulations and sanctions or threat of sanctions that could limit and restrict the export of some of our products and services to our customers may also encourage our customers to develop their own solutions to replace our products or seek to obtain a greater supply of similar or substitute products from our competitors that are not subject to these restrictions, which could materially and adversely affect our results of operations.

Moreover, U.S. government's actions targeting exports of certain technologies to China are becoming more pervasive. For example, in May 2019, President Trump issued an executive order that invoked national emergency economic powers to implement a framework to regulate the acquisition or transfer of information communications technology in transactions that imposed undue national security risks. These actions could lead to additional restrictions on the export of products that include or enable certain technologies, including products we provide to China-based customers.

**The highly cyclical nature of the semiconductor industry, which has produced significant and sometimes prolonged downturns, could materially adversely affect our operating results, financial condition and cash flows.**

Historically, the semiconductor industry has been highly cyclical and, at various times, has experienced significant downturns and wide fluctuations in supply and demand. The semiconductor industry is currently experiencing such a downturn. These conditions have caused significant variances in product demand and production capacity, as well as rapid erosion of average selling prices. The industry may experience severe or prolonged downturns in the future, which could result in downward pressure on the price of our products as well as lower demand for our products. Because significant portions of our expenses are fixed in the short term or incurred in advance of anticipated sales, we may not be able to decrease our expenses in a timely manner to offset any sales shortfall. Any significant or prolonged downturns could have a material adverse effect on our operating results, financial condition and cash flows.

**We may not be profitable on a quarterly or annual basis.**

Our profitability is dependent on many factors, including:

- our sales, which because of our turns business, are difficult to accurately forecast;
- the cancellation or rescheduling of our customers' orders, which may occur without significant penalty to our customers;
- changes in general demand for electronic products as a result of worldwide macroeconomic conditions;
- changes in revenue mix between OEMs, ODMs, distributors and value-added resellers;
- changes in product mix, and actual and potential product liability;

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- changes in revenue mix between end market segments (i.e. computing and storage, automotive, industrial, communications and consumer);
- our competition, which could adversely impact our selling prices and our potential sales;
- our manufacturing costs, including our ability to negotiate with our vendors and our ability to efficiently run our test facility in China;
- manufacturing capacity constraints;
- level of activity in our legal proceedings, which could result in significant legal expenses;
- the impact of the 2017 Tax Act on our income tax provision, financial condition and cash flows;
- the impact of laws and government regulations, such as tariffs on imports of foreign goods or regulations restricting the export of goods and services between the U.S. and China;
- stock-based compensation charges primarily resulting from performance and market-based equity awards granted to our employees; and
- our operating expenses, including general and administrative expenses, selling and marketing expenses, and research and development expenses relating to products that will not be introduced and will not generate revenue until later periods, if at all.

We may not achieve profitability on a quarterly or annual basis in the future. Unfavorable changes in our operations, including any of the factors noted above, may have a material adverse effect on our quarterly or annual profitability.

**We may not experience growth rates comparable to past years.**

In the past, our revenue increased significantly in certain years due to increased sales of certain of our products. We are subject to numerous risks and factors that could cause a decrease in our growth rates compared to past periods, including increased competition, loss of certain of our customers, unfavorable changes in our operations, reduced global electronics demand, a deterioration in market conditions, end-customer market downturn, market acceptance and penetration of our current and future products and litigation. A material decrease in our growth rates could adversely affect our stock price and results of operations.

**We may be unsuccessful in developing and selling new products with margins similar to or better than what we have experienced in the past, which would impact our overall gross margin and financial performance.**

Our success depends on products that are differentiated in the market, which result in gross margins that have historically been above industry averages. Should we fail to improve our gross margin in the future, and accordingly develop and introduce sufficiently differentiated products that result in higher gross margins than industry averages, our financial condition and results of operations could be materially and adversely affected.

**Industry consolidation may lead to increased competition and may harm our operating results.**

In recent years, there has been a trend toward semiconductor industry consolidation. We expect this trend to continue as companies attempt to improve the leverage of growing research and development costs, strengthen or hold their market positions in an evolving industry, or become unable to continue operations unless they find an acquirer or consolidate with another company. In addition, companies that are strategic alliance partners in some areas of our business may acquire or form alliances with our competitors, thereby reducing their business with us. We believe that semiconductor industry consolidation may result in stronger competitors that are better able to compete as sole-source vendors for customers. This could lead to more variability in our operating results and could have a material adverse effect on our business, operating results and financial condition.

**If demand for our products declines in the major end markets that we serve, our revenue will decrease and our results of operations and financial condition would be materially and adversely affected.**

We believe that the application of our products in the computing and storage, automotive, industrial, communications and consumer markets will continue to account for the majority of our revenue. If the demand for our products declines in the major end markets that we serve, our revenue will decrease and our results of operations and financial condition would be materially and adversely affected. In addition, as technology evolves, the ability to integrate the functionalities of various components, including our discrete semiconductor products, onto a single chip and/or onto other components of systems containing our products increases. Should our customers require integrated solutions that we do not offer, demand for our products could decrease, and our business and results of operations would be materially and adversely affected.

**We may be unsuccessful in developing and selling new products or in penetrating new markets required to maintain or expand our business.**

Our competitiveness and future success depend on our ability to design, develop, manufacture, assemble, test, market, and support new products and enhancements on a timely and cost-effective basis. A fundamental shift in technologies in any of our product markets could have a material adverse effect on our competitive position within these markets. Our failure to timely develop new technologies or to react quickly to changes in existing technologies could materially delay our development of new products, which could result in product obsolescence, decreased revenue, and/or a loss of market share to competitors.

As we develop new product lines, we must adapt to market conditions that are unfamiliar to us, such as competitors and distribution channels that are different from those we have known in the past. Some of our new product lines require us to re-equip our labs to test parameters we have not tested in the past. If we are unable to adapt rapidly to these new and additional conditions, we may not be able to successfully penetrate new markets.

