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

FORM 10-Q

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

For the transition period from _____ to _____.

Commission File Number: 001-34791

MagnaChip Semiconductor Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

83-0406195
(I.R.S. Employer
Identification No.)

c/o MagnaChip Semiconductor S.A.
1, Allée Scheffer, L-2520
Luxembourg, Grand Duchy of Luxembourg
(352) 45-62-62

(Address, zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	MX	New York Stock Exchange

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, anon-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	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

As of October 31, 2019, the registrant had 34,420,689 shares of common stock outstanding.

[Table of Contents](#)

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
TABLE OF CONTENTS

	<u>Page No.</u>
PART I FINANCIAL INFORMATION	3
Item 1. Interim Consolidated Financial Statements (Unaudited)	3
MagnaChip Semiconductor Corporation and Subsidiaries Consolidated Balance Sheets as of September 30, 2019 and December 31, 2018	3
MagnaChip Semiconductor Corporation and Subsidiaries Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2019 and 2018	4
MagnaChip Semiconductor Corporation and Subsidiaries Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months Ended September 30, 2019 and 2018	5
MagnaChip Semiconductor Corporation and Subsidiaries Consolidated Statements of Changes in Stockholders' Equity for the Three and Nine Months Ended September 30, 2019 and 2018	6
MagnaChip Semiconductor Corporation and Subsidiaries Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2019 and 2018	7
MagnaChip Semiconductor Corporation and Subsidiaries Notes to Consolidated Financial Statements	8
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	30
Item 3. Quantitative and Qualitative Disclosures About Market Risk	53
Item 4. Controls and Procedures	54
PART II OTHER INFORMATION	55
Item 1. Legal Proceedings	55
Item 1A. Risk Factors	55
Item 6. Exhibits	56
SIGNATURES	57

PART I—FINANCIAL INFORMATION

Item 1. Interim Consolidated Financial Statements (Unaudited)

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS (Unaudited)

	September 30, 2019	December 31, 2018
	(In thousands of US dollars, except share data)	
Assets		
Current assets		
Cash and cash equivalents	\$ 131,341	\$ 132,438
Accounts receivable, net	106,289	80,003
Unbilled accounts receivable, net	21,356	38,181
Inventories, net	72,703	71,611
Other receivables	10,015	3,702
Prepaid expenses	15,112	11,133
Hedge collateral (Note 8)	9,990	5,810
Other current assets (Note 17)	7,437	9,867
Total current assets	<u>374,243</u>	<u>352,745</u>
Property, plant and equipment, net (Notes 4 and 6)	178,823	202,171
Operating lease right-of-use assets	11,517	—
Intangible assets, net	3,913	3,953
Long-term prepaid expenses	10,926	15,598
Other non-current assets	8,715	8,729
Total assets	<u>\$ 588,137</u>	<u>\$ 583,196</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 79,908	\$ 55,631
Other accounts payable	10,843	15,168
Accrued expenses	48,944	46,250
Deferred revenue	5,822	6,477
Operating lease liabilities	2,023	—
Other current liabilities (Notes 6 and 8)	4,563	9,133
Total current liabilities	<u>152,103</u>	<u>132,659</u>
Long-term borrowings, net	304,155	303,577
Non-current operating lease liabilities	9,494	—
Accrued severance benefits, net	138,794	146,031
Other non-current liabilities (Note 6)	17,018	18,239
Total liabilities	<u>621,564</u>	<u>600,506</u>
Commitments and contingencies (Note 17)		
Stockholders' equity		
Common stock, \$0.01 par value, 150,000,000 shares authorized, 43,378,017 shares issued and 34,370,689 outstanding at September 30, 2019 and 43,054,458 shares issued and 34,441,232 outstanding at December 31, 2018	434	431
Additional paid-in capital	145,555	142,600
Accumulated deficit	(81,557)	(36,305)
Treasury stock, 9,007,328 shares at September 30, 2019 and 8,613,226 shares at December 31, 2018, respectively	(106,514)	(103,926)
Accumulated other comprehensive income (loss)	8,655	(20,110)
Total stockholders' deficit	<u>(33,427)</u>	<u>(17,310)</u>
Total liabilities and stockholders' equity	<u>\$ 588,137</u>	<u>\$ 583,196</u>

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

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
	(In thousands of US dollars, except share data)			
Net sales	\$ 229,677	\$ 206,000	\$ 592,202	\$ 571,504
Cost of sales	168,811	150,251	464,795	417,320
Gross profit	60,866	55,749	127,407	154,184
Operating expenses				
Selling, general and administrative expenses	16,812	18,566	51,857	55,123
Research and development expenses	17,368	18,918	56,375	59,503
Restructuring and other charges	763	—	4,787	—
Total operating expenses	34,943	37,484	113,019	114,626
Operating income	25,923	18,265	14,388	39,558
Interest expense	(5,656)	(5,587)	(16,972)	(16,539)
Foreign currency gain (loss), net	(21,205)	6,002	(41,633)	(20,129)
Loss on early extinguishment of long-term borrowings, net	—	—	(42)	—
Other income (expense), net	785	150	2,114	(291)
Income (loss) before income tax expense	(153)	18,830	(42,145)	2,599
Income tax expense	1,454	1,608	3,107	4,119
Net income (loss)	\$ (1,607)	\$ 17,222	\$ (45,252)	\$ (1,520)
Earnings (loss) per common share—				
Basic	\$ (0.05)	\$ 0.50	\$ (1.32)	\$ (0.04)
Diluted	\$ (0.05)	\$ 0.41	\$ (1.32)	\$ (0.04)
Weighted average number of shares—				
Basic	34,357,745	34,573,377	34,266,513	34,416,887
Diluted	34,357,745	46,021,610	34,266,513	34,416,887

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

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (Unaudited)

	<u>Three Months Ended</u>		<u>Nine Months Ended</u>	
	<u>September 30,</u> <u>2019</u>	<u>September 30,</u> <u>2018</u>	<u>September 30,</u> <u>2019</u>	<u>September 30,</u> <u>2018</u>
	(In thousands of US dollars)			
Net income (loss)	\$ (1,607)	\$ 17,222	\$ (45,252)	\$ (1,520)
Other comprehensive income (loss)				
Foreign currency translation adjustments	15,931	(3,827)	30,915	15,806
Derivative adjustments				
Fair valuation of derivatives	(2,803)	1,046	(5,703)	(891)
Reclassification adjustment for loss (gain) on derivatives included in net income (loss)	1,600	140	3,553	(4,501)
Total other comprehensive income (loss)	<u>14,728</u>	<u>(2,641)</u>	<u>28,765</u>	<u>10,414</u>
Total comprehensive income (loss)	<u>\$ 13,121</u>	<u>\$ 14,581</u>	<u>\$ (16,487)</u>	<u>\$ 8,894</u>

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

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (Unaudited)

(In thousands of US dollars, except share data)	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount					
Three Months Ended September 30, 2019:							
Balance at June 30, 2019	34,240,181	\$ 433	\$ 144,188	\$ (79,950)	\$(106,514)	\$ (6,073)	\$(47,916)
Stock-based compensation	—	—	479	—	—	—	479
Exercise of stock options	129,409	1	888	—	—	—	889
Settlement of restricted stock units	1,099	0	(0)	—	—	—	—
Other comprehensive income, net	—	—	—	—	—	14,728	14,728
Net loss	—	—	—	(1,607)	—	—	(1,607)
Balance at September 30, 2019	<u>34,370,689</u>	<u>\$ 434</u>	<u>\$ 145,555</u>	<u>\$ (81,557)</u>	<u>\$(106,514)</u>	<u>\$ 8,655</u>	<u>\$(33,427)</u>
Three Months Ended September 30, 2018:							
Balance at June 30, 2018	34,483,754	\$ 429	\$ 139,502	\$ (51,147)	\$(102,518)	\$ (20,059)	\$(33,793)
Stock-based compensation	—	—	1,083	—	—	—	1,083
Exercise of stock options	95,088	1	676	—	—	—	677
Settlement of restricted stock units	21,622	0	(0)	—	—	—	—
Acquisition of treasury stock	—	—	—	—	—	—	—
Other comprehensive loss, net	—	—	—	—	—	(2,641)	(2,641)
Net income	—	—	—	17,222	—	—	17,222
Balance at September 30, 2018	<u>34,600,464</u>	<u>\$ 430</u>	<u>\$ 141,261</u>	<u>\$ (33,925)</u>	<u>\$(102,518)</u>	<u>\$ (22,700)</u>	<u>\$(17,452)</u>
Nine Months Ended September 30, 2019:							
Balance at December 31, 2018	34,441,232	\$ 431	\$ 142,600	\$ (36,305)	\$(103,926)	\$ (20,110)	\$(17,310)
Stock-based compensation	—	—	1,920	—	—	—	1,920
Exercise of stock options	153,967	1	1,037	—	—	—	1,038
Settlement of restricted stock units	169,592	2	(2)	—	—	—	—
Acquisition of treasury stock	(394,102)	—	—	—	(2,588)	—	(2,588)
Other comprehensive income, net	—	—	—	—	—	28,765	28,765
Net loss	—	—	—	(45,252)	—	—	(45,252)
Balance at September 30, 2019	<u>34,370,689</u>	<u>\$ 434</u>	<u>\$ 145,555</u>	<u>\$ (81,557)</u>	<u>\$(106,514)</u>	<u>\$ 8,655</u>	<u>\$(33,427)</u>
Nine Months Ended September 30, 2018:							
Balance at December 31, 2017, as previously reported	34,189,599	\$ 426	\$ 136,259	\$ (40,889)	\$(102,319)	\$ (33,114)	\$(39,637)
Impact of adopting the new revenue standard	—	—	—	8,484	—	—	8,484
Balance at January 1, 2018, as adjusted	34,189,599	\$ 426	\$ 136,259	\$ (32,405)	\$(102,319)	\$ (33,114)	\$(31,153)
Stock-based compensation	—	—	3,893	—	—	—	3,893
Exercise of stock options	159,841	2	1,111	—	—	—	1,113
Settlement of restricted stock units	270,456	2	(2)	—	—	—	—
Acquisition of treasury stock	(19,432)	—	—	—	(199)	—	(199)
Other comprehensive income, net	—	—	—	—	—	10,414	10,414
Net loss	—	—	—	(1,520)	—	—	(1,520)
Balance at September 30, 2018	<u>34,600,464</u>	<u>\$ 430</u>	<u>\$ 141,261</u>	<u>\$ (33,925)</u>	<u>\$(102,518)</u>	<u>\$ (22,700)</u>	<u>\$(17,452)</u>

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

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Nine Months Ended	
	September 30, 2019	September 30, 2018
(In thousands of US dollars)		
Cash flows from operating activities		
Net loss	\$ (45,252)	\$ (1,520)
Adjustments to reconcile net loss to net cash provided by operating activities		
Depreciation and amortization	24,661	23,883
Provision for severance benefits	10,491	14,686
Amortization of debt issuance costs and original issue discount	1,712	1,623
Loss on foreign currency, net	50,512	26,931
Restructuring and other charges	470	—
Stock-based compensation	1,920	3,893
Loss on early extinguishment of long-term borrowings, net	42	—
Other	61	(964)
Changes in operating assets and liabilities		
Accounts receivable, net	(32,812)	(14,282)
Unbilled accounts receivable, net	14,208	1,187
Inventories, net	(6,321)	(30,296)
Other receivables	(4,814)	(2,669)
Other current assets	6,356	2,514
Accounts payable	27,585	17,414
Other accounts payable	(10,074)	(8,811)
Accrued expenses	3,831	(5,370)
Deferred revenue	(190)	3,560
Other current liabilities	(6,159)	1,533
Other non-current liabilities	808	1,035
Payment of severance benefits	(6,195)	(9,004)
Other	(821)	(329)
Net cash provided by operating activities	<u>30,019</u>	<u>25,014</u>
Cash flows from investing activities		
Proceeds from settlement of hedge collateral	12,625	11,290
Payment of hedge collateral	(17,024)	(10,965)
Proceeds from disposal of plant, property and equipment	202	1,685
Purchase of plant, property and equipment	(16,693)	(18,875)
Payment for property related to water treatment facility arrangement (Note 4)	—	(4,283)
Payment for intellectual property registration	(907)	(776)
Collection of guarantee deposits	539	794
Payment of guarantee deposits	(1,330)	(89)
Other	23	(38)
Net cash used in investing activities	<u>(22,565)</u>	<u>(21,257)</u>
Cash flows from financing activities		
Repurchase of long-term borrowings	(1,175)	—
Proceeds from exercise of stock options	1,038	1,113
Acquisition of treasury stock	(2,588)	(199)
Proceeds from property related to water treatment facility arrangement	—	4,283
Repayment of financing related to water treatment facility arrangement	(415)	(73)
Repayment of principal portion of finance lease liabilities	(174)	—
Net cash provided by (used in) financing activities	<u>(3,314)</u>	<u>5,124</u>
Effect of exchange rates on cash, cash equivalents and restricted cash	(5,237)	(3,974)
Net increase (decrease) in cash, cash equivalents and restricted cash	<u>(1,097)</u>	<u>4,907</u>
Cash, cash equivalents and restricted cash		
Beginning of the period	132,438	128,575
End of the period	<u>\$ 131,341</u>	<u>\$ 133,482</u>
Supplemental cash flow information		
Cash paid for interest	<u>\$ 19,071</u>	<u>\$ 19,219</u>
Cash paid for income taxes	<u>\$ 1,904</u>	<u>\$ 812</u>
Non-cash investing activities		
Property, plant and equipment additions in other accounts payable	<u>\$ 496</u>	<u>\$ 4,668</u>

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

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(TABULAR DOLLARS IN THOUSANDS, EXCEPT SHARE DATA)

1. Business, Basis of Presentation and Significant Accounting Policies

Business

MagnaChip Semiconductor Corporation (together with its subsidiaries, the “Company”) is a designer and manufacturer of analog and mixed-signal semiconductor platform solutions for communications, Internet of Things (“IoT”) applications, consumer, industrial and automotive applications. The Company provides technology platforms for analog, mixed signal, power, high voltage, non-volatile memory and Radio Frequency (“RF”) applications. The Company’s business is comprised of two operating segments: Foundry Services Group and Standard Products Group. The Company’s Foundry Services Group provides specialty analog and mixed-signal foundry services mainly for fabless and Integrated Device Manufacturer (“IDM”) semiconductor companies that primarily serve communications, IoT, consumer, industrial and automotive applications. The Company’s Standard Products Group is comprised of two business lines: Display Solutions and Power Solutions. The Company’s Display Solutions products provide panel display solutions to major suppliers of large and small rigid and flexible panel displays, and mobile, automotive applications and home appliances. The Company’s Power Solutions products include discrete and integrated circuit solutions for power management in communications, consumer and industrial applications.