The success of a new product depends on accurate forecasts of long-term market demand and future technological developments, as well as on a variety of specific implementation factors, including:

- timely and efficient completion of process design and device structure improvements;
- timely and efficient implementation of manufacturing, assembly, and test processes;
- the ability to secure and effectively utilize fabrication capacity in different geometries;
- product performance;
- product availability;
- product quality and reliability; and
- effective marketing, sales and service.

To the extent that we fail to timely introduce new products or to quickly penetrate new markets, our revenue and financial condition could be materially adversely affected.

**We may face competition from customers developing products internally.**

Our customers generally have substantial technological capabilities and financial resources. Some customers have traditionally used these resources to develop their own products internally. The future prospects for our products in these markets are dependent in part upon our customers' acceptance of our products as an alternative to their internally developed products. Future sales prospects also are dependent upon acceptance of third-party sourcing for products as an alternative to in-house development. Customers may in the future continue to use internally developed components. They also may decide to develop or acquire components, technologies or products that are similar to, or that may be substituted for, our products. If our customers fail to accept our products as an alternative, if they develop or acquire the technology to develop such components internally rather than purchase our products, or if we are otherwise unable to develop or maintain strong relationships with them, our business, financial condition and results of operations could be materially and adversely affected.

**We derive most of our revenue from direct or indirect sales to customers in Asia and have significant operations in Asia, which may expose us to political, cultural, regulatory, economic, foreign exchange, and operational risks.**

We derive most of our revenue from customers located in Asia through direct sales or indirect sales through distribution arrangements and value-added reseller agreements with parties located in Asia. As a result, we are subject to increased risks due to this geographic concentration of business and operations. For the three and nine months ended September 30, 2019, 90% and 89% of our revenue, respectively, was from customers in Asia. There are risks inherent in doing business in Asia, and internationally in general, including:

- changes in, or impositions of, legislative or regulatory requirements, including tax laws in the U.S. and in the countries in which we manufacture or sell our products, and government action to restrict our ability to sell to foreign customers where sales of products may require export license;

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- trade restrictions, including restrictions imposed by the United States on trading with parties in foreign countries;
- currency exchange rate fluctuations impacting intra-company transactions;
- the fluctuations in the value of the U.S. Dollar relative to other foreign currencies, which could affect the competitiveness of our products;
- transportation delays;
- changes in tax regulations in China that may impact our tax status in Chengdu, Hangzhou and other regions where we have significant operations;
- tariffs imposed by China and the United States that may impact our sales;
- export controls, trade and economic sanctions and regulations, and other regulatory or contractual limitations on our ability to sell or develop our products in China;
- multi-tiered distribution channels that lack visibility to end customer pricing and purchase patterns;
- international political relationships and threats of war;
- terrorism and threats of terrorism;
- epidemics and illnesses;
- work stoppages and infrastructure problems due to adverse weather conditions or natural disasters;
- work stoppages related to employee dissatisfaction;
- economic, social and political instability;
- longer accounts receivable collection cycles and difficulties in collecting accounts receivables;
- enforcing contracts generally; and
- less effective protection of intellectual property and contractual arrangements.

If we fail to expand our customer base and significantly reduce the geographic concentration of our customers, we will continue to be subject to the foregoing risks, which could materially and adversely affect our revenue and financial condition.

**We depend on a limited number of customers, including distributors, for a significant percentage of our revenue.**

Historically, we have generated most of our revenue from a limited number of customers, including distributors. For example, sales to our largest distributor accounted for 24% and 23% of our total revenue for the three and nine months ended September 30, 2019, respectively. We continue to rely on a limited number of customers for a significant portion of our revenue. Because we rely on a limited number of customers for significant percentages of our revenue, a decrease in demand or significant pricing pressure for our products from any of our major customers for any reason (including due to competition, market conditions, catastrophic events or otherwise) could have a materially adverse impact on our financial conditions and results of operations.

**We are subject to anti-corruption laws in the jurisdictions in which we operate, including the U.S. Foreign Corrupt Practices Act (the “FCPA”). Our failure to comply with these laws could result in penalties which could harm our reputation and have a material adverse effect on our business, results of operations and financial condition.**

We are subject to the FCPA, which generally prohibits companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or keeping business and/or other benefits, along with various other anti-corruption laws. Although we have implemented policies and procedures designed to ensure that we, our employees and other intermediaries comply with the FCPA and other anti-corruption laws to which we are subject, there is no assurance that such policies or procedures will work effectively all of the time or protect us against liability under the FCPA or other laws for actions taken by our employees and other intermediaries with respect to our business or any businesses that we may acquire. We have significant operations in Asia, which place us in frequent contact with persons who may be considered “foreign officials” under the FCPA, resulting in an elevated risk of potential FCPA violations. If we are not in compliance with the FCPA and other laws governing the conduct of business with government entities (including local laws), we may be subject to criminal and civil penalties and other remedial measures, which could have a material adverse impact on our business, financial condition, results of operations and liquidity. Any investigation of any potential violations of the FCPA or other anti-corruption laws by the U.S. or foreign authorities could harm our reputation and have an adverse impact on our business, financial condition and results of operations.

**We receive a significant portion of our revenue from distribution arrangements, value-added resellers and direct customers, and the loss of any one of these distributors, value-added resellers or direct customers or failure to collect a receivable from them could adversely affect our operations and financial position.**

We market our products through distribution arrangements and value-added resellers and through our direct sales and applications support organization to customers that include OEMs, ODMs and electronic manufacturing service providers. Receivables from our customers are generally not secured by any type of collateral and are subject to the risk of being uncollectible. Sales to our largest distributor accounted for 24% and 23% of our total revenue for the three and nine months ended September 30, 2019, respectively. Significant deterioration in the liquidity or financial condition of any of our major customers or any group of our customers could have a material adverse impact on the collectability of our accounts receivable and our future operating results. We primarily conduct our sales on a purchase order basis, and we do not have any long-term supply commitments.

Moreover, we believe a high percentage of our products are eventually sold to a number of OEMs. Although we communicate with OEMs in an attempt to achieve “design wins,” which are decisions by OEMs and/or ODMs to incorporate our products, we do not have purchase commitments from these end users. Therefore, there can be no assurance that the OEMs and/or ODMs will continue to incorporate our ICs into their products. OEM technical specifications and requirements can change rapidly, and we may not have products that fit new specifications from an end customer for whom we have had previous design wins. We cannot be certain that we will continue to achieve design wins from large OEMs, that our direct customers will continue to be successful in selling to the OEMs, or that the OEMs will be successful in selling products which incorporate our ICs. The loss of any significant customer, any material reduction in orders by any of our significant customers or by their OEM customers, the cancellation of a significant customer order, or the cancellation or delay of a customer’s or an OEM’s significant program or product could reduce our revenue and adversely affect our results of operations and financial condition.

**Due to the nature of our business as a component supplier, we may have difficulty both in accurately predicting our future revenue and appropriately managing our expenses.**

Because we provide components for end products and systems, demand for our products is influenced by our customers’ end product demand. As a result, we may have difficulty in accurately forecasting our revenue and expenses. Our revenue depends on the timing, size, and speed of commercial introductions of end products and systems that incorporate our products, all of which are inherently difficult to forecast, as well as the ongoing demand for previously introduced end products and systems. In addition, demand for our products is influenced by our customers’ ability to manage their inventory. Our sales to distributors are subject to higher volatility because they service demand from multiple levels of the supply chain which, in itself, is inherently difficult to forecast. If our customers, including distributors, do not manage their inventory correctly or misjudge their customers’ demand, our shipments to and orders from our customers may vary significantly on a quarterly basis, which could reduce our revenue and adversely affect our results of operations and financial condition.

**Our ability to increase product sales and revenue may be constrained by the manufacturing capacity of our suppliers.**

Although we provide our suppliers with rolling forecasts of our production requirements, their ability to provide wafers to us is limited by the available capacity, particularly capacity in the geometries we require, at the facilities in which they manufacture wafers for us. As a result, this lack of capacity has at times constrained our product sales and revenue growth. In addition, an increased need for capacity to meet internal demands or demands of other customers could cause our suppliers to reduce capacity available to us. Our suppliers may also require us to pay amounts in excess of contracted or anticipated amounts for wafer deliveries or require us to make other concessions in order to acquire the wafer supply necessary to meet our customer requirements. If our suppliers extend lead times, limit supplies or the types of capacity we require, or increase prices due to capacity constraints or other factors, our revenue and gross margin may materially decline. In addition, if we experience supply delays or limitations, our customers may reduce their purchase levels with us and/or seek alternative solutions to meet their demand, which could materially and adversely impact our business and results of operations. Delays in increasing third-party manufacturing capacity may also limit our ability to meet customer demand.

**We currently depend on third-party suppliers to provide us with wafers for our products. If any of our wafer suppliers become insolvent or capacity constrained and are unable and/or fail to provide us sufficient wafers at acceptable yields and at anticipated costs, our revenue and gross margin may decline or we may not be able to fulfill our customer orders.**

We have a supply arrangement with certain suppliers for the production of wafers. Should any of our suppliers become insolvent or capacity constrained, we may not be able to fulfill our customer orders, which would likely cause a decline in our revenue.

While certain aspects of our relationship with these suppliers are contractual, many important aspects of this relationship depend on our suppliers' continued cooperation and our management of the supplier relationships. In addition, the fabrication of ICs is a highly complex and precise process. Problems in the fabrication process can cause a substantial percentage of wafers to be rejected or numerous ICs on each wafer to be non-functional. This could potentially reduce yields. The failure of our suppliers to supply us wafers at acceptable yields could prevent us from fulfilling our customer orders for our products and would likely cause a decline in our revenue.

Further, as is common in the semiconductor industry, our customers may reschedule or cancel orders on relatively short notice. If our customers cancel orders after we submit a committed forecast to our suppliers for the corresponding wafers, we may be required to purchase wafers that we may not be able to resell, which would adversely affect our operating results, financial condition and cash flows.

**We might not be able to deliver our products on a timely basis if our relationships with our assembly and test subcontractors are disrupted or terminated.**

We do not have direct control over product delivery schedules or product quality because all of our products are assembled by third-party subcontractors and a portion of our testing is currently performed by third-party subcontractors. Also, due to the amount of time typically required to qualify assembly and test subcontractors, we could experience delays in the shipment of our products if we were forced to find alternate third parties to assemble or test our products. In addition, events such as global economic crises may materially impact our assembly suppliers' ability to operate. Any future product delivery delays or disruptions in our relationships with our subcontractors could have a material adverse effect on our operating results, financial condition and cash flows.

**There may be unanticipated costs associated with adding to or supplementing our third-party suppliers' manufacturing capacity.**

We anticipate that future growth of our business will require increased manufacturing capacity on the part of third-party supply foundries, assembly shops, and testing facilities for our products. In order to facilitate such growth, we may need to enter into strategic transactions, investments and other activities. Such activities are subject to a number of risks, including:

- the costs and expense associated with such activities;
- the availability of modern foundries to be developed, acquired, leased or otherwise made available to us or our third-party suppliers;
- the ability of foundries and our third-party suppliers to obtain the advanced equipment used in the production of our products;
- delays in bringing new foundry operations online to meet increased product demand; and
- unforeseen environmental, engineering or manufacturing qualification problems relating to existing or new foundry facilities, including delays in qualification of new foundries by our customers.

These and other risks may affect the ultimate cost and timing of any expansion of our third-party suppliers' capacity.

**We purchase inventory in advance based on expected demand for our products, and if demand is not as expected, we may have insufficient or excess inventory, which could adversely impact our financial position.**

As a fabless semiconductor company, we purchase our inventory from third-party manufacturers in advance of selling our products. We place orders with our manufacturers based on existing and expected orders from our customers for particular products. While most of our contracts with our customers and distributors include lead time requirements and cancellation penalties that are designed to protect us from misalignment between customer orders and inventory levels, we must nonetheless make some predictions when we place orders with our manufacturers. In the event that our predictions are inaccurate due to unexpected increases in orders or unavailability of product within the timeframe that is required, we may have insufficient inventory to meet our customer demands. In the event that we order products that we are unable to sell due to a decrease in orders, unexpected order cancellations, injunctions due to patent litigation, or product returns, we may have excess inventory which, if not sold, may need to be written down or would result in a decrease in our revenue in future periods as the excess inventory at our distributors is sold. If any of these situations were to arise, it could have a material impact on our business and financial position.