Basis of Presentation

The accompanying unaudited interim consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States of America (“US GAAP”). These interim consolidated financial statements include normal recurring adjustments and the elimination of all intercompany accounts and transactions which are, in the opinion of management, necessary to provide a fair statement of the Company’s financial condition and results of operations for the periods presented. These interim consolidated financial statements are presented in accordance with Accounting Standards Codification 270, “*Interim Reporting*” and, accordingly, do not include all of the information and note disclosures required by US GAAP for complete financial statements, except for the changes below. The results of operations for the three and nine months ended September 30, 2019 are not necessarily indicative of the results to be expected for a full year or for any other periods.

The December 31, 2018 balance sheet data was derived from the Company’s audited financial statements, but does not include all disclosures required by US GAAP.

Upon the adoption of Accounting Standards Update (“ASU”) No. 2016-02, “Leases (Topic 842)” (“ASU 2016-02”) effective on January 1, 2019 (the “new lease standard”), the Company has updated its accounting policy for leases as detailed below.

Leases

The Company determines if an arrangement is a lease at inception of a contract considering whether the arrangement conveys the right to control the use of an identified asset over the period of use. Control of an underlying asset is conveyed if the Company has the right to direct the use of, and to obtain substantially all of the economic benefits from the use of, the identified asset. The Company accounts for lease transactions as either an operating or a finance lease, depending on the terms of the underlying lease arrangement. Assets related to operating leases are recorded on the balance sheet as operating lease right-of-use assets; the related liabilities are recorded as operating lease liabilities for the current portion and non-current operating lease liabilities for the non-current portion. Finance lease right-of-use assets are included in property and equipment, net and the related lease liabilities are included in other current liabilities and other non-current liabilities on the consolidated balance sheets.

Right-of-use assets represent the Company’s right to use an underlying asset during the lease term and lease liabilities represent the Company’s obligation to make lease payments arising from the lease. Right-of-use assets and liabilities are recognized based on the present value of the future minimum lease payments over the lease term. As most of the Company’s leases do not provide a readily determinable implicit rate, the Company estimates its incremental borrowing rates in determining the present value of future payments based on the lease term of each lease and market information available at commencement date. Fixed lease expenses for operating leases and depreciation expenses for finance leases are recognized on a straight-line basis over the respective lease term.

[Table of Contents](#)

An extension or contraction of a lease term is considered if the related option to extend or early terminate the lease is reasonably certain to be exercised by the Company. Operating lease right-of-use assets may also include any advance lease payments made and exclude lease incentives and initial direct costs incurred. The Company has lease agreements with lease and non-lease components, which are generally accounted for separately. For certain equipment leases, lease and non-lease components are accounted for as a single lease component.

Variable lease payment amounts that cannot be determined at the commencement of the lease such as increases in lease payments based on changes in index rates are not included in the right-of-use assets or liabilities. These variable lease payments are expensed as incurred.

The Company does not recognize operating lease right-of-use assets and operating lease liabilities that arise from short-term leases but rather recognizes fixed lease payments in the statements of operations on a straight-line basis and variable payments in the period in which the related obligations incur.

Revenue Recognition

The Company recognizes revenue when it satisfies the performance obligation of transferring control over a product or service to a customer. Revenue is measured based on the consideration specified in a contract with a customer, which consideration is paid in exchange for a product or service.

The Foundry Services Group of the Company manufactures products, which the Company refers to as foundry products, based on customers' specific product designs. The Company recognizes revenue over time for foundry products that do not have an alternative use when the Company has an enforceable right to payment. Revenue recognized over time is in proportion of wafer manufacturing costs incurred relative to total estimated costs for completion. However, in certain circumstances, pursuant to a customer contract or an individual purchase order, the Company may not have an enforceable right to payment for services performed at a given time. In this situation, the Company recognizes revenue at the time when a customer obtains control of the product, which is generally upon product shipment, delivery at the customer's location or upon customer acceptance, depending on the terms of the arrangement.

The Standards Products Group of the Company sells products manufactured based on the Company's design. The Standard Products Group's products are either standardized with an alternative use or the Company does not have an enforceable right to payment for the related manufacturing services completed to date. For those products, revenue is recognized when a customer obtains control of the product, which is generally upon product shipment, delivery at the customer's location or upon customer acceptance, depending on the terms of the arrangement.

A portion of the Company's sales are made through distributors for which the Company applies the same revenue recognition guidance described above. The Company defers the recognition of revenue when it receives consideration from the customers prior to the fulfillment of performance obligations. These amounts are classified as deferred revenue on the consolidated balance sheets. Of the recorded deferred revenue of \$6,477 thousand as of December 31, 2018, \$188 thousand and \$1,750 thousand were recognized as revenue during the three and nine months ended September 30, 2019. Of the recorded deferred revenue of \$8,335 thousand as of December 31, 2017, \$2,256 thousand and \$3,478 thousand were recognized as revenue during the three and nine months ended September 30, 2018, respectively.

In accordance with revenue recognition guidance, any tax assessed by a governmental authority that is both imposed on and concurrent with a specific revenue-producing transaction, and that is collected by the Company from a customer, is excluded from revenue and presented in the statements of operations on a net basis.

The Company provides warranties under which customers can return defective products. The Company also provides allowances for additional products that may have to be provided free of charge to compensate customers for not meeting previously agreed upon yield criteria, which the Company refers to as the low yield compensation reserve. The Company estimates the costs related to warranty claims, repair or replacements and low yield compensation reserves, and records them as components of cost of sales.

In addition, the Company offers sales returns (other than those that relate to defective products under warranty), cash discounts for early payments, sales incentives including discounts and volume rebates, and certain allowances to the Company's customers, including the Company's distributors. The Company records reserves for those returns, discounts, incentives and allowances as a deduction from sales, based on historical experience and other quantitative and qualitative factors.

[Table of Contents](#)

Substantially all of the Company's contracts are one year or less in duration. The standard payment terms with customers are generally thirty to sixty days from the time of shipment, product delivery to the customer's location or customer acceptance, depending on the terms of the related arrangement.

Unbilled accounts receivable represents the Company's contractual right to consideration for manufacturing work performed on a customer contract or an individual purchase order, which has not been invoiced to the customer. Of the recorded unbilled accounts receivable of \$38,181 thousand as of December 31, 2018, \$2,993 thousand and \$32,780 thousand were billed to customers upon shipment, upon product delivery or upon customer acceptance, depending on the terms of the related arrangement, during the three and nine months ended September 30, 2019, respectively.

Recent Accounting Pronouncements

In August 2018, the U.S. Securities and Exchange Commission (the "SEC") adopted the final rule under SEC Release No. 33-10532, "Disclosure Update and Simplification," which makes a number of changes meant to simplify interim disclosures. The amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of operations is required to be filed. In July 2019, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2019-07, "Codification Updates to SEC Sections—Amendments to SEC Paragraphs Pursuant to SEC Final Rule Releases No. 33-10532, Disclosure Update and Simplification, and Nos. 33-10231 and 33-10442, Investment Company Reporting Modernization and Miscellaneous Updates" ("ASU 2019-07"). ASU 2019-07 codifies Final Rule Release No. 33-10532. The additional elements of ASU 2019-07 did not have a material impact on the Company's consolidated financial statements. The Company began to present a statement of changes in stockholders' equity in its quarterly financial statements for fiscal quarter beginning after January 1, 2019.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" ("ASU 2016-13"). ASU 2016-13 amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables. In April 2019, the FASB ASU No. 2019-04, "Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments" ("ASU 2019-04") which clarifies treatment of certain credit losses. ASU 2016-13 and ASU 2019-04 are effective for fiscal years beginning after December 15, 2019, with early adoption permitted. The Company does not expect the adoption of ASU 2016-13 and ASU 2019-04 to have a material effect on the Company's consolidated financial statements.

In August 2018, the FASB issued Accounting Standards Update No. 2018-13 "Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement" ("ASU 2018-13"). ASU 2018-13 amends existing fair value measurement disclosure requirements by adding, changing, or removing certain disclosures. ASU 2018-13 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption permitted for any eliminated or modified disclosures. The Company does not expect that the adoption will have an impact on the Company's consolidated financial statements.

Recently Adopted Accounting Pronouncements

In February 2018, the FASB issued Accounting Standards Update No. 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220) Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which allows for a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act. The Company adopted ASU 2018-02 in the first quarter of 2019, and the adoption did not impact the Company's consolidated financial statements and related disclosures.

In August 2017, the FASB issued Accounting Standards Update No. 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities" ("ASU 2017-12"). ASU 2017-12 provides new guidance about income statement classification and eliminates the requirement to separately measure and report hedge ineffectiveness. The entire change in fair value for qualifying hedge instruments included in the effectiveness will be recorded in other comprehensive income ("OCI") and amounts deferred in OCI will be reclassified to earnings in the same income statement line item in which the earnings effect of the hedged item is reported. The Company adopted ASU 2017-12 in the first quarter of 2019, and the adoption of ASU 2017-12 did not have a material impact to the Company's consolidated financial statements.

In July 2017, the FASB issued Accounting Standards Update No. 2017-11, "Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815)" ("ASU 2017-11"), which addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings.

[Table of Contents](#)

Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. The Company adopted ASU 2017-11 in the first quarter of 2019, and the adoption did not impact the Company's consolidated financial statements.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, "Leases (Topic 842)" ("ASU 2016-02") in order to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under US GAAP. ASU 2016-02 requires that a lessee recognize a liability to make lease payments and right-of-use asset representing its right to use the underlying asset for the lease term on the balance sheet. The FASB issued Accounting Standards Update No 2018-01, "Leases (Topic 842) Land Easement Practical Expedient for Transition to Topic 842" ("ASU 2018-01"). ASU 2018-01 permits an entity to elect an optional transition practical expedient not to evaluate land easements that exist or expired before the entity's adoption of ASU 2016-02 and that were not accounted for as leases under previous lease guidance. In July 2018, the FASB issued Accounting Standards Update No 2018-10, "Codification Improvements to Topic 842 Leases" ("ASU 2018-10"). ASU 2018-10 provides narrow amendments to clarify how to apply certain aspects of the new lease standard. In July 2018, the FASB also issued Accounting Standards Update No 2018-11, "Leases (Topic 842) Targeted Improvements" ("ASU 2018-11"). ASU 2018-11 allows an entity to recognize a cumulative-effect adjustment to the opening balance of retained earnings upon adoption of ASU 2016-02 (the "modified retrospective transition method"). In December 2018, the FASB issued Accounting Standards Update No 2018-20, "Leases (Topic 842) Narrow Scope Improvements for Lessors" ("ASU 2018-20"). ASU 2018-20 provides certain amendments that affect narrow aspects of the guidance issued in ASU 2016-02. In March 2019, the FASB issued Accounting Standards Update No 2019-01 "Codification Improvements" ("ASU 2019-01"). The effective date and transition requirements for ASU 2016-02, ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01 are the same.

The Company adopted the new lease standard as of January 1, 2019, using the modified retrospective transition method, which requires a cumulative effect adjustment, if any, to the Company's beginning equity to be recognized on the date of adoption. There was no cumulative effect adjustment recorded on January 1, 2019. Accordingly, all periods prior to January 1, 2019, were presented in accordance with the previous FASB Accounting Standards Codification ("ASC") Topic 840, Leases, and no retrospective adjustments were made to the comparative periods presented. The impact from the adoption was the balance sheet recognition of right-of-use assets and lease liabilities for operating and finance leases as a lessee, which resulted in an increase of \$16,387 thousand in the total assets and liabilities of the Company's consolidated balance sheets as of January 1, 2019. In addition, the adoption did not materially impact the Company's consolidated statements of operations or cash flows for the nine months ended September 30, 2019. For further information regarding these impacts, see Note 6, "Leases."

2. Sales of Accounts Receivable and Receivable Discount Program

The Company has entered into an agreement to sell selected trade accounts receivable to a financial institution from time to time since March 2012. After the sale, the Company does not retain any interest in the receivables and the applicable financial institution collects these accounts receivable directly from the customer. The proceeds from the sales of these accounts receivable totaled \$14,474 thousand and \$17,156 thousand for the nine months ended September 30, 2019 and 2018, respectively, and these sales resulted in pre-tax losses of \$45 thousand and \$35 thousand for the nine months ended September 30, 2019 and 2018, respectively, which are included in selling, general and administrative expenses in the consolidated statements of operations. Net proceeds of this accounts receivable sale program are recognized in the consolidated statements of cash flows as part of operating cash flows.

The Company uses receivable discount programs with certain customers. These discount arrangements allow the Company to accelerate collection of customers' receivables.

[Table of Contents](#)

3. Inventories

Inventories as of September 30, 2019 and December 31, 2018 consist of the following (in thousands):

	September 30, 2019	December 31, 2018
Finished goods	\$ 11,802	\$ 14,334
Semi-finished goods and work-in-process	53,881	39,135
Raw materials	17,546	21,150
Materials in-transit	1,230	1,890
Less: inventory reserve	(11,756)	(4,898)
Inventories, net	<u>\$ 72,703</u>	<u>\$ 71,611</u>

Changes in inventory reserve for the three and nine months ended September 30, 2019 and 2018 are as follows (in thousands):

	Three Months Ended September 30, 2019	Nine Months Ended	Three Months Ended September 30, 2018	Nine Months Ended
Beginning balance	\$ (12,253)	\$ (4,898)	\$ (4,699)	\$ (6,391)
Change in reserve				
Inventory reserve charged to costs of sales	(1,446)	(11,552)	(980)	(4,104)
Sale of previously reserved inventory	961	1,982	1,208	2,937
	(485)	(9,570)	228	(1,167)
Write off	481	1,823	656	3,525
Translation adjustments	501	889	(35)	183
Ending balance	<u>\$ (11,756)</u>	<u>\$ (11,756)</u>	<u>\$ (3,850)</u>	<u>\$ (3,850)</u>

Inventory reserve represents the Company's best estimate in value lost due to excessive inventory level, physical deterioration, obsolescence, changes in price levels, or other causes based on individual facts and circumstances. Inventory reserve relates to inventory items including finished goods, semi-finished goods, work-in-process and raw materials. Write off of this reserve is recognized only when the related inventory has been disposed or scrapped.