**The 2017 Tax Act will continue to have significant effects on our income tax expense, which could result in a material adverse impact on our results of operations, financial condition and cash flows.**

In December 2017, the 2017 Tax Act was enacted and included a broad range of tax reforms, including changes to the corporate tax rate, business deductions and international tax provisions. Many of these provisions significantly differed from prior U.S. tax law, resulting in material tax accounting implications for us. Some of the significant new requirements included, but are not limited to, a one-time mandatory deemed repatriation transition tax on previously deferred foreign earnings, a remeasurement of our deferred taxes due to the change in the corporate tax rate, taxation of certain global intangible low-taxed income under the international tax provisions, and limitations on the deductibility of performance-based compensation for officers. Any increase in our income tax expense as a result of the 2017 Tax Act could have a material negative impact on our results of operations and financial condition. In addition, the deemed repatriation transition tax liability, which is payable in installments over eight years, adversely impacts our cash flows. Any changes to our corporate tax planning and strategies as a result of the 2017 Tax Act may not result in a favorable impact on our income tax expense in future periods.

The calculation of the tax impact under the 2017 Tax Act is complex. It requires the collection and analysis of extensive information, the use of estimates and the exercise of significant judgment in determining our tax provision. As we continue to evaluate our existing processes and controls necessary to address the financial reporting effects of the 2017 Tax Act, we also expect further guidance may be forthcoming from the FASB and the SEC, as well as regulations, interpretations and rulings from federal and state tax agencies. If we fail to correctly interpret the tax law or implement effective internal controls on gathering, analyzing and reviewing data used in our calculations, our income tax provision could be misstated, which could have a material adverse impact on our results of operations and financial condition.

**The complexity of calculating our tax provision may result in errors that could result in restatements of our financial statements.**

Due to the complexity associated with the calculation of our tax provision, including the effects of the 2017 Tax Act, we engage third-party tax advisors to assist us in the calculation. If we or our tax advisors fail to resolve or fully understand certain issues that we may have had in the past and issues that may arise in the future, we could be subject to errors, which, if material, would result in us having to restate our financial statements. Restatements are generally costly and could adversely impact our results of operations, damage our reputation, and/or have a negative impact on the trading price of our common stock.

**Changes in effective tax rates or adverse outcomes resulting from examination of our income tax returns could adversely affect our results.**

Our future effective tax rates could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory rates and higher than anticipated in countries where we have higher statutory rates, by changes in the valuation of our deferred tax assets, or by changes in tax laws such as the 2017 Tax Act, regulations, accounting principles or interpretations thereof and discrete items such as vesting of restricted stock units. In addition, we are subject to potential future examinations of our income tax returns by the Internal Revenue Service (“IRS”) and other tax authorities. We assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. There can be no assurance that the outcomes from any examinations will not have an adverse effect on our operating results and financial condition.

**Implementation of an enterprise resource planning (“ERP”) or other information technology systems could result in significant disruptions to our operations.**

From time to time, we may implement new ERP software solutions or upgrade existing systems. Implementation of these solutions and systems is highly dependent on coordination of system providers and internal business teams. We may experience difficulties as we transition to these new or upgraded systems and processes, including loss or corruption of financial, business or customer data. In addition, transitioning to these new systems requires significant capital investments and personnel resources. Difficulties in implementing new or upgraded information systems or any significant system failures could disrupt our operations, which could have a material adverse effect on our capital resources, financial condition or results of operations.

**System security risks, data protection or privacy breaches, cyber attacks and systems integration issues could disrupt our internal operations and/or harm our reputation, and any such disruption or harm could cause a reduction in our expected revenue, increase our expenses, negatively impact our results of operation or otherwise adversely affect our stock price.**

Experienced computer programmers and hackers may be able to penetrate our network security and misappropriate or compromise our confidential and proprietary information, create system disruptions or cause shutdowns. The costs to us to eliminate or alleviate cyber or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in interruptions and delays that may impede our sales, manufacturing, distribution, financial reporting or other critical functions.

In the ordinary course of business, we store sensitive data on our internal systems, network and servers, such as proprietary business and financial information, and confidential data pertaining to our customers, suppliers and business partners. The secure maintenance of sensitive information on our networks and the protection features of our solutions are both critical to our operations and business strategy. We devote significant resources to network security, data encryption, and other security measures to protect our systems and data. However, these security measures cannot provide absolute security. Although we make significant efforts to maintain the security and integrity of our systems and solutions, any destructive or intrusive breach could compromise our networks, creating system disruptions or slowdowns, and the information stored on our networks could be accessed, publicly disclosed, lost or stolen. If any of these types of security breaches were to occur and we were unable to protect sensitive data, our relationships with our business partners and customers could be materially damaged, our reputation could be materially harmed, and we could be exposed to a risk of litigation and possible significant liability.

Portions of our IT infrastructure also may experience interruptions, delays or cessations of service or produce errors in connection with systems integration or migration work that takes place from time to time. We may not be successful in implementing new systems and transitioning data, which could cause business disruptions and our remediation efforts may be expensive, time consuming, disruptive and resource-intensive. Such disruptions could adversely impact our ability to fulfill orders and interrupt other processes. Delayed sales or lost customers resulting from these disruptions could adversely affect our financial results, stock price and reputation.

**If we are unsuccessful in legal proceedings brought against us or any of our customers, we could be prevented from selling many of our products or be required to pay substantial damages. An unfavorable outcome or an additional award of damages, attorneys' fees or an injunction could cause our revenue to decline significantly and could severely harm our business and operating results.**

From time to time we are a party to various legal proceedings. If we are not successful in litigation that could be brought against us or our customers, we could be ordered to pay monetary fines and/or damages. If we are found liable for willful patent infringement, damages could be significant. We and/or our customers could also be prevented from selling some or all of our products. Moreover, our customers and end users could decide not to use our products, and our products and our customers' accounts payable to us could be seized. Finally, interim developments in these proceedings could increase the volatility in our stock price as the market assesses the impact of such developments on the likelihood that we will or will not ultimately prevail in these proceedings.

**Given our inability to control the timing and nature of significant events in our legal proceedings that either have arisen or may arise, our legal expenses are difficult to forecast and may vary substantially from our publicly disclosed forecasts with respect to any given quarter, which could contribute to increased volatility in our stock price and financial condition.**

Historically, we have incurred significant expenses in connection with various legal proceedings that vary with the level of activity in the proceeding. It is difficult for us to forecast our legal expenses for any given quarter, which adversely affects our ability to forecast our expected results of operations in general. We may also be subject to unanticipated legal proceedings, which would result in us incurring unexpected legal expenses. If we fail to meet the expectations of securities or industry analysts as a result of unexpected changes in our legal expenses, our stock price could be materially impacted.

**Future legal proceedings may divert our financial and management resources.**

The semiconductor industry is characterized by frequent claims of infringement and litigation regarding patent and other intellectual property rights. Patent infringement is an ongoing risk, in part because other companies in our industry could have patent rights that may not be identifiable when we initiate development efforts. Litigation may be necessary to enforce our intellectual property rights, and we may have to defend ourselves against additional infringement claims. Such litigation is very costly. In the event any third party makes a new infringement claim against us or our customers, we could incur additional ongoing legal expenses. In addition, in connection with these legal proceedings, we may be required to post bonds to defend our intellectual property rights in certain countries for an indefinite period of time, until such dispute is resolved. If our legal expenses materially increase or exceed anticipated amounts, our capital resources and financial condition could be adversely affected. Further, if we are not successful in any of our intellectual property defenses, our financial condition could be adversely affected and our business could be harmed. Our management team may also be required to devote a great deal of time and effort to these legal proceedings, which could divert management's attention from focusing on our operations and adversely affect our business.



**Failure to protect our proprietary technologies or maintain the right to certain technologies may negatively affect our ability to compete.**

We rely heavily on our proprietary technologies. Our future success and competitive position depend in part upon our ability to obtain and maintain protection of certain proprietary technologies used in our products. We pursue patents for some of our new products and unique technologies, and we also rely on a combination of nondisclosure agreements and other contractual provisions, as well as our employees' commitment to confidentiality and loyalty, to protect our technology, know-how and processes. Despite the precautions we take, it may be possible for unauthorized third parties to copy aspects of our current or future technologies or products, or to obtain and use information that we regard as proprietary. We intend to continue to protect our proprietary technologies, including through patents. However, there can be no assurance that the steps we take will be adequate to protect our proprietary rights, that our patent applications will lead to issued patents, that others will not develop or patent similar or superior products or technologies, or that our patents will not be challenged, invalidated or circumvented by others. Furthermore, the laws of the countries in which our products are or may be developed, manufactured or sold may not protect our products and intellectual property rights to the same extent as laws in the United States. Our failure to adequately protect our proprietary technologies could materially harm our business.

**We face risks in connection with our internal control over financial reporting.**

Effective internal control over financial reporting is necessary for us to provide reliable and accurate financial reports. If we cannot provide reliable financial reports or prevent fraud or other financial misconduct, our business and operating results could be harmed. Our failure to implement and maintain effective internal control over financial reporting could result in a material misstatement of our financial statements or otherwise cause us to fail to meet our financial reporting obligations. This, in turn, could result in a loss of investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our results of operations and/or have a negative impact on the trading price of our common stock, and could subject us to stockholder litigation. In addition, we cannot assure you that we will not in the future identify material weaknesses in our internal control over financial reporting that we have not discovered to date, which may impact the reliability of our financial reporting and financial statements.

**Our products must meet specifications, and undetected defects and failures may occur, which may cause customers to return or stop buying our products and may expose us to product liability risk.**

Our customers generally establish demanding specifications for quality, performance, and reliability that our products must meet. ICs as complex as ours often encounter development delays and may contain undetected defects or failures when first introduced or after commencement of commercial shipments, which might require product replacement or recall. Further, our third-party manufacturing processes or changes thereof, or raw material used in the manufacturing processes may cause our products to fail. We have from time to time in the past experienced product quality, performance or reliability problems. Our standard warranty period is generally one to two years, which exposes us to significant risks of claims for defects and failures. If defects and failures occur in our products, we could experience lost revenue, increased costs, including warranty expense and costs associated with customer support, cancellations or rescheduling of orders or shipments, and product returns or discounts, any of which would harm our operating results.

In addition, product liability claims may be asserted with respect to our technology or products. Although we currently have insurance, there can be no assurance that we have obtained a sufficient amount of insurance coverage, that asserted claims will be within the scope of coverage of the insurance, or that we will have sufficient resources to satisfy any asserted claims.

**The price and availability of commodities (e.g., gold, copper and silicon) may adversely impact our ability to deliver our products in a timely and cost-effective manner, and may adversely affect our business and results of operations.**

Our products incorporate commodities such as gold, copper and silicon. An increase in the price or a decrease in the availability of these commodities and similar commodities that we use could negatively impact our business and results of operations.

**Fluctuations in the value of the U.S. Dollar relative to other foreign currencies, including the Renminbi, may adversely affect results of operations.**

Our manufacturing and packaging suppliers are and will continue to be primarily located in China for the foreseeable future. If the value of the Renminbi rises against the U.S. Dollar, there could be an increase in our manufacturing costs relative to competitors who have manufacturing facilities located in the U.S., which could adversely affect our operations. In addition, our sales are primarily denominated in the U.S. Dollar. If the value of the U.S. Dollar rises against other currencies, it may adversely affect the demand for our products in international markets, which could negatively impact our business and results of operations.