During the first half of 2019, the Company recorded inventory reserves of \$5,475 thousand related to certain legacy display products.

[Table of Contents](#)

4. Property, Plant and Equipment

Property, plant and equipment as of September 30, 2019 and December 31, 2018 are comprised of the following (in thousands):

	September 30, 2019	December 31, 2018
Buildings and related structures	\$ 65,933	\$ 70,665
Machinery and equipment	312,758	323,325
Finance lease right-of-use assets	2,368	—
Others	40,618	44,724
	<u>421,677</u>	<u>438,714</u>
Less: accumulated depreciation	(257,205)	(251,962)
Land	14,351	15,419
Property, plant and equipment, net	<u>\$ 178,823</u>	<u>\$ 202,171</u>

Aggregate depreciation expenses totaled \$23,994 thousand and \$23,272 thousand for the nine months ended September 30, 2019 and 2018, respectively.

As of June 29, 2018, the Company's Korean subsidiary entered into an arrangement whereby it acquired a water treatment facility to support its fab in Gumi, Korea from SK Hynix for \$4,172 thousand, and sold it for \$4,172 thousand to a third party management company that the Company has engaged to run the facility for a 10-year term. This arrangement is accounted for as a financing due to the Company's Korean subsidiary's continuing involvement with the facility. As a result, on the acquisition date, the Company recorded the water treatment facility of \$4,172 thousand as property, plant and equipment, net, which is depreciated over its estimated useful life. The Company also recorded the related liabilities of \$553 thousand as other current liabilities and \$3,619 thousand as other non-current liabilities, which relates to the financing and service portion of the arrangement and is amortized using the effective interest method over the contract period.

5. Intangible Assets

Intangible assets as of September 30, 2019 and December 31, 2018 are comprised of the following (in thousands):

	September 30, 2019		
	Gross amount	Accumulated amortization	Net amount
Technology	\$18,010	\$ (18,010)	\$ —
Customer relationships	25,866	(25,866)	—
Intellectual property assets	11,672	(7,759)	3,913
Intangible assets, net	<u>\$55,548</u>	<u>\$ (51,635)</u>	<u>\$3,913</u>

	December 31, 2018		
	Gross amount	Accumulated amortization	Net amount
Technology	\$19,350	\$ (19,350)	\$ —
Customer relationships	27,791	(27,791)	—
Intellectual property assets	11,571	(7,618)	3,953
Intangible assets, net	<u>\$58,712</u>	<u>\$ (54,759)</u>	<u>\$3,953</u>

Aggregate amortization expenses for intangible assets totaled \$667 thousand and \$611 thousand for the nine months ended September 30, 2019 and 2018, respectively.

[Table of Contents](#)

6. Leases

The Company has operating and finance leases for land, buildings and other assets such as vehicles and office equipment. The Company's leases have remaining lease terms ranging from 1 year to 15 years. For certain leases, the Company has options to extend the lease term for additional periods ranging from 1 year to 10 years. The Company used hindsight for determining the remaining lease term and assessing the likelihood of whether these renewal options are reasonably certain to be exercised by the Company.

The Company's land lease payment is subject to a biennial adjustment (based on change of the Consumer Price Index), the impact of which is treated as a variable lease payment.

The Company adopted the new lease accounting standard as of January 1, 2019, using the modified retrospective transition method. The tables below present financial information related to the Company's leases.

Supplemental balance sheet information related to leases is as follows (in thousands):

<u>Leases</u>	<u>Classification</u>	<u>As of</u> <u>September 30, 2019</u>
Assets		
Operating lease	Operating lease right-of-use assets	\$ 11,517
Finance lease	Property, plant and equipment, net	2,147
Total leased assets		<u>\$ 13,664</u>
Liabilities		
Current		
Operating	Operating lease liabilities	\$ 2,023
Finance	Other current liabilities	238
Non-current		
Operating	Non-current operating lease liabilities	9,494
Finance	Other non-current liabilities	1,961
Total lease liabilities		<u>\$ 13,716</u>

The components of lease cost included in the Company's consolidated statements of operations, are as follows (in thousands):

	<u>Three Months</u> <u>Ended</u>	<u>Nine Months</u> <u>Ended</u>
	<u>September 30, 2019</u>	
Operating lease cost	\$ 767	\$ 2,395
Finance lease cost		
Amortization of right-of-use assets	74	228
Interest on lease liabilities	43	135
Total lease cost	<u>\$ 884</u>	<u>\$ 2,758</u>

The above table does not include an immaterial cost of short-term leases and a variable lease payment during the three and nine months ended September 30, 2019.

[Table of Contents](#)

Other lease information is as follows (in thousands):

	Three Months Ended	Nine Months Ended
	September 30, 2019	
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$ 767	\$ 2,395
Operating cash flows from finance leases	43	135
Financing cash flows from finance leases	56	174
		As of September 30, 2019
Weighted average remaining lease term		
Operating leases		12.4 years
Finance leases		10.5 years
Weighted average remaining lease term		
Operating leases		7.96%
Finance leases		7.94%

The aggregate future lease payments for operating and finance leases as of September 30, 2019 are as follows (in thousands):

	Operating Leases	Finance Leases
2019	\$ 730	\$ 100
2020	2,679	398
2021	1,306	398
2022	1,057	398
2023	1,048	398
Thereafter	<u>11,281</u>	<u>1,555</u>
Total future lease payments	18,101	3,247
Less: Present value adjustment	<u>(6,584)</u>	<u>(1,048)</u>
Present value of future payments	<u>\$ 11,517</u>	<u>\$ 2,199</u>

As of December 31, 2018, the minimum aggregate rental payments due under non-cancelable operating lease contracts are as follows (in thousands):

2019	\$ 4,319
2020	3,569
2021	1,570
2022	1,319
2023	1,309
2024 and thereafter	<u>13,978</u>
	<u>\$26,064</u>

7. Accrued Expenses

Accrued expenses as of September 30, 2019 and December 31, 2018 are comprised of the following (in thousands):

	September 30, 2019	December 31, 2018
Payroll, benefits and related taxes, excluding severance benefits	\$ 18,523	\$ 14,548
Withholding tax attributable to intercompany interest income	22,705	20,879
Interest on senior notes	3,444	8,226
Outside service fees	888	935
Others	<u>3,384</u>	<u>1,662</u>
Accrued expenses	<u>\$ 48,944</u>	<u>\$ 46,250</u>

8. Derivative Financial Instruments

The Company's Korean subsidiary from time to time has entered into zero cost collar and forward contracts to hedge the risk of changes in the functional-currency-equivalent cash flows attributable to currency rate changes on U.S. dollar denominated revenues.

Details of derivative contracts as of September 30, 2019 are as follows (in thousands):

Date of transaction	Type of derivative	Total notional amount	Month of settlement
April 2, 2019	Zero cost collar	\$ 15,000	October 2019 to December 2019
April 9, 2019	Zero cost collar	\$ 15,000	October 2019 to December 2019
April 25, 2019	Zero cost collar	\$ 15,000	October 2019 to December 2019
August 13, 2019	Zero cost collar	\$ 60,000	January 2020 to June 2020
September 27, 2019	Zero cost collar	\$ 42,000	January 2020 to June 2020

Details of derivative contracts as of December 31, 2018 are as follows (in thousands):

Date of transaction	Type of derivative	Total notional amount	Month of settlement
June 27, 2018	Zero cost collar	\$ 18,000	January 2019 to June 2019
June 27, 2018	Forward	\$ 36,000	January 2019 to June 2019

The zero cost collar and forward contracts qualify as cash flow hedges under ASC 815, "Derivatives and Hedging," since at both the inception of the contracts and on an ongoing basis, the hedging relationship was and is expected to be highly effective in achieving offsetting cash flows attributable to the hedged risk during the term of the contracts.

The fair values of the Company's outstanding zero cost collar and forward contracts recorded as assets and liabilities as of September 30, 2019 and December 31, 2018 are as follows (in thousands):

Derivatives designated as hedging instruments:	September 30, 2019	December 31, 2018
Asset Derivatives:		
Zero cost collars	\$ 13	\$ —
Liability Derivatives:		
Zero cost collars	\$ 2,234	\$ 117
Forward	\$ —	\$ 607

Offsetting of derivative assets and liabilities as of September 30, 2019 is as follows (in thousands):

As of September 30, 2019	Gross amounts of recognized assets/liabilities	Gross amounts offset in the balance sheets	Net amounts of assets/liabilities presented in the balance sheets	Gross amounts not offset in the balance sheets		Net amount
				Financial instruments	Cash collateral pledged	
Asset Derivatives:						
Zero cost collars	\$ 13	\$ —	\$ 13	\$ —	\$ —	\$ 13
Liability Derivatives:						
Zero cost collars	\$ 2,234	\$ —	\$ 2,234	\$ —	\$ (590)	\$ 1,644

Offsetting of derivative liabilities as of December 31, 2018 is as follows (in thousands):

As of December 31, 2018	Gross amounts of recognized liabilities	Gross amounts offset in the balance sheets	Net amounts of liabilities presented in the balance sheets	Gross amounts not offset in the balance sheets		Net amount
				Financial instruments	Cash collateral pledged	
Liability Derivatives:						
Zero cost collars	\$ 117	\$ —	\$ 117	\$ —	\$ (360)	\$ (243)
Forward	\$ 607	\$ —	\$ 607	\$ —	\$ (1,450)	\$ (843)

Table of Contents

For derivative instruments that are designated and qualify as cash flow hedges, gains or losses on the derivative aside from components excluded from the assessment of effectiveness, are reported as a component of accumulated other comprehensive income (“AOCI”) and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative, representing hedge components excluded from the assessment of effectiveness, are recognized in current earnings.

The following table summarizes the impact of derivative instruments on the consolidated statements of operations for the three months ended September 30, 2019 and 2018 (in thousands):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Amount of Gain (Loss) Recognized in AOCI on Derivatives (Effective Portion)		Location/Amount of Loss Reclassified from AOCI Into Statement of Operations (Effective Portion)		Location/Amount of Gain (Loss) Recognized in Statement of Operations on Derivatives (Ineffective Portion) (1)			
	Three Months Ended September 30,		Three Months Ended September 30,		Three Months Ended September 30,			
	2019	2018	2019	2018	2019	2018		
	Zero cost collars	\$ (2,803)	\$ 386	Net sales	\$ (1,600)	\$ —	Other income (expense), net	\$ (33)
Forwards	\$ —	\$ 660	Net sales	\$ —	\$ (140)	Other income (expense), net	\$ —	\$ (102)
Forwards—excluded time value (1)						Other income (expense), net	\$ —	\$ (434)
	<u>\$ (2,803)</u>	<u>\$ 1,046</u>		<u>\$ (1,600)</u>	<u>\$ (140)</u>		<u>\$ (33)</u>	<u>\$ (518)</u>
			Total Revenue	<u>\$229,677</u>	<u>\$206,000</u>			

The following table summarizes the impact of derivative instruments on the consolidated statement of operations for the nine months ended September 30, 2019 and 2018 (in thousands):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Amount of Loss Recognized in AOCI on Derivatives (Effective Portion)		Location/Amount of Gain (Loss) Reclassified from AOCI Into Statement of Operations (Effective Portion)		Location/Amount of Loss Recognized in Statement of Operations on Derivatives (Ineffective Portion) (1)			
	Nine Months Ended September 30,		Nine Months Ended September 30,		Nine Months Ended September 30,			
	2019	2018	2019	2018	2019	2018		
	Zero cost collars	\$ (3,905)	\$ (756)	Net sales	\$ (1,803)	\$ 2,191	Other income (expense), net	\$ (44)
Forwards	\$ (1,798)	\$ (135)	Net sales	\$ (1,750)	\$ 2,310	Other income (expense), net	\$ (125)	\$ (1,765)
Forwards—excluded time value (1)						Other income (expense), net	\$ —	\$ (161)
	<u>\$ (5,703)</u>	<u>\$ (891)</u>		<u>\$ (3,553)</u>	<u>\$ 4,501</u>		<u>\$ (169)</u>	<u>\$ (2,226)</u>
			Total Revenue	<u>\$592,202</u>	<u>\$571,504</u>			

- (1) The FASB issued the new guidance about hedging activities (ASU2017-12), which provides new rules about income statement classification and eliminates the requirement to separately measure and report hedge ineffectiveness. In addition, under the same guidance, excluded time value for forward contracts is presented in earnings in the same income statement line item that is used to present the earnings effect of the hedged item. The Company adopted the new guidance in the first quarter of 2019 and recorded \$98 thousand as a reduction of net sales for the same period, and the comparative prior period amounts were not restated and continued to be reported under the accounting standards in effect for such period.

As of September 30, 2019, the amount expected to be reclassified from accumulated other comprehensive income into loss within the next twelve months is \$2,199 thousand.

The Company set aside \$9,400 thousand and \$4,000 thousand in cash deposits to the counterparties, Nomura Financial Investment (Korea) Co., Ltd. (“NFIK”) and Deutsche Bank AG, Seoul Branch (“DB”), as required for the zero cost collar and forward contracts outstanding as of September 30, 2019 and December 31, 2018, respectively. These cash deposits are recorded as hedge collateral on the consolidated balance sheets.

[Table of Contents](#)

The Company is required to deposit additional cash collateral with NFIK and DB for any exposure in excess of \$500 thousand, and \$590 thousand and \$1,810 thousand of additional cash collateral were required and recorded as hedge collateral on the consolidated balance sheets as of September 30, 2019 and December 31, 2018, respectively.

These forward and zero cost collar contracts may be terminated by the counterparty in a number of circumstances, including if the Company's long-term debt rating falls below B-/B3 or if the Company's total cash and cash equivalents is less than \$30,000 thousand at the end of a fiscal quarter, unless a waiver is obtained from the counterparty.

[Table of Contents](#)

9. Fair Value Measurements

Fair Value of Financial Instruments

As of September 30, 2019, the following table represents the Company's assets and liabilities measured at fair value on a recurring basis and the basis for that measurement (in thousands):

	Carrying Value September 30, 2019	Fair Value Measurement September 30, 2019	Quoted Prices in Active Markets for Identical Asset (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:					
Derivative assets (other current assets)	\$ 13	\$ 13	—	\$ 13	—
Liabilities:					
Derivative liabilities (other current liabilities)	\$ 2,234	\$ 2,234	—	\$ 2,234	—

As of December 31, 2018, the following table represents the Company's liabilities measured at fair value on a recurring basis and the basis for that measurement (in thousands):

	Carrying Value December 31, 2018	Fair Value Measurement December 31, 2018	Quoted Prices in Active Markets for Identical Asset (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities:					
Derivative liabilities (other current liabilities)	\$ 724	\$ 724	—	\$ 724	—

Items not reflected in the table above include cash equivalents, accounts receivable, other receivables, accounts payable, and other accounts payable, fair value of which approximate carrying values due to the short-term nature of these instruments. The fair value of assets and liabilities whose carrying value approximates fair value is determined using Level 2 inputs.

Fair Value of Long-Term Borrowings

	September 30, 2019		December 31, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
(In thousands of US dollars)				
Long-term Borrowings:				
5.0% Exchangeable Senior Notes due March 2021 (Level 2)	\$ 81,594	\$ 116,078	\$ 81,418	\$ 86,835
6.625% Senior Notes due July 2021 (Level 2)	\$ 222,561	\$ 219,765	\$ 222,159	\$ 202,046

On January 17, 2017, the Company's wholly-owned subsidiary, MagnaChip Semiconductor S.A., closed an offering (the "Exchangeable Notes Offering") of 5.0% Exchangeable Senior Notes due March 1, 2021 (the "Exchangeable Notes"), of \$86,250 thousand, which represents the principal amount, excluding \$5,902 thousand of debt issuance costs. In December 2018 and February 2019, MagnaChip Semiconductor S.A. repurchased a principal amount equal to \$1,590 thousand and \$920 thousand, respectively, of the Exchangeable Notes in the open market. The Company estimates the fair value of the Exchangeable Notes using the market approach, which utilizes quoted market prices that fall under Level 2. For further description of the Exchangeable Notes, see Note 10, "Long-Term Borrowings."

On July 18, 2013, the Company issued 6.625% senior notes due July 15, 2021 (the "2021 Notes") of \$225,000 thousand, which represents the principal amount, excluding \$1,125 thousand of original issue discount and \$5,039 thousand of debt issuance costs. In December 2018 and January 2019, the Company repurchased a principal amount equal to \$500 thousand and \$250 thousand, respectively, of the 2021 Notes in the open market. The Company estimates the fair value of the 2021 Notes using the market approach, which utilizes quoted market prices that fall under Level 2. For further description of the 2021 Notes, see Note 10, "Long-Term Borrowings."

[Table of Contents](#)***Fair Values Measured on a Non-recurring Basis***

The Company's non-financial assets, such as property, plant and equipment, and intangible assets are recorded at fair value upon acquisition and are remeasured at fair value only if an impairment charge is recognized. As of September 30, 2019 and 2018, the Company did not have any assets or liabilities measured at fair value on a non-recurring basis.

10. Long-Term Borrowings

Long-term borrowings as of September 30, 2019 and December 31, 2018 are as follows (in thousands):

	September 30, 2019	December 31, 2018
5.0% Exchangeable Senior Notes due March 2021	\$ 83,740	\$ 84,660
6.625% Senior Notes due July 2021	\$ 224,250	\$ 224,500
Less: unamortized discount and debt issuance costs	(3,835)	(5,583)
Long-term borrowings, net of unamortized discount and debt issuance costs	<u>\$ 304,155</u>	<u>\$ 303,577</u>

5.0% Exchangeable Senior Notes

On January 17, 2017, MagnaChip Semiconductor S.A. closed the Exchangeable Notes Offering of \$86,250 thousand aggregate principal amount of 5.0% Exchangeable Notes. Interest on the Exchangeable Notes accrues at a rate of 5.0% per annum, payable semi-annually on March 1 and September 1 of each year, beginning on March 1, 2017. The Exchangeable Notes will mature on March 1, 2021, unless earlier repurchased or converted. Holders may convert their notes at their option at any time prior to the close of business on the business day immediately preceding the stated maturity date.

The Company used a portion of the net proceeds from the issuance to repurchase 1,795,444 shares of common stock under its stock repurchase program at an aggregate cost of \$11,401 thousand.

Upon conversion, the Company will deliver for each \$1,000 principal amount of converted notes a number of shares equally to the exchange rate, which will initially be 121.1387 shares of common stock per \$1,000 principal amount of Exchangeable Notes, equivalent to an initial exchange price of approximately \$8.26 per share of common stock. The exchange rate will be subject to adjustment in some circumstances, but will not be adjusted for any accrued and unpaid interest. In addition, if a "make-whole fundamental change" (as defined in the Exchangeable Notes indenture (the "Exchangeable Notes Indenture")) occurs prior to the stated maturity date, the Company will increase the exchange rate for a holder who elects to convert its notes in connection with such make-whole fundamental change in certain circumstances. MagnaChip Semiconductor S.A. may also, under certain circumstances, be required to pay additional amounts to holders of Exchangeable Notes if withholding or deduction is required in a relevant tax jurisdiction.

If the Company undergoes a fundamental change, subject to certain conditions, holders may require the Company to repurchase for cash all or part of their notes at a purchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change purchase date. In addition, upon certain events of default described in the Exchangeable Notes Indenture, the trustee or holders of at least 25% principal amount of the Exchangeable Notes may declare 100% of the then outstanding Exchangeable Notes due and payable in full, together with all accrued and unpaid interest thereon. Payment of principal on the Exchangeable Notes may also accelerate and become automatically due and payable upon certain events of default involving bankruptcy or insolvency proceedings involving the Company, MagnaChip Semiconductor S.A. and their significant subsidiaries. The Exchangeable Notes are not redeemable at the option of MagnaChip Semiconductor S.A. prior to the maturity date.

The Exchangeable Notes Indenture contains covenants that limit the ability of the Company, MagnaChip Semiconductor S.A. and the Company's other restricted subsidiaries to: (i) declare or pay any dividend or make any payment or distribution on account of or purchase or redeem the Company's capital stock or equity interests of the restricted subsidiaries; (ii) make any principal payment on, or redeem or repurchase, prior to any scheduled repayment or maturity, any subordinated indebtedness; (iii) make certain investments; (iv) incur additional indebtedness and issue certain types of capital stock; (v) create or incur any lien (except for permitted liens) that secures obligations under any indebtedness; (vi) merge with or into or sell all or substantially all of the Company's assets to other companies; (vii) enter into certain types of transactions with affiliates; (viii) guarantee the payment of any indebtedness; and (ix) designate unrestricted subsidiaries.

[Table of Contents](#)

These covenants are subject to a number of exceptions and qualifications. Certain of these restrictive covenants will terminate if the Exchangeable Notes are rated investment grade at any time.

The Company incurred debt issuance costs of \$5,902 thousand related to the issuance of the Exchangeable Notes. The debt issuance costs are recorded as a direct deduction from the long-term borrowings in the consolidated balance sheets and amortized to interest expense using the effective interest method over the term of the Exchangeable Notes. Interest expense related to the Exchangeable Notes for the three and nine months ended September 30, 2019 were \$1,404 thousand and \$4,206 thousand, respectively. Interest expense related to the Exchangeable Notes for the three and nine months ended September 30, 2018 were \$1,422 thousand and \$4,251 thousand, respectively.

In December 2018, the Company repurchased a principal amount equal to \$1,590 thousand of the Exchangeable Notes in the open market, resulting in a loss of \$234 thousand, which was recorded as loss on early extinguishment of long-term borrowings, net in the consolidated statements of operations for the year ended December 31, 2018. In February 2019, the Company repurchased a principal amount equal to \$920 thousand of the Exchangeable Notes in the open market, resulting in a loss of \$63 thousand, which was recorded as loss on early extinguishment of long-term borrowings, net in the consolidated statements of operations for the nine months ended September 30, 2019.

6.625% Senior Notes

On July 18, 2013, the Company issued a \$225,000,000 aggregate principal amount of the 2021 Notes at a price of 99.5%. Interest on the 2021 Notes accrues at a rate of 6.625% per annum, payable semi-annually on January 15 and July 15 of each year, beginning on January 15, 2014.

On or after July 15, 2019, the Company can optionally redeem all or a part of the 2021 Notes at a redemption price equal to 100% of the principal amount of the notes plus accrued and unpaid interest and special interest, if any, on the notes redeemed, to the applicable date of redemption.

The Indenture relating to the 2021 Notes contains covenants that limit the ability of the Company and its restricted subsidiaries to: (i) declare or pay any dividend or make any payment or distribution on account of or purchase or redeem the Company's capital stock or equity interests of the restricted subsidiaries; (ii) make any principal payment on, or redeem or repurchase, prior to any scheduled repayment or maturity, any subordinated indebtedness; (iii) make certain investments; (iv) incur additional indebtedness and issue certain types of capital stock; (v) create or incur any lien (except for permitted liens) that secures obligations under any indebtedness; (vi) merge with or into or sell all or substantially all of the Company's assets to other companies; (vii) enter into certain types of transactions with affiliates; (viii) guarantee the payment of any indebtedness; (ix) enter into sale-leaseback transactions; (x) enter into agreements that would restrict the ability of the restricted subsidiaries to make distributions with respect to their equity to the Company or other restricted subsidiaries, to make loans to the Company or other restricted subsidiaries or to transfer assets to the Company or other restricted subsidiaries; and (xi) designate unrestricted subsidiaries.

These covenants are subject to a number of exceptions and qualifications. Certain of these restrictive covenants will terminate if the 2021 Notes are rated investment grade at any time.

The Company incurred original issue discount of \$1,125 thousand and debt issuance costs of \$5,039 thousand related to the issuance of the 2021 Notes. The original issue discount and the debt issuance costs are recorded as a direct deduction from the long-term borrowings in the consolidated balance sheets and amortized to interest expense using the effective interest method over the term of the 2021 Notes. Interest expense related to the 2021 Notes for the three and nine months ended September 30, 2019 was \$3,935 thousand and \$11,794 thousand, respectively. Interest expense related to the 2021 Notes for the three and nine months ended September 30, 2018 was \$3,933 thousand and \$11,785 thousand, respectively.

In December 2018, the Company repurchased a principal amount equal to \$500 thousand of the 2021 Notes in the open market, resulting in a net gain of \$28 thousand, which was recorded as loss on early extinguishment of long-term borrowings, net in the consolidated statements of operations for the year ended December 31, 2018. In January 2019, the Company repurchased a principal amount equal to \$250 thousand of the 2021 Notes in the open market, resulting in a net gain of \$21 thousand, which was recorded as loss on early extinguishment of long-term borrowings, net in the consolidated statements of operations for the nine months ended September 30, 2019.

[Table of Contents](#)

11. Accrued Severance Benefits

The majority of accrued severance benefits are for employees in the Company's Korean subsidiary. Pursuant to the Employee Retirement Benefit Security Act of Korea, eligible employees and executive officers with one or more years of service are entitled to severance benefits upon the termination of their employment based on their length of service and rate of pay. As of September 30, 2019, 98% of employees of the Company were eligible for severance benefits.

Changes in accrued severance benefits are as follows (in thousands):

	<u>Three Months Ended</u>		<u>Three Months Ended</u>	
	<u>September 30, 2019</u>		<u>September 30, 2018</u>	
Beginning balance	\$ 146,261	\$ 149,408	\$ 146,375	\$ 149,795
Provisions	4,085	10,491	5,521	14,686
Severance payments	(1,616)	(6,195)	(3,250)	(9,004)
Translation adjustments	(5,413)	(10,387)	1,194	(5,637)
	<u>143,317</u>	<u>143,317</u>	<u>149,840</u>	<u>149,840</u>
Less: Cumulative contributions to severance insurance deposit accounts				
The National Pension Fund	(3,760)	(3,760)	(858)	(858)
Group severance insurance plan	(211)	(211)	(236)	(236)
	<u>(552)</u>	<u>(552)</u>	<u>(598)</u>	<u>(598)</u>
Accrued severance benefits, net	\$ <u>138,794</u>	\$ <u>138,794</u>	\$ <u>148,148</u>	\$ <u>148,148</u>

The severance benefits funded through the Company's National Pension Fund and group severance insurance plan will be used exclusively for payment of severance benefits to eligible employees. These amounts have been deducted from the accrued severance benefit balance.

Beginning in July 2018, the Company has contributed a certain percentage of severance benefits, accrued for eligible employees for their services from January 1, 2018, to certain severance insurance deposit accounts. These accounts consist of time deposits and other guaranteed principal and interest, and are maintained at insurance companies, banks or security companies for the benefit of employees. The Company deducts the contributions made to these severance insurance deposit accounts from its accrued severance benefits.

The Company is liable to pay the following future benefits to its non-executive employees upon their normal retirement age (in thousands):

	<u>Severance benefit</u>
Remainder of 2019	\$ 551
2020	1,018
2021	1,485
2022	1,243
2023	1,679
2024	2,531
2025 – 2029	33,706

The above amounts were determined based on the non-executive employees' current salary rates and the number of service years that will be accumulated upon their retirement dates. These amounts do not include amounts that might be paid to non-executive employees that will cease working with the Company before their normal retirement ages.

Korea's mandatory retirement age is 60 under the Employment Promotion for the Aged Act.