We incur foreign currency exchange gains or losses related to the timing of payments for transactions between the U.S. and our foreign subsidiaries, which are reported in interest and other income in the statements of operations. Fluctuations in the value of the U.S. Dollar relative to the foreign currencies could increase the amount of foreign currency exchange losses we record, which could have an adverse impact on our results of operations.

**Our business is subject to various governmental laws and regulations, and compliance with these regulations may impact our revenue and cause us to incur significant expense. If we fail to maintain compliance with applicable regulations or obtain government licenses and approvals for our desired international trading activities or technology transfers, we may be forced to recall products and cease their distribution, and we could be subject to civil or criminal penalties.**

Our business is subject to various significant laws and other legal requirements imposed by the U.S. and other countries we conduct business with, including export control laws such as the Export Administration Act, the Export Administration Regulations (“EAR”) and other laws, regulations and requirements governing international trade and technology transfer. These laws and regulations are complex, change frequently and have generally become more stringent over time. We may be required to incur significant expense to comply with these regulations or to remedy violations of these regulations. In addition, if our customers fail to comply with these regulations, we may be required to suspend sales to these customers, which could negatively impact our results of operations. We must conform the manufacture and distribution of our products to various laws and adapt to regulatory requirements in many countries as these requirements change. If we fail to comply with these requirements in the manufacture or distribution of our products, we could be required to pay civil penalties, face criminal prosecution and, in some cases, be prohibited from distributing our products commercially until the products are brought into compliance.

**Environmental laws and regulations could cause a disruption in our business and operations.**

We are subject to various state, federal and international laws and regulations governing the environment, including those restricting the presence of certain substances in electronic products and making manufacturers of those products financially responsible for the collection, treatment, recycling and disposal of certain products. Such laws and regulations have been passed in several jurisdictions in which we operate, including various European Union member countries and countries in Asia. There can be no assurance that similar laws and regulations will not be implemented in other jurisdictions resulting in additional costs, possible delays in delivering products, and even the discontinuance of existing and planned future products if the cost were to become prohibitive.

**We and our manufacturing partners are or will be subject to extensive Chinese government regulation, and the benefit of various incentives from Chinese governments that we and our manufacturing partners receive may be reduced or eliminated, which could increase our costs or limit our ability to sell products and conduct activities in China.**

We have manufacturing and testing facilities in China and most of our manufacturing partners are located in China. The Chinese government has broad discretion and authority to regulate the technology industry in China. Additionally, China’s government has implemented policies from time to time to regulate economic expansion in China. It exercises significant control over China’s economic growth through the allocation of resources, controlling payment of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies.

Personal privacy, cyber security, and data protection are becoming increasingly significant issues in China. To address these issues, the Standing Committee of the National People’s Congress promulgated the Cyber Security Law of the People’s Republic of China (the “Cyber Security Law”), which took effect on June 1, 2017. The Cyber Security Law sets forth various requirements relating to the collection, use, storage, disclosure and security of data, among other things. Various Chinese agencies are expected to issue additional regulations in the future to define these requirements more precisely. These requirements may increase our costs of compliance. We cannot assure you that we will be able to comply with all of these regulatory requirements. Any failure to comply with the Cyber Security Law and the relevant regulations and policies could result in further cost and liability to us and could adversely affect our business and results of operations. Additionally, increased costs to comply with, and other burdens imposed by, the Cyber Security Law and relevant regulations and policies that are applicable to the businesses of our suppliers, vendors and other service providers, as well as our customers, could adversely affect our business and results of operations.

Any additional new regulations or the amendment or modification of previously implemented regulations could require us and our manufacturing partners to change our business plans, increase our costs, or limit our ability to sell products and conduct activities in China, which could adversely affect our business and operating results.

The Chinese government and provincial and local governments also have provided, and continue to provide, various incentives to encourage the development of the semiconductor industry in China. Such incentives include tax rebates, reduced tax rates, favorable lending policies and other measures, some or all of which may be available to our manufacturing partners and to us with respect to our facilities in China. Any of these incentives could be reduced or eliminated by governmental authorities at any time. Any such reduction or elimination of incentives currently provided to us and our manufacturing partners could adversely affect our business and operating results.

**There are inherent risks associated with the operation of our manufacturing and testing facilities in China, which could increase product costs or cause a delay in product shipments.**

We have manufacturing and testing facilities in China. We face the following risks, among others, with respect to our operations in China:

- inability to hire and maintain a qualified workforce;
- inability to maintain appropriate and acceptable manufacturing controls; and
- higher than anticipated overhead and other costs of operation.

If we are unable to maintain our facilities in China at fully operational status with qualified workers, appropriate manufacturing controls and reasonable cost levels, we may incur higher costs than our current expense levels, which would affect our gross margins. In addition, if capacity restraints result in significant delays in product shipments, our business and results of operations would be adversely affected.

**The average selling prices of products in our markets have historically decreased over time and could do so in the future, which could harm our revenue and gross profits.**

Average selling prices of semiconductor products in the markets we serve have historically decreased over time. Our gross profits and financial results will suffer if we are unable to offset any reductions in our average selling prices by reducing our costs, developing new or enhanced products on a timely basis with higher selling prices or gross profits, or increasing our sales volumes. Additionally, because we do not operate our own wafer manufacturing or assembly facilities, we may not be able to reduce our costs as rapidly as companies that operate their own facilities, and our costs may even increase, which could also reduce our profit margins.

**Because of the lengthy sales cycles for our products and the fixed nature of a significant portion of our expenses, we may incur substantial expenses before we earn associated revenue and may not ultimately achieve our forecasted sales for our products.**

The introduction of new products presents significant business challenges because product development plans and expenditures may be made up to two years or more in advance of any sales. It generally takes us up to 12 months or more to design and manufacture a new product prototype. Only after we have a prototype do we introduce the product to the market and begin selling efforts in an attempt to achieve design wins. This sales process requires us to expend significant sales and marketing resources without any assurance of success. Volume production of products that use our ICs, if any, may not be achieved for an additional period of time after an initial sale. Sales cycles for our products are lengthy for a number of reasons, including:

- our customers usually complete an in-depth technical evaluation of our products before they place a purchase order;
- the commercial adoption of our products by OEMs and ODMs is typically limited during the initial release of their product to evaluate product performance and consumer demand;
- our products must be designed into our customers' products or systems; and
- the development and commercial introduction of our customers' products incorporating new technologies frequently are delayed.