12. Foreign Currency Gain (Loss), Net

Net foreign currency gain or loss includes non-cash translation gain or loss associated with intercompany balances. A substantial portion of the Company's net foreign currency gain or loss is non-cash translation gain or loss associated with intercompany long-term loans to our Korean subsidiary. The loans are denominated in U.S. dollars and are affected by changes in the exchange rate between the Korean won and the U.S. dollar. As of September 30, 2019 and December 31, 2018, the outstanding intercompany loan balances including accrued interest between the Korean subsidiary and the Dutch subsidiary were \$679,585 thousand and \$666,597 thousand, respectively. The Korean won to U.S. dollar exchange rates were 1,201.3:1, 1,118.1:1 using the first base rate as of September 30, 2019 and December 31, 2018, respectively, as quoted by the KEB Hana Bank.

13. Income Taxes

The Company files income tax returns in the U.S., Korea, Japan, Taiwan and various other jurisdictions. The Company is subject to income- or non-income-based tax examinations by tax authorities of the U.S., Korea and multiple other foreign jurisdictions, where applicable, for all open tax years.

Income tax expense recorded for the three and nine months ended September 30, 2019 was \$1,454 thousand and \$3,107 thousand, respectively. Income tax expense recorded for the three and nine months ended September 30, 2018 was \$1,608 thousand and \$4,119 thousand, respectively. Income tax expense was recorded for the Company's Korean subsidiary based on the estimated taxable income for the respective periods, combined with its ability to utilize net operating loss carryforwards up to 70% in 2018 and 60% in 2019.

On December 22, 2017, H.R. 1, originally known as the Tax Cuts and Jobs Act, was enacted in the U.S. (the "Tax Reform Act"). The Tax Reform Act reduces the U.S. federal statutory rate to 21.0% from 35.0% effective January 1, 2018. The Tax Reform Act contains several key provisions, including global intangible low tax income and foreign derived intangible income provisions. For the year ended December 31, 2018, the Company analyzed the mandatory deemed repatriation tax and concluded that the Company has no tax liability on previously untaxed accumulated earnings and profits of its foreign subsidiaries. Based on the review of the additional guidance and proposed regulations issued during the third quarter of 2019, there was no significant impact on the Company's consolidated financial statements for the nine months ended September 30, 2019.

[Table of Contents](#)

14. Geographic and Segment Information

The Company has two operating segments: its Foundry Services Group and Standard Products Group. The Company's chief operating decision maker is its Chief Executive Officer, who allocates resources and assesses performance of the business and other activities based on gross profit.

The following sets forth information relating to the operating segments (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Net Sales				
Foundry Services Group	\$ 90,340	\$ 83,862	\$ 220,513	\$ 242,198
Standard Products Group				
Display Solutions	90,550	77,578	233,041	205,986
Power Solutions	48,690	44,458	138,443	123,153
Total Standard Products Group	139,240	122,036	371,484	329,139
All other	97	102	205	167
Total net sales	<u>\$ 229,677</u>	<u>\$ 206,000</u>	<u>\$ 592,202</u>	<u>\$ 571,504</u>
	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Gross Profit				
Foundry Services Group	\$ 25,547	\$ 20,443	\$ 41,361	\$ 63,292
Standard Products Group	35,222	35,204	85,842	90,874
All other	97	102	204	18
Total gross profit	<u>\$ 60,866</u>	<u>\$ 55,749</u>	<u>\$ 127,407</u>	<u>\$ 154,184</u>

The Company's revenue for Foundry Services Group is disaggregated depending on the timing of revenue recognition (in thousands):

	Three Months Ended September 30, 2019			Nine Months Ended September 30, 2019		
	Revenue recognized at the time of shipment or delivery	Revenue recognized over time	Total	Revenue recognized at the time of shipment or delivery	Revenue recognized over time	Total
Net Sales						
Foundry Services Group	\$ 43,328	\$ 47,012	\$90,340	\$ 102,888	\$ 117,625	\$220,513
	Three Months Ended September 30, 2018			Nine Months Ended September 30, 2018		
	Revenue recognized at the time of shipment or delivery	Revenue recognized over time	Total	Revenue recognized at the time of shipment or delivery	Revenue recognized over time	Total
Net Sales						
Foundry Services Group	\$ 26,257	\$ 57,605	\$83,862	\$ 52,024	\$ 190,174	\$242,198

[Table of Contents](#)

The following is a summary of net sales by geographic region, based on the location to which the products are billed (in thousands):

	Three Months Ended	
	September 30, 2019	September 30, 2018
Korea	\$ 70,965	\$ 91,570
Asia Pacific (other than Korea)	138,125	93,475
U.S.A.	7,182	5,831
Europe	12,916	14,444
Others	489	680
Total	<u>\$ 229,677</u>	<u>\$ 206,000</u>

	Nine Months Ended	
	September 30, 2019	September 30, 2018
Korea	\$ 190,839	\$ 204,319
Asia Pacific (other than Korea)	342,413	302,906
U.S.A.	20,784	29,242
Europe	36,935	33,041
Others	1,231	1,996
Total	<u>\$ 592,202</u>	<u>\$ 571,504</u>

For the three months ended September 30, 2019 and 2018, of the Company's net sales in Asia Pacific (other than Korea), net sales in Greater China (China, Hong Kong and Macau) represented 73.4% and 64.1%, respectively, and net sales in Taiwan represented 22.3% and 29.7%, respectively.

For the nine months ended September 30, 2019 and 2018, of the Company's net sales in Asia Pacific (other than Korea), net sales in Greater China (China, Hong Kong and Macau) represented 75.9% and 67.6%, respectively, and net sales in Taiwan represented 20.4% and 25.8%, respectively.

Net sales from the Company's top ten largest customers accounted for 69% and 65% for the three months ended September 30, 2019 and 2018, respectively, and 68% and 62% for the nine months ended September 30, 2019 and 2018, respectively.

For the three months ended September 30, 2019, the Company had one customer that represented 34.0% of its net sales, and for the nine months ended September 30, 2019, the Company had one customer that represented 33.0% of its net sales.

For the three months ended September 30, 2018, the Company had two customers that represented 18.8% and 17.6% of its net sales, respectively, and for the nine months ended September 30, 2018, the Company had two customers that represented 21.6% and 13.0% of its net sales, respectively.

98% of the Company's property, plant and equipment are located in Korea as of September 30, 2019.

[Table of Contents](#)

15. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) consists of the following as of September 30, 2019 and December 31, 2018, respectively (in thousands):

	September 30, 2019	December 31, 2018
Foreign currency translation adjustments	\$ 10,854	\$ (20,061)
Derivative adjustments	(2,199)	(49)
Total	\$ 8,655	\$ (20,110)

Changes in accumulated other comprehensive income (loss) for the three months ended September 30, 2019 and 2018 are as follows (in thousands):

	Foreign currency translation adjustments	Derivative adjustments	Total
Three Months Ended September 30, 2019			
Beginning balance	\$ (5,077)	\$ (996)	\$ (6,073)
Other comprehensive income (loss) before reclassifications	15,931	(2,803)	13,128
Amounts reclassified from accumulated other comprehensive loss	—	1,600	1,600
Net current-period other comprehensive income (loss)	15,931	(1,203)	14,728
Ending balance	<u>\$ 10,854</u>	<u>\$ (2,199)</u>	<u>\$ 8,655</u>

	Foreign currency translation adjustments	Derivative adjustments	Total
Three Months Ended September 30, 2018			
Beginning balance	\$ (18,780)	\$ (1,279)	\$ (20,059)
Other comprehensive income (loss) before reclassifications	(3,827)	1,046	(2,781)
Amounts reclassified from accumulated other comprehensive loss	—	140	140
Net current-period other comprehensive income (loss)	(3,827)	1,186	(2,641)
Ending balance	<u>\$ (22,607)</u>	<u>\$ (93)</u>	<u>\$ (22,700)</u>

Changes in accumulated other comprehensive income (loss) for the nine months ended September 30, 2019 and 2018 are as follows (in thousands):

	Foreign currency translation adjustments	Derivative adjustments	Total
Nine Months Ended September 30, 2019			
Beginning balance	\$ (20,061)	\$ (49)	\$ (20,110)
Other comprehensive income (loss) before reclassifications	30,915	(5,703)	25,212
Amounts reclassified from accumulated other comprehensive loss	—	3,553	3,553
Net current-period other comprehensive income (loss)	30,915	(2,150)	28,765
Ending balance	<u>\$ 10,854</u>	<u>\$ (2,199)</u>	<u>\$ 8,655</u>

	Foreign currency translation adjustments	Derivative adjustments	Total
Nine Months Ended September 30, 2018			
Beginning balance	\$ (38,413)	\$ 5,299	\$ (33,114)
Other comprehensive income (loss) before reclassifications	15,806	(891)	14,915
Amounts reclassified from accumulated other comprehensive income	—	(4,501)	(4,501)
Net current-period other comprehensive income (loss)	15,806	(5,392)	10,414
Ending balance	<u>\$ (22,607)</u>	<u>\$ (93)</u>	<u>\$ (22,700)</u>

There was no income tax impact related to changes in accumulated other comprehensive income (loss) for the nine months ended September 30, 2019 and 2018 due to net operating loss carry-forwards available to offset taxable income and full allowance for deferred tax assets.

[Table of Contents](#)

16. Earnings (Loss) per Share

The following table illustrates the computation of basic and diluted earnings (loss) per common share for the three and nine months ended September 30, 2019 and 2018:

	Three Months Ended	
	September 30, 2019	September 30, 2018
(In thousands of US dollars, except share data)		
Basic Earnings (Loss) per Share		
Net income (loss)	\$ (1,607)	\$ 17,222
Basic weighted average common stock outstanding	34,357,745	34,573,377
Basic earnings (loss) per share	\$ (0.05)	\$ 0.50
Diluted Earnings (Loss) per Share		
Net income (loss)	\$ (1,607)	\$ 17,222
Add back: Interest expense on Exchangeable Notes	—	1,422
Net income (loss) allocated to common stockholders	\$ (1,607)	\$ 18,644
Basic weighted average common stock outstanding	34,357,745	34,573,377
Net effect of dilutive equity awards	—	1,000,020
Net effect of assumed conversion of 5.0% Exchangeable Notes to common stock	—	10,448,213
Diluted weighted average common stock outstanding	34,357,745	46,021,610
Diluted earnings (loss) per share	\$ (0.05)	\$ 0.41

	Nine Months Ended	
	September 30, 2019	September 30, 2018
(In thousands of US dollars, except share data)		
Basic and Diluted Loss per Share		
Net loss	\$ (45,252)	\$ (1,520)
Basic and diluted weighted average common stock outstanding	34,266,513	34,416,887
Basic and diluted loss per share	\$ (1.32)	\$ (0.04)

The following outstanding instruments were excluded from the computation of diluted earnings (loss) per share, as they have an anti-dilutive effect on the calculation:

	Three Months Ended		Nine Months Ended	
	September 30, 2019	September 30, 2018	September 30, 2019	September 30, 2018
Options	2,479,423	723,117	2,479,423	2,684,558
Restricted Stock Units	592,967	—	592,967	581,759

For the three months ended September 30, 2019, 10,144,155, for the nine months ended September 30, 2019, 10,156,810, and for the nine months ended September 30, 2018, 10,448,213, of potential common stock from the assumed conversion of Exchangeable Notes were excluded from the computation of diluted loss per share as the effect was anti-dilutive for the periods.

17. Commitments and Contingencies

Long-term Purchase Agreements and Advances to Suppliers

The Company purchases raw materials from a variety of vendors. During the normal course of business, in order to manage manufacturing lead times and help assure adequacy supply, the Company from time to time may enter into multi-year purchase agreements, which specify future quantities and pricing of materials to be supplied by the vendors. The Company reviews the terms of the long-term supply agreements and assesses the need for any accrual for estimated losses, such as lower of cost or net realizable value that will not be recovered by future sales prices. No such accrual was required as of September 30, 2019 and December 31, 2018, respectively.

The Company, from time to time, may make prepayments to suppliers to procure materials to meet its planned production. The Company recorded prepayments of \$5,847 thousand and \$8,132 thousand as other current assets as of September 30, 2019 and December 31, 2018, respectively.

FORWARD LOOKING STATEMENTS

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 27A of the Securities Act of 1933, as amended, that involve risks and uncertainties. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify these statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as “anticipate,” “estimate,” “expect,” “project,” “intend,” “plan,” “believe” and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. All statements other than statements of historical facts included in this report that address activities, events or developments that we expect, believe or anticipate will or may occur in the future are forward-looking statements.

These forward-looking statements are largely based on our expectations and beliefs concerning future events, which reflect estimates and assumptions made by our management. These estimates and assumptions reflect our best judgment based on currently known market conditions and other factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. Although we believe our estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control. In addition, management’s assumptions about future events may prove to be inaccurate. Management cautions all readers that the forward-looking statements contained in this report are not guarantees of future performance, and we cannot assure any reader that those statements will be realized or the forward-looking events and circumstances will occur. Actual results may differ materially from those anticipated or implied in the forward-looking statements due to the factors listed in this section, in “Part II: Item 1A. Risk Factors” herein and in “Part I: Item 1A. Risk Factors” in our Annual Report on Form 10-K filed on February 22, 2019 (“2018 Form 10-K”).

All forward-looking statements speak only as of the date of this report. We do not intend to publicly update or revise any forward-looking statements as a result of new information or future events or otherwise, except as required by law. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

Statements made in this Quarterly Report on Form 10-Q (this “Report”), unless the context otherwise requires, that include the use of the terms “we,” “us,” “our” and “MagnaChip” refer to MagnaChip Semiconductor Corporation and its consolidated subsidiaries. The term “Korea” refers to the Republic of Korea or South Korea.

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with the unaudited consolidated financial statements and the related notes included elsewhere in this Report.

Overview

We are a designer and manufacturer of analog and mixed-signal semiconductor platform solutions for communications, IoT, consumer, industrial and automotive applications. We provide technology platforms for analog, mixed-signal, power, high voltage, non-volatile memory, and radio frequency applications. We have a proven record with about 40 years of operating history, a portfolio of approximately 3,000 registered patents and pending applications and extensive engineering and manufacturing process expertise.

We have two operation segments: our Foundry Services Group and our Standard Products Group. Our Foundry Services Group provides specialty analog and mixed-signal foundry services mainly for fabless and IDM semiconductor companies that primarily serve communications, IoT, consumer, industrial and automotive applications. Our Standard Products Group includes our Display Solutions and Power Solutions business lines. Our Display Solutions products provide flat panel display solutions to major suppliers of large and small rigid and flexible panel displays, and mobile, automotive applications and home appliances. Our Power Solutions products include discrete and integrated circuit solutions for power management in communications, consumer, computing and industrial applications.

Our wide variety of analog and mixed-signal semiconductor products and manufacturing services combined with our mature technology platform allow us to address multiple high-growth end markets and to rapidly develop and introduce new products and services in response to market demands. Our design center and substantial manufacturing operations in Korea place us at the core of the global electronics device supply chain. We believe this enables us to quickly and efficiently respond to our customers’ needs and allows us to better serve and capture additional demand from existing and new customers.

To maintain and increase our profitability, we must accurately forecast trends in demand for electronics devices that incorporate semiconductor products we produce. We must understand our customers’ needs as well as the likely end market trends and demand in the markets they serve. We must balance the likely manufacturing utilization demand of our product businesses and foundry business to optimize our capacity utilization. We must also invest in relevant research and development activities and manufacturing capacity and purchase necessary materials on a timely basis to meet our customers’ demand while maintaining our target margins and cash flow.

The semiconductor markets in which we participate are highly competitive. The prices of our products tend to decrease regularly over their useful lives, and such price decreases can be significant as new generations of products are introduced by us or our competitors. We strive to offset the impact of declining selling prices for existing products through cost reductions and the introduction of new products that command selling prices above the average selling price of our existing products. In addition, we seek to manage our inventories and manufacturing capacity so as to mitigate the risk of losses from product obsolescence.

Demand for our products and services is driven by overall demand for communications, IoT, consumer, industrial and automotive products and can be adversely affected by periods of weak consumer and enterprise spending or by market share losses by our customers. In order to mitigate the impact of market volatility on our business, we are diversifying our portfolio of products, customers, and target applications. We also expect that new competitors will emerge in these markets that may place increased pressure on the pricing for our products and services. While we believe we are well positioned competitively to compete in these markets and against these new competitors as a result of our long operating history, existing manufacturing capacity and our worldwide customer base, if we are not effective in competing in these markets, our operating results may be adversely affected.

Within our Foundry Services Group, net sales are driven by customers’ decisions on which manufacturing services provider to use for a particular product. Most of our Foundry Services Group customers are fabless, while some are IDM customers. A customer will often have more than one supplier of manufacturing services. In any given period, our net sales depend heavily upon the end-market demand for the goods in which the products we manufacture for customers are used, the inventory levels maintained by our customers and in some cases, allocation of demand for manufacturing services among selected qualified suppliers.

Within our Standard Products Group, net sales are driven by design wins in which we are selected by an electronics original equipment manufacturer (“OEM”) or other potential customer to supply its demand for a particular product. A customer will often have more than one supplier designed in to multi-source components for a particular product line. Once we have design wins and the products enter into mass production, we often specify the pricing of a particular product for a set period of time, with periodic discussions and renegotiations of pricing with our customers. In any given period, our net sales depend heavily upon the end-market demand for the goods in which our products are used, the inventory levels maintained by our customers and in some cases, allocation of demand for components for a particular product among selected qualified suppliers.

[Table of Contents](#)

In contrast to completely fabless semiconductor companies, our internal manufacturing capacity provides us with greater control over manufacturing costs and the ability to implement process and production improvements for our internally manufactured products, which can favorably impact gross profit margins. Our internal manufacturing capacity also allows for better control over delivery schedules, improved consistency over product quality and reliability and improved ability to protect intellectual property from misappropriation on these products. However, having internal manufacturing capacity exposes us to the risk of under-utilization of manufacturing capacity that results in lower gross profit margins, particularly during downturns in the semiconductor industry.

Our products and services require investments in capital equipment. Analog and mixed-signal manufacturing facilities and processes are typically distinguished by the design and process implementation expertise rather than the use of the most advanced equipment. Many of these processes also tend to migrate more slowly to smaller geometries due to technological barriers and increased costs. For example, some of our products use high-voltage technology that requires larger geometries and that may not migrate to smaller geometries for several years, if at all. As a result, our manufacturing base and strategy do not require substantial investment in leading edge process equipment for those products, allowing us to utilize our facilities and equipment over an extended period of time with moderate required capital investments. In addition, we are less likely to experience significant industry overcapacity, which can cause product prices to decline significantly. In general, we seek to invest in manufacturing capacity that can be used for multiple high-value applications over an extended period of time. In addition, we outsource manufacturing of those products which do require advanced technology and 12-inch wafer capacity. We believe this capital investment strategy enables us to optimize our capital investments and facilitates more diversified product and service offerings.

Since 2007, we have designed and manufactured organic light emitting diodes (“OLED”) display driver integrated circuits (“ICs”) in our internal manufacturing facilities. As we expanded our design capabilities to products that require lower geometries unavailable at our existing manufacturing facilities, we began outsourcing manufacturing of certain OLED display driver ICs to an external foundry from the second half of 2015. This additional source of manufacturing is an increasingly important part of our supply chain management. By outsourcing manufacturing of advanced OLED products to external foundries, we are able to dynamically adapt to the changing customer requirements and address growing markets without substantial capital investments by us. Both at the internal manufacturing facilities and external foundries, we apply our unique OLED process patents as well as other intellectual property, proprietary process design kits and custom design-flow methodologies.

Our success going forward will depend upon our ability to adapt to future challenges such as the emergence of new competitors for our products and services or the consolidation of current competitors. Additionally, we must innovate to remain ahead of, or at least rapidly adapt to, technological breakthroughs that may lead to a significant change in the technology necessary to deliver our products and services. We believe that our established relationships and close collaboration with leading customers enhance our awareness of new product opportunities, market and technology trends and improve our ability to adapt and grow successfully. In our Foundry Services Group, we strive to maintain competitiveness by offering high-value added processes, high-flexibility and excellent service by tailoring existing standard processes to meet customers’ design needs and porting customers’ own process technologies into our fabrication facilities.

[Table of Contents](#)

Recent Developments

Strategic Evaluation

On February 14, 2019, we announced that we have undertaken a strategic evaluation of our Foundry Services Group business and the fabrication facility located in Cheongju ("Fab 4"), the larger of our two 8-inch manufacturing facilities. Fab 4 is an analog and mixed-signal fab that produces approximately 73% of our total capacity, and is used primarily to meet wafer demand from customers of our Foundry Services Group that rely on outside suppliers. Certain customer products of our Foundry Service Group are currently manufactured in our smaller 8-inch fabrication facility in Gumi. We have engaged J.P. Morgan Securities LLC as our financial advisor to assist in the evaluation and we have also retained legal advisors to assist in the evaluation. For the nine months ended September 30, 2019, we recorded \$2.6 million in legal and consulting service fees incurred in connection with the strategic evaluation and recorded such costs as restructuring and other charges in our consolidated statements of operations.

Repurchase of Long-term Borrowings

In December 2018, we repurchased a principal amount of \$0.5 million and \$1.6 million of the 2021 Notes and the Exchangeable Notes, respectively. As a result, we recorded a \$0.2 million net loss as early extinguishment loss on our consolidated statements of operations for the year ended December 31, 2018.

In January and February 2019, we additionally repurchased a principal amount of \$0.3 million and \$0.9 million of the 2021 Notes and the Exchangeable Notes, respectively. As a result, we recorded a \$0.04 million net loss as early extinguishment loss on our consolidated statements of operations for the three months ended March 31, 2019.

Water Treatment Facility Arrangement

On June 29, 2018, we entered into an arrangement whereby we acquired a water treatment facility to support our fabrication facility in Gumi, Korea from SK hynix for \$4.2 million, and sold it for \$4.2 million to a third party management company that we have engaged to run the facility for a 10-year term. This arrangement is accounted for as a financing due to our Korean subsidiary's continuing involvement with the facility. As a result, on the acquisition date, we recorded the water treatment facility of \$4.2 million as property, plant and equipment, net, which is depreciated over its useful life. We also recorded the related liabilities of \$0.6 million as other current liabilities and \$3.6 million as other non-current liabilities, which relates to the financing and service portion of the arrangement and is amortized using the effective interest method over the contract period.

Tax Audit

In September 2017, MagnaChip Semiconductor Ltd. ("MSK"), our Korean operating subsidiary, was notified that the Korean National Tax Service (the "KNTS") would be examining the income- and non-income-based taxes of MSK for its 2012 to 2014 tax years. The KNTS had conducted its audit, primarily focusing on non-income-based value added tax ("VAT") transactions associated with the periods with respect to which we previously restated our financial statements as a result of the independent investigation commenced by our Audit Committee in January 2014 (the "Restatement").

As a result, the aggregate tax and penalty assessment by the KNTS was \$6.0 million, of which \$3.3 million had already been accrued by us in our financial statements in connection with the Restatement filed in 2015. Such amount also included approximately \$0.5 million related to employee withholding amounts and associated penalties, and to the extent any such tax obligation was that of MSK's employees. In addition, KNTS assessed an administrative fine of \$2.0 million in connection with the above-described tax audit.

In December 2017, the KNTS concluded that no criminal charges would be brought against any current officers or directors of MSK or MSK itself. As a result, we took a charge of \$4.2 million in the fourth quarter of 2017 related to this additional tax assessment and associated penalties and administrative fine. We recorded the \$0.5 million related to employee withholding amounts as other receivables in our consolidated balance sheets as of December 31, 2017, as we expected to obtain reimbursement of the applicable amounts from those employees. Of the \$0.5 million, we have collected \$0.1 million and established an allowance of \$0.4 million.

Secondary offering

On August 15, 2017, certain of our stockholders that are affiliates of Avenue Capital Management II, L.P. (the "Selling Stockholders") closed an underwritten registered public offering of 4,088,978 shares of our common stock at a price per share of \$11.10. We did not receive any proceeds from the sale of our common stock by the Selling Stockholders, but paid certain expenses in connection with such secondary offering pursuant to an existing contractual arrangement with the Selling Stockholders.

[Table of Contents](#)

Events associated with the closure of our 6-inch fab and reduction of workforce

In December 2014, we announced that our Board of Directors had adopted a plan to close our 6-inch fab. During the fourth quarter of 2015, we received an \$8.2 million deposit for sale of machinery in conjunction with the planned closure of our 6-inch fab. According to this plan, the 6-inch fab was closed on February 29, 2016. During the first quarter of 2016, we completed all procedures necessary to sell all machineries in our closed 6-inch fab and recognized a \$7.8 million restructuring gain from the related deposit of \$8.2 million, net of certain direct selling costs. On April 4, 2016, we commenced a voluntary resignation program (the “Program”), which was available to certain manufacturing employees, including our 6-inch fab employees, through April 29, 2016.

As of April 29, 2016, 169 employees elected to resign under the terms of the Program. We paid approximately \$8 million for severance benefits, which are required by law and had already been fully accrued in our financial statements, in a lump sum during the second quarter of 2016. Beginning in May 2016, we also began to pay a portion of the \$4.2 million other termination benefits under the Program, which were paid in equal monthly installments over twelve months. We recorded the \$4.2 million charge related to the full amount of these other termination benefits payable under the Program during the second quarter of 2016.

As of December 21, 2016, we entered into a purchase and sale agreement to sell a building located in Cheongju, South Korea. The building has historically been used to house the 6-inch fab and became vacant upon the closure of the fabrication facility. As of December 31, 2015, the building was fully impaired. We received proceeds of \$18.2 million, including a \$1.7 million value-added tax, for the sale of the building on December 26, 2016. We recorded the \$18.2 million as restricted cash in our consolidated balance sheets as of December 31, 2016 as we were obligated to perform certain removal construction work that was expected to be completed by the end of March 2017. During the first quarter of 2017, we completed all removal construction work necessary to transfer the title of the building, and the \$18.2 million of restricted cash was fully released.

As of February 22, 2017, our Board of Directors approved the implementation of a headcount reduction plan (the “Headcount Reduction Plan”). As of June 30, 2017, 352 employees elected to resign from the Company during the period in which the Headcount Reduction Plan was offered. The Headcount Reduction Plan is expected to result in estimated annual cost savings of approximately \$24 million. The total cash cost of approximately \$31 million has been fully paid. We recorded in our consolidated statement of operations \$11.1 million and \$2.3 million termination related charges as “early termination charges” for the three months ended March 31, 2017 and June 30, 2017, respectively. The remaining total cost relates to statutory severance benefits, which are required by law and had already been fully accrued in our financial statements.

Issuance of Exchangeable Senior Notes and Stock Repurchase

As of January 17, 2017, we closed the offering (the “Exchangeable Notes Offering”) by our Luxembourg subsidiary, MagnaChip Semiconductor S.A., of \$86.25 million aggregate principal amount of its 5.00% Exchangeable Senior Notes due 2021 (the “Exchangeable Notes”), reflecting the full exercise of the initial purchasers’ option to purchase additional Exchangeable Notes. We used a portion of the net proceeds from the Exchangeable Notes Offering to repurchase 1,795,444 shares of our common stock under our stock repurchase program, which was authorized by our board of directors on January 10, 2017, at an aggregate cost of \$11.4 million.

Sale of Sensor Business

In March 2017, we sold our sensor product business, which was included in and reported as part of the Display Solutions line of our Standard Products Group, to a third party for proceeds of \$1.3 million, in an effort to improving our overall profitability. We recorded a \$0.4 million gain from this sale after deducting the book values of certain assets transferred to the buyer.

Restatement

In January 2014, our Audit Committee commenced an independent investigation that resulted in the Restatement. In March, 2014, we voluntarily reported to the SEC that our Audit Committee had determined that we incorrectly recognized revenue on certain transactions and as a result would restate our financial statements, and that our Audit Committee had commenced an independent investigation.

On December 10, 2015, we entered into a Memorandum of Understanding with the plaintiffs’ representatives to settle the Class Action Litigation, as defined and detailed in “Item 8. Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements—Note 18. Commitments and Contingencies” in our 2018 Form 10-K, for an aggregate settlement payment of \$23.5 million. This settlement payment was fully funded by insurance proceeds that were received in the first quarter of 2016 and disbursed from the escrow account, previously recorded as restricted cash, in the third quarter of 2016.