As a result of our lengthy sales cycles, we may incur substantial expenses before we earn associated revenue because a significant portion of our operating expenses is relatively fixed and based on expected revenue. The lengthy sales cycles of our products also make forecasting the volume and timing of orders difficult. In addition, the delays inherent in lengthy sales cycles raise additional risks that customers may cancel or change their orders. Our sales are made by purchase orders. Because industry practice allows customers to reschedule or cancel orders on relatively short notice, backlog is not always a good indicator of our future sales. If customer cancellations or product changes occur, we could lose anticipated sales and not have sufficient time to reduce our inventory and operating expenses.

**Our success depends on our investment of significant resources in research and development. We may have to invest more resources in research and development than anticipated, which could increase our operating expenses and negatively impact our operating results.**

Our success depends on us investing significant amounts of resources into research and development. We expect to have to continue to invest heavily in research and development in the future in order to continue to innovate and introduce new products in a timely manner and increase our revenue and profitability. If we have to invest more resources in research and development than we anticipate, we could see an increase in our operating expenses which may negatively impact our operating results. Also, if we are unable to properly manage and effectively utilize our research and development resources, we could see material adverse effects on our business, financial condition and operating results.

In addition, if new competitors, technological advances by existing competitors, our entry into new markets, or other competitive factors require us to invest significantly greater resources than anticipated in our research and development efforts, our operating expenses would increase. If we are required to invest significantly greater resources than anticipated in research and development efforts without a corresponding increase in revenue, our operating results could decline. Research and development expenses are likely to fluctuate from time to time to the extent we make periodic incremental investments in research and development and these investments may be independent of our level of revenue, which could negatively impact our financial results. In order to remain competitive, we anticipate that we will continue to devote substantial resources to research and development, and we expect these expenses to increase in absolute dollars in the foreseeable future due to the increased complexity and the greater number of products under development.

**The loss of any of our key personnel or the failure to attract or retain specialized technical and management personnel could affect our operations or impair our ability to grow our business.**

Our future success depends upon our ability to attract and retain highly qualified technical and managerial personnel. We are particularly dependent on the continued services of our key executives, including Michael Hsing, our President and Chief Executive Officer, who founded our company and developed our proprietary process technology. In addition, personnel with highly skilled analog and mixed-signal design engineering expertise are scarce and competition for personnel with these skills is intense. There can be no assurance that we will be able to retain existing key employees or that we will be successful in attracting, integrating or retaining other highly qualified personnel with critical capabilities in the future. If we are unable to retain the services of existing key employees or are unsuccessful in attracting new highly qualified employees quickly enough to meet the demands of our business, including design cycles, our business could be harmed. Furthermore, if we lose key personnel, the search for a qualified replacement and the transition could interrupt our operations as the search could take us longer than expected and divert management resources, and the newly hired employee could take longer than expected to integrate into the team.

**If we fail to retain key employees in our sales, applications, finance and legal staff or to make continued improvements to our internal systems, particularly in the accounting and finance area, our business may suffer.**

If we fail to continue to adequately staff our sales, applications, financial and legal staff, maintain or upgrade our business systems and maintain internal control that meet the demands of our business, our ability to operate effectively will suffer. The operation of our business also depends upon our ability to retain these employees, as these employees hold a significant amount of institutional knowledge about us and our products, and, if they were to terminate their employment, our sales and internal control over financial reporting could be adversely affected.

**We intend to continue to expand our operations, which may strain our resources and increase our operating expenses.**

We plan to continue to expand our domestic and foreign operations through internal growth, strategic relationships, and/or acquisitions. We expect that any such expansion will strain our systems and operational and financial controls. In addition, we are likely to incur significantly higher operating costs. To manage our growth effectively, we must continue to improve and expand our systems and controls, as well as hire experienced administrative and financial personnel. If we fail to do so, our growth will be limited. If we fail to effectively manage our planned expansion of operations, our business and operating results may be harmed.

**We may not realize the anticipated benefits of any company or business that we acquire. In addition, acquisitions could result in diluting the ownership interests of our stockholders, reduce our cash balances, and cause us to incur debt or to assume contingent liabilities, which could adversely affect our business. We may also be the target of strategic transactions, which could divert our management's attention and otherwise disrupt our operations and adversely affect our business.**

As a part of our business strategy, from time to time we review acquisition prospects that would complement our current product offerings, enhance our design capability or offer other competitive opportunities. As a result of completing acquisitions, we could use a significant portion of our available cash, cash equivalents and short-term investments, issue equity securities that would dilute current stockholders' percentage ownership, or incur substantial debt or contingent liabilities. Such actions could impact our operating results and the price of our common stock.

In addition, we may be unable to identify or complete prospective acquisitions for various reasons, including competition from other companies in the semiconductor industry, the valuation expectations of acquisition candidates and applicable antitrust laws or related regulations. If we are unable to identify and complete acquisitions, we may not be able to successfully expand our business and product offerings.

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We cannot guarantee that any future acquisitions will improve our results of operations or that we will otherwise realize the anticipated benefits of any acquisitions. In addition, if we are unsuccessful in integrating any acquired company or business into our operations or if integration is more difficult than anticipated, we may experience disruptions that could harm our business and result in our failure to realize the anticipated benefits of the acquisitions. Some of the risks that may adversely affect our ability to integrate or realize any anticipated benefits from the acquired companies, businesses or assets include those associated with:

- unexpected losses of key employees or customers of the acquired companies or businesses;
- conforming the acquired company's standards, processes, procedures and controls with our operations;
- coordinating new product and process development;
- hiring additional management and other critical personnel;
- increasing the scope, geographic diversity and complexity of our operations;
- difficulties in consolidating facilities and transferring processes and know-how;
- difficulties in the assimilation of acquired operations, technologies or products;
- the risk of undisclosed liabilities of the acquired businesses and potential legal disputes with founders or stockholders of acquired companies;
- our inability to commercialize acquired technologies;
- the risk that the future business potential as projected is not realized and as a result, we may be required to take an impairment charge related to goodwill or acquired intangibles that would impact our profitability;
- difficulties in assessing the fair value of earn-out arrangements;
- diversion of management's attention from other business concerns; and
- adverse effects on existing business relationships with customers.