[Table of Contents](#)

On January 22, 2016, we entered into a stipulation of settlement with the plaintiffs in the shareholder derivative actions, as described in “Item 8. Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements—Note 18. Commitments and Contingencies” in our 2018 Form 10-K, for an aggregate payment of \$3.0 million from our insurance proceeds that were received in the first quarter of 2016 and recorded in the escrow account. In October 2016, the court approved the settlement of the shareholder derivative actions for \$3.0 million, which included \$0.75 million awarded to plaintiffs’ counsel. Upon the expiration of the appeals period, \$2.25 million was disbursed from the escrow account, previously recorded as restricted cash, in December 2016. The remaining restricted cash related to insurance proceeds of \$3.1 million was also released in December 2016.

On May 1, 2017, the SEC announced that it had reached a final settlement with us, resolving the SEC’s investigation, as detailed in “Item 8. Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements—Note 18. Commitments and Contingencies” in our 2018 Form 10-K. In connection therewith, we have consented, without admitting or denying the SEC’s findings, to the entry of an administrative order by the SEC directing that we cease and desist from committing or causing any violations of certain provisions of the federal securities laws and related SEC regulations. The SEC’s administrative order was entered on May 1, 2017. The SEC imposed a monetary penalty of \$3.0 million on us. In the three months ended March 31, 2017, we established a reserve in that amount for the potential settlement of this matter and recorded it as selling, general and administrative expense in the consolidated statements of operations for the three months ended March 31, 2017. The reserved monetary penalty of \$3.0 million was paid to the SEC during the three months ended June 30, 2017.

As a result of the Restatement, we incurred substantial external accounting, legal and other related costs associated with the Restatement and certain litigation and other regulatory investigations and actions related thereto. We recorded Restatement related costs of \$10.3 million for the year ended December 31, 2017, which included tax assessment, and associated penalties of \$4.3 million, primarily related to non-income-based VAT transactions in the Restatement periods, compared to \$7.0 million of Restatement related costs for the year ended December 31, 2016. For the three months March 31, 2018, the reversal of a \$0.8 million accrual related to certain legal fees, incurred in prior periods and reimbursed by insurers, was recorded as a Restatement related gain.

[Table of Contents](#)

Segments

We report our financial results in two operating segments: Foundry Services Group and Standard Products Group. We identified these segments based on how we allocate resources and assess our performance.

In January 2018, as part of our ongoing portfolio optimization effort to realign business processes and streamline our organizational structure, we transferred a portion of our non-OLED display solutions business from our Standards Products Group to our Foundry Services Group. The transferred non-OLED display business has technical and business characteristics more closely aligned with our Foundry Services business than with our Standard Products business, which resided within our Display solutions business line primarily as a result of a long standing customer relationship established many years ago.

- **Foundry Services Group:** Our Foundry Services Group provides specialty analog and mixed-signal foundry services to fabless semiconductor companies and IDMs that serve communications, IoT, consumer, industrial and automotive applications. We manufacture wafers based on our customers' product designs. We do not market these products directly to end customers but rather supply manufactured wafers and products to our customers to market to their end customers. We offer 492 process flows to our foundry services customers. We also often partner with key customers to jointly develop or customize specialized processes that enable our customers to improve their products and allow us to develop unique manufacturing expertise. Our foundry services target customers who require differentiated, specialty analog and mixed-signal process technologies such as high voltage complementary metal-oxide-semiconductor ("CMOS"), non-volatile memory or bipolar-CMOS-DMOS ("BCD"). These customers typically serve the consumer, computing, communication, industrial, automotive and IoT applications. Our Foundry Services Group business represented 37.2% and 42.4% of our net sales for the nine months ended September 30, 2019 and September 30, 2018, respectively. Gross profit from our Foundry Services Group business was \$41.4 million and \$63.3 million for the nine months ended September 30, 2019 and September 30, 2018, respectively.
- **Standard Products Group:** Our Standard Products Group includes our Display Solutions and Power Solutions business lines. Our Display Solutions products include source, gate drivers, timing controllers, and one-chip integrated solutions that cover a wide range of panel displays used in ultra high definition ("UHD"), high definition ("HD"), light emitting diode ("LED"), 3D and OLED televisions public displays, notebooks, mobile communications, entertainment devices and automotive applications. Our Display Solutions products support the industry's most advanced display technologies, such as OLEDs, and low temperature polysilicons ("LTPS"), as well as high-volume display technologies such as thin film transistors ("TFT"). Since 2007, we have designed and manufactured OLED display driver IC products. Our current portfolio of OLED solutions address a wide range of resolutions ranging from HD to Wide Quad High Definition ("WQHD") for applications including smartphones, TVs, and other mobile devices. We believe we have a unique intellectual property portfolio and mixed-signal design and manufacturing expertise in the OLED industry. Our Power Solutions business line produces power management semiconductor products including discrete and integrated circuit solutions for power management in high-volume consumer applications. These products include metal oxide semiconductor field effect transistors ("MOSFETs"), insulated-gate bipolar transistors ("IGBTs"), AC-DC converters, DC-DC converters, LED drivers, switching regulators and linear regulators for a range of devices, including televisions, smartphones, mobile phones, desktop PCs, notebooks, tablet PCs, other consumer electronics, and industrial applications such as power suppliers, LED lighting, motor control and home appliances. Our Standard Products Group, which includes our Display Solutions and Power Solutions business lines, represented 62.7% and 57.6% of our net sales for the nine months ended September 30, 2019 and September 30, 2018, respectively. Gross profit from our Standard Products Group was \$85.8 million and \$90.9 million for the nine months ended September 30, 2019 and September 30, 2018, respectively.

Explanation and Reconciliation of Non-US GAAP Measures

Adjusted EBITDA and Adjusted Net Income

We use the terms Adjusted EBITDA and Adjusted Net Income throughout this Report. Adjusted EBITDA, as we define it, is a non-US GAAP measure. We define Adjusted EBITDA for the periods indicated as EBITDA (as defined below), adjusted to exclude (i) restructuring and other charges, (ii) equity-based compensation expense, (iii) foreign currency loss (gain), net, (iv) derivative valuation loss, net, (v) restatement related gain, (vi) loss on early extinguishment of long-term borrowings, net and (vii) others. EBITDA for the periods indicated is defined as net income (loss) before interest expense, net, income tax expense, and depreciation and amortization.

See the footnotes to the table below for further information regarding these items. We present Adjusted EBITDA as a supplemental measure of our performance because:

- we believe that Adjusted EBITDA, by eliminating the impact of a number of items that we do not consider to be indicative of our core ongoing operating performance, provides a more comparable measure of our operating performance from period-to-period and may be a better indicator of future performance;
- we believe that Adjusted EBITDA is commonly requested and used by securities analysts, investors and other interested parties in the evaluation of the Company as an enterprise level performance measure that eliminates the effects of financing, income taxes and the accounting effects of capital spending, as well as other one time or recurring items described above; and
- we believe that Adjusted EBITDA is useful for investors, among other reasons, to assess the Company's period-to-period core operating performance and to understand and assess the manner in which management analyzes operating performance.

We use Adjusted EBITDA in a number of ways, including:

- for planning purposes, including the preparation of our annual operating budget;
- to evaluate the effectiveness of our enterprise level business strategies;
- in communications with our Board of Directors concerning our consolidated financial performance; and
- in certain of our compensation plans as a performance measure for determining incentive compensation payments.

We encourage you to evaluate each adjustment and the reasons we consider them appropriate. In evaluating Adjusted EBITDA, you should be aware that in the future we may incur expenses similar to the adjustments in this presentation. Adjusted EBITDA is not a measure defined in accordance with US GAAP and should not be construed as an alternative to income from continuing operations, cash flows from operating activities or net income, as determined in accordance with US GAAP. A reconciliation of net income to Adjusted EBITDA is as follows:

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
	(In millions)			
Net income (loss)	\$ (1.6)	\$ (45.3)	\$ 17.2	\$ (1.5)
Interest expense, net	5.0	15.1	5.1	15.2
Income tax expense	1.5	3.1	1.6	4.1
Depreciation and amortization	8.2	24.7	7.9	23.9
EBITDA	\$ 13.0	\$ (2.4)	\$ 31.8	\$ 41.7
Adjustments:				
Restructuring and other charges(a)	0.8	4.8	—	—
Equity-based compensation expense(b)	0.5	1.9	1.1	3.1
Foreign currency loss (gain), net(c)	21.2	41.6	(6.0)	20.1
Derivative valuation loss, net(d)	0.0	0.2	0.5	2.2
Restatement related gain(e)	—	—	—	(0.8)
Loss on early extinguishment of long-term borrowings, net(f)	—	0.0	—	—
Others(g)	—	0.6	0.5	0.5
Adjusted EBITDA	<u>\$ 35.5</u>	<u>\$ 46.8</u>	<u>\$ 27.9</u>	<u>\$ 66.9</u>

Table of Contents

- (a) For the three months ended September 30, 2019, this adjustment eliminates \$0.8 million in legal and consulting service fees incurred in connection with our strategic evaluation. For the nine months ended September 30, 2019, this adjustment eliminates the impact of a \$2.2 million restructuring-related charge to our fab employees and \$2.6 million in legal and consulting service fees incurred in connection with our strategic evaluation. As these expenses meaningfully impacted our operating results and are not expected to represent an ongoing operating expense to us, we believe our operating performance results are more usefully compared if these expenses are excluded.
- (b) This adjustment eliminates the impact of non-cash equity-based compensation expenses. Although we expect to incur non-cash equity-based compensation expenses in the future, these expenses do not generally require cash settlement, and, therefore, are not used by us to assess the profitability of our operations. We believe that analysts and investors will find it helpful to review our operating performance without the effects of these non-cash expenses as supplemental information.
- (c) This adjustment mainly eliminates the impact of non-cash foreign currency translation associated with intercompany debt obligations and foreign currency denominated receivables and payables, as well as the cash impact of foreign currency transaction gains or losses on collection of such receivables and payment of such payables. Although we expect to incur foreign currency translation gains or losses in the future, we believe that analysts and investors will find it helpful to review our operating performance without the effects of these primarily non-cash gains or losses, which we cannot control. Additionally, we believe the isolation of this adjustment provides investors with enhanced comparability to prior and future periods of our operating performance results.
- (d) This adjustment eliminates the impact of gain or loss recognized in income on derivatives. For the three and nine months ended September 30, 2019, this adjustment represents derivatives value changes excluded from the risk being hedged. For the three and nine months ended September 30, 2018, this adjustment represents hedge ineffectiveness or derivatives value changes excluded from the risk being hedged. We enter into derivative transactions to mitigate foreign exchange risks. As our derivative transactions are limited to a certain portion of our expected cash flows denominated in US dollars, and we do not enter into derivative transactions for trading or speculative purposes, we do not believe that these charges or gains are indicative of our core operating performance.
- (e) This adjustment eliminates expenses in connection with the Audit Committee's independent investigation and related restatement and litigation, primarily comprised of legal, audit and consulting fees, and certain other expenses. For the nine months ended September 30, 2018, this adjustment eliminates the reversal of a \$0.8 million accrual related to certain legal fees incurred in prior periods and reimbursed by insurers.
- (f) For the nine months ended September 30, 2019, this adjustment eliminates \$0.04 million in expenses related to the repurchase of a portion of the 2021 Notes and the Exchangeable Notes in the first quarter of 2019.
- (g) For the nine months ended September 30, 2019, this adjustment eliminates \$0.5 million in legal settlement charge related to a dispute with a prior customer and a legal expense related to the indemnification of a former employee, which is borne by us under a negotiated separation agreement. We do not believe that these charges are indicative of our core operating performance and have been excluded for comparative purposes.

Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under US GAAP. Some of these limitations are:

- Adjusted EBITDA does not reflect our cash expenditures, or future requirements, for capital expenditures or contractual commitments;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect the interest expense, or the cash requirements necessary to service interest or principal payments, on our debt;
- although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often need to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements;
- Adjusted EBITDA does not consider the potentially dilutive impact of issuing equity-based compensation to our management team and employees;
- Adjusted EBITDA does not reflect the costs of holding certain assets and liabilities in foreign currencies; and
- other companies in our industry may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, Adjusted EBITDA should not be considered as a measure of discretionary cash available to us to invest in the growth of our business. We compensate for these limitations by relying primarily on our US GAAP results and using Adjusted EBITDA only supplementally.

Table of Contents

We present Adjusted Net Income as a further supplemental measure of our performance. We prepare Adjusted Net Income by adjusting net income (loss) to eliminate the impact of a number of non-cash expenses and other items that may be either one time or recurring that we do not consider to be indicative of our core ongoing operating performance. We believe that Adjusted Net Income is particularly useful because it reflects the impact of our asset base and capital structure on our operating performance. We present Adjusted Net Income for a number of reasons, including:

- we use Adjusted Net Income in communications with our Board of Directors concerning our consolidated financial performance without the impact of non-cash expenses and the other items as we discussed below since we believe that it is a more consistent measure of our core operating results from period to period; and
- we believe that reporting Adjusted Net Income is useful to readers in evaluating our core operating results because it eliminates the effects of non-cash expenses as well as the other items we discuss below, such as foreign currency gains and losses, which are out of our control and can vary significantly from period to period.

Adjusted Net Income is not a measure defined in accordance with US GAAP and should not be construed as an alternative to income from continuing operations, cash flows from operating activities or net income, as determined in accordance with US GAAP. We encourage you to evaluate each adjustment and the reasons we consider them appropriate. Other companies in our industry may calculate Adjusted Net Income differently than we do, limiting its usefulness as a comparative measure. In addition, in evaluating Adjusted Net Income, you should be aware that in the future we may incur expenses similar to the adjustments in this presentation. We define Adjusted Net Income for the periods indicated as net income (loss), adjusted to exclude (i) restructuring and other charges, (ii) equity-based compensation expense, (iii) foreign currency loss (gain), net, (iv) derivative valuation loss, net, (v) restatement related gain, (vi) loss on early extinguishment of long-term borrowings, net and (vii) others.