In addition, third parties may be interested in acquiring us. We will consider and discuss such transactions as we deem appropriate. Such potential transactions may divert the attention of management, and cause us to incur various costs and expenses in investigating and evaluating such transactions, whether or not they are consummated.

**If we issue additional shares of stock in the future, it may have a dilutive effect on our stockholders.**

We may issue additional shares of common stock in the future in order to raise additional capital to fund our global operations or in connection with an acquisition. We also issue restricted stock units to employees, which convert into shares of common stock upon vesting. Any issuance of our common stock may result in immediate dilution to our stockholders. In addition, the issuance of a significant amount of our common stock may result in additional regulatory requirements, such as stockholder approval.

**We compete against many companies with substantially greater financial and other resources, and our market share may be reduced if we are unable to respond to our competitors effectively.**

The analog and mixed-signal semiconductor industry is highly competitive, and we expect competitive pressures to continue. Our ability to compete effectively and to expand our business will depend on our ability to continue to recruit applications and design talent, our ability to introduce new products, and our ability to maintain the rate at which we introduce these new products. We compete with domestic and non-domestic semiconductor companies, many of which have substantially greater financial and other resources with which to pursue engineering, manufacturing, marketing, and distribution of their products. We are in direct and active competition, with respect to one or more of our product lines, with many manufacturers of such products, of varying size and financial strength. The number of our competitors has grown due to the expansion of the market segments in which we participate.

We cannot assure you that our products will continue to compete favorably, or that we will be successful in the face of increasing competition from new products and enhancements introduced by existing competitors or new companies entering this market, which would materially and adversely affect our results of operations and our financial condition.

**If securities or industry analysts downgrade our stock or do not continue to publish research or reports about our business, our stock price and trading volume could decline.**

The trading market for our common stock will depend, in part, on the research and reports that industry or securities analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

**Short positions in our stock could have a substantial impact on the trading price of our stock.**

Historically, there have been “short” positions in our common stock. The anticipated downward pressure on our stock price due to actual or anticipated sales of our stock by some institutions or individuals who engage in short sales of our common stock could cause our stock price to decline. Such stock price decreases could encourage further short-sales that could place additional downward pressure on our stock price. This could lead to further increases in the existing short position in our common stock and cause volatility in our stock price. The volatility of our stock may cause the value of a stockholder’s investment to decline rapidly. Additionally, if our stock price declines, it may be more difficult for us to raise capital and may have other adverse effects on our business.

**There can be no assurance that we will continue to declare cash dividends at all or in any particular amounts.**

In June 2014, the Board of Directors approved a dividend program pursuant to which we intend to pay quarterly cash dividends on our common stock. The declaration of any future cash dividends is at the discretion of our Board of Directors and will depend on, among other things, our financial condition, results of operations, capital requirements, business conditions, and other factors that our Board of Directors may deem relevant, as well as a determination that cash dividends are in the best interests of our stockholders. Our dividend payments may change from time to time, and we cannot provide assurance that we will continue to declare dividends at all or in any particular amounts. A reduction in or elimination of our dividend payments could have a negative effect on the price of our common stock.

**Major earthquakes or other natural disasters and resulting systems outages may cause us significant losses.**

Our office in California, the production facilities of our third-party wafer suppliers, our IC testing and manufacturing facilities, a portion of our assembly and research and development activities, and certain other critical business operations are located in or near seismically active regions and are subject to periodic earthquakes. We do not maintain earthquake insurance and could be materially and adversely affected in the event of a major earthquake. Much of our revenue, as well as our manufacturers and assemblers, are concentrated in Asia, particularly in China. Such concentration increases the risk that other natural disasters, labor strikes, terrorism, war, political unrest, epidemics, and/or health advisories could disrupt our operations. In addition, we rely heavily on our internal information and communications systems and on systems or support services from third parties to manage our operations efficiently and effectively. Any of these are subject to failure due to a natural disaster or other disruption. System-wide or local failures that affect our information processing could have material adverse effects on our business, financial condition, operating results and cash flows.

**ITEM 6. EXHIBITS**

<u>Exhibit No.</u>	<u>Description</u>
31.1	<a href="#">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.</a>
31.2	<a href="#">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.</a>
32.1*	<a href="#">Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

\* This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in any filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

**MONOLITHIC POWER SYSTEMS, INC**

**SIGNATURES**

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

Dated: November 1, 2019

MONOLITHIC POWER SYSTEMS, INC.

/s/ T. Bernie Blegen  
T. Bernie Blegen  
Chief Financial Officer  
(Duly Authorized Officer and Principal Financial and  
Accounting Officer)

**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**

I, Michael Hsing, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Monolithic Power Systems, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 1, 2019

/s/ Michael Hsing  
Michael Hsing  
Chief Executive Officer



**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**

I, T. Bernie Blegen, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Monolithic Power Systems, Inc.;

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

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

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

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

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

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

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

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

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 1, 2019

/s/ T. Bernie Blegen

T. Bernie Blegen  
Chief Financial Officer

The following certification shall not be deemed "filed" for purposes of section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND  
CHIEF FINANCIAL OFFICER PURSUANT TO  
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Monolithic Power Systems, Inc., a Delaware corporation, for the quarter ended September 30, 2019 (the "Report"), as filed with the Securities and Exchange Commission, each of the undersigned officers of Monolithic Power Systems, Inc. certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) the accompanying Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Monolithic Power Systems, Inc. for the periods presented therein.

Date: November 1, 2019

/s/ Michael Hsing

Michael Hsing  
Chief Executive Officer

Date: November 1, 2019

/s/ T. Bernie Blegen

T. Bernie Blegen  
Chief Financial Officer