The following table summarizes the adjustments to net income (loss) that we make in order to calculate Adjusted Net Income for the periods indicated:

	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
	(In millions)			
Net income (loss)	\$ (1.6)	\$ (45.3)	\$ 17.2	\$ (1.5)
Adjustments:				
Restructuring and other charges(a)	0.8	4.8	—	—
Equity-based compensation expense(b)	0.5	1.9	1.1	3.1
Foreign currency loss (gain), net(c)	21.2	41.6	(6.0)	20.1
Derivative valuation loss, net(d)	0.0	0.2	0.5	2.2
Restatement related gain(e)	—	—	—	(0.8)
Loss on early extinguishment of long-term borrowings, net(f)	—	0.0	—	—
Others(g)	—	0.6	0.5	0.5
Adjusted Net Income	<u>\$ 20.9</u>	<u>\$ 3.9</u>	<u>\$ 13.3</u>	<u>\$ 23.6</u>

- (a) For the three months ended September 30, 2019, this adjustment eliminates \$0.8 million in legal and consulting service fees incurred in connection with our strategic evaluation. For the nine months ended September 30, 2019, this adjustment eliminates the impact of a \$2.2 million restructuring-related charge to our fab employees and \$2.6 million in legal and consulting service fees incurred in connection with our strategic evaluation. As these expenses meaningfully impacted our operating results and are not expected to represent an ongoing operating expense to us, we believe our operating performance results are more usefully compared if these expenses are excluded.
- (b) This adjustment eliminates the impact of non-cash equity-based compensation expenses. Although we expect to incur non-cash equity-based compensation expenses in the future, these expenses do not generally require cash settlement, and, therefore, are not used by us to assess the profitability of our operations. We believe that analysts and investors will find it helpful to review our operating performance without the effects of these non-cash expenses as supplemental information.
- (c) This adjustment mainly eliminates the impact of non-cash foreign currency translation associated with intercompany debt obligations and foreign currency denominated receivables and payables, as well as the cash impact of foreign currency transaction gains or losses on collection of such receivables and payment of such payables. Although we expect to incur foreign currency translation gains or losses in the future, we believe that analysts and investors will find it helpful to review our operating performance without the effects of these primarily non-cash gains or losses, which we cannot control. Additionally, we believe the isolation of this adjustment provides investors with enhanced comparability to prior and future periods of our operating performance results.

[Table of Contents](#)

- (d) This adjustment eliminates the impact of gain or loss recognized in income on derivatives. For the three and nine months ended September 30, 2019, this adjustment represents derivatives value changes excluded from the risk being hedged. For the three and nine months ended September 30, 2018, this adjustment represents hedge ineffectiveness or derivatives value changes excluded from the risk being hedged. We enter into derivative transactions to mitigate foreign exchange risks. As our derivative transactions are limited to a certain portion of our expected cash flows denominated in US dollars, and we do not enter into derivative transactions for trading or speculative purposes, we do not believe that these charges or gains are indicative of our core operating performance.
- (e) This adjustment eliminates expenses in connection with the Audit Committee's independent investigation and related restatement and litigation, primarily comprised of legal, audit and consulting fees, and certain other expenses. For the nine months ended September 30, 2018, this adjustment eliminates the reversal of a \$0.8 million accrual related to certain legal fees incurred in prior periods and reimbursed by insurers.
- (f) For the nine months ended September 30, 2019, this adjustment eliminates \$0.04 million in expenses related to the repurchase of a portion of the 2021 Notes and the Exchangeable Notes in the first quarter of 2019.
- (g) For the nine months ended September 30, 2019, this adjustment eliminates \$0.5 million in legal settlement charge related to a dispute with a prior customer and a legal expense related to the indemnification of a former employee, which is borne by us under a negotiated separation agreement. We do not believe that these charges are indicative of our core operating performance and have been excluded for comparative purposes.

There was no tax impact from the adjustments to net loss to calculate our Adjusted Net Income for the nine months ended September 30, 2019 and 2018 due to net operating loss carry-forwards available to offset taxable income and full allowance for deferred tax assets. We believe that all adjustments to net loss used to calculate Adjusted Net Income were applied consistently to the periods presented.

Adjusted Net Income has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our results as reported under US GAAP. Some of these limitations are:

- Adjusted Net Income does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted Net Income does not consider the potentially dilutive impact of issuing equity-based compensation to our management team and employees;
- Adjusted Net Income does not reflect the costs of holding certain assets and liabilities in foreign currencies; and
- other companies in our industry may calculate Adjusted Net Income differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, Adjusted Net Income should not be considered as a measure of profitability of our business. We compensate for these limitations by relying primarily on our US GAAP results and using Adjusted Net Income only supplementally.

Factors Affecting Our Results of Operations

Net Sales. We derive virtually all of our sales (net of sales returns and allowances) from two segments: Foundry Services Group and Standard Products Group. Our product inventory is primarily located in Korea and is available for drop shipment globally. Outside of Korea, we maintain limited product inventory, and our sales representatives generally relay orders to our factories in Korea for fulfillment. We have strategically located our sales and technical support offices near concentrations of major customers. Our sales offices are located in Korea, the United States, Japan and Greater China. Our network of authorized agents and distributors is in the United States, Europe and the Asia Pacific region. Our net sales from All other consist principally of the disposal of scrap materials.

Prior to the adoption of the new revenue standard effective on January 1, 2018, we had historically recognized revenue when risk and reward of ownership pass to the customer either upon shipment, upon product delivery at the customer's location or upon customer acceptance, depending on the terms of the arrangement. After the adoption of the new revenue standard effective on January 1, 2018, we recognize revenue over time for those foundry products without alternative use where we have an enforceable right to payment for the related foundry services completed to date. For the nine months ended September 30, 2019 and 2018, we sold products to 333 and 345 customers, respectively, and our net sales to our ten largest customers represented 68% and 62% of our net sales, respectively. We have a combined production capacity of approximately 113,000 semiconductor wafers per month. We believe our large-scale, cost-effective fabrication facilities enable us to rapidly adjust our production levels to meet shifts in demand by our end customers.

Gross Profit. Our overall gross profit generally fluctuates as a result of changes in overall sales volumes and in the average selling prices of our products and services. Other factors that influence our gross profit include changes in product mix, the introduction of new products and services and subsequent generations of existing products and services, shifts in the utilization of our manufacturing facilities and the yields achieved by our manufacturing operations, changes in material, labor and other manufacturing costs including outsourced manufacturing expenses, and variation in depreciation expense.

[Table of Contents](#)

Average Selling Prices. Average selling prices for our products tend to be highest at the time of introduction of new products which utilize the latest technology and tend to decrease over time as such products mature in the market and are replaced by next generation products. We strive to offset the impact of declining selling prices for existing products through our product development activities and by introducing new products that command selling prices above the average selling price of our existing products. In addition, we seek to manage our inventories and manufacturing capacity so as to preclude losses from product and productive capacity obsolescence.

Material Costs. Our cost of material consists of costs of raw materials, such as silicon wafers, chemicals, gases and tape and packaging supplies. We use processes that require specialized raw materials, such as silicon wafers, that are generally available from a limited number of suppliers. If demand increases or supplies decrease, the costs of our raw materials could increase significantly.

Labor Costs. A significant portion of our employees are located in Korea. Under Korean labor laws, most employees and certain executive officers with one or more years of service are entitled to severance benefits upon the termination of their employment based on their length of service and rate of pay. As of September 30, 2019, approximately 98% of our employees were eligible for severance benefits.

Depreciation Expense. We periodically evaluate the carrying values of long-lived assets, including property, plant and equipment and intangible assets, as well as the related depreciation periods. We depreciated our property, plant and equipment using the straight-line method over the estimated useful lives of our assets. Depreciation rates vary from 30-40 years on buildings to 5 to 12 years for certain equipment and assets. Our evaluation of carrying values is based on various analyses including cash flow and profitability projections. If our projections indicate that future undiscounted cash flows are not sufficient to recover the carrying values of the related long-lived assets, the carrying value of the assets is impaired and will be reduced, with the reduction charged to expense so that the carrying value is equal to fair value.

Selling Expenses. We sell our products worldwide through a direct sales force as well as a network of sales agents and representatives to OEMs, including major branded customers and contract manufacturers, and indirectly through distributors. Selling expenses consist primarily of the personnel costs for the members of our direct sales force, a network of sales representatives and other costs of distribution. Personnel costs include base salary, benefits and incentive compensation.

General and Administrative Expenses. General and administrative expenses consist of the costs of various corporate operations, including finance, legal, human resources and other administrative functions. These expenses primarily consist of payroll-related expenses, consulting and other professional fees and office facility-related expenses.

Research and Development. The rapid technological change and product obsolescence that characterize our industry require us to make continuous investments in research and development. Product development time frames vary but, in general, we incur research and development costs one to two years before generating sales from the associated new products. These expenses include personnel costs for members of our engineering workforce, cost of photomasks, silicon wafers and other non-recurring engineering charges related to product design. Additionally, we develop base line process technology through experimentation and through the design and use of characterization wafers that help achieve commercially feasible yields for new products. The majority of research and development expenses of our Foundry Services Group are for process development that serves as a common technology platform for all of our product lines. For our Standard Products Group, the majority of research and development expenses are material-related costs for OLED display driver IC product development involving fine processes.

Interest Expense. Our interest expense was incurred primarily under our 2021 Notes and our Exchangeable Notes.

Impact of Foreign Currency Exchange Rates on Reported Results of Operations. Historically, a portion of our revenues and greater than the majority of our operating expenses and costs of sales have been denominated in non-US currencies, principally the Korean won, and we expect that this will remain true in the future. Because we report our results of operations in US dollars converted from our non-US revenues and expenses based on monthly average exchange rates, changes in the exchange rate between the Korean won and the US dollar could materially impact our reported results of operations and distort period to period comparisons. In particular, because of the difference in the amount of our consolidated revenues and expenses that are in US dollars relative to Korean won, depreciation in the US dollar relative to the Korean won could result in a material increase in reported costs relative to revenues, and therefore could cause our profit margins and operating income (loss) to appear to decline materially, particularly relative to prior periods. The converse is true if the US dollar were to appreciate relative to the Korean won. Moreover, our foreign currency gain or loss would be affected by changes in the exchange rate between the Korean won and the US dollar as a substantial portion of non-cash translation gain or loss is associated with the intercompany long-term loans to our Korean subsidiary, which is denominated in US dollars. As of September 30, 2019, the outstanding intercompany loan balance including accrued interest between our Korean subsidiary and our Dutch subsidiary was \$679.6 million. As a result of such foreign currency fluctuations, it could be more difficult to detect underlying trends in our business and results of operations. In addition, to the extent that fluctuations in currency exchange rates cause our results of operations to differ from our expectations or the expectations of our investors, the trading price of our stock could be adversely affected.

[Table of Contents](#)

From time to time, we may engage in exchange rate hedging activities in an effort to mitigate the impact of exchange rate fluctuations. Our Korean subsidiary enters into foreign currency forward and zero cost collar contracts in order to mitigate a portion of the impact of US dollar-Korean won exchange rate fluctuations on our operating results. Obligations under these foreign currency forward and zero cost collar contracts must be cash collateralized if our exposure exceeds certain specified thresholds. These forward and zero cost collar contracts may be terminated by a counterparty in a number of circumstances, including if our long-term debt rating falls below B-/B3 or if our total cash and cash equivalents is less than \$30.0 million at the end of a fiscal quarter unless a waiver is obtained from the counterparty. We cannot assure that any hedging technique we implement will be effective. If our hedging activities are not effective, changes in currency exchange rates may have a more significant impact on our results of operations.

Foreign Currency Gain or Loss. Foreign currency translation gains or losses on transactions by us or our subsidiaries in a currency other than our or our subsidiaries' functional currency are included in our statements of operations as a component of other income (expense). A substantial portion of this net foreign currency gain or loss relates to non-cash translation gain or loss related to the principal balance of intercompany balances at our Korean subsidiary that are denominated in US dollars. This gain or loss results from fluctuations in the exchange rate between the Korean won and US dollar.

Income Taxes. We record our income taxes in each of the tax jurisdictions in which we operate. This process involves using an asset and liability approach whereby deferred tax assets and liabilities are recorded for differences in the financial reporting bases and tax bases of our assets and liabilities. We exercise significant management judgment in determining our provision for income taxes, deferred tax assets and liabilities. We assess whether it is more likely than not that the deferred tax assets existing at the period-end will be realized in future periods. In such assessment, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent results of operations. In the event we were to determine that we would be able to realize the deferred income tax assets in the future in excess of their net recorded amount, we would adjust the valuation allowance, which would reduce the provision for income taxes.

We are subject to income- or non-income-based tax examinations by tax authorities of the US, Korea and multiple other foreign jurisdictions, where applicable, for all open tax years. Significant estimates and judgments are required in determining our worldwide provision for income- or non-income based taxes. Some of these estimates are based on interpretations of existing tax laws or regulations. The ultimate amount of tax liability may be uncertain as a result.

Capital Expenditures. We primarily invest in manufacturing equipment, software design tools and other tangible assets mainly for fabrication facility maintenance, capacity expansion and technology improvement. Capacity expansions and technology improvements typically occur in anticipation of increases in demand. We typically pay for capital expenditures in partial installments with portions due on order, delivery and final acceptance. Our capital expenditures mainly include our payments for the purchase of property, plant and equipment.

Inventories. We monitor our inventory levels in light of product development changes and market expectations. We may be required to take additional charges for quantities in excess of demand, cost in excess of market value and product age. Our analysis may take into consideration historical usage, expected demand, anticipated sales price, new product development schedules, the effect new products might have on the sales of existing products, product age, customer design activity, customer concentration and other factors. These forecasts require us to estimate our ability to predict demand for current and future products and compare those estimates with our current inventory levels and inventory purchase commitments. Our forecasts for our inventory may differ from actual inventory use.

[Table of Contents](#)

Net Sales

Net sales were \$229.7 million for the three months ended September 30, 2019, a \$23.7 million, or 11.5%, increase compared to \$206.0 million for the three months ended September 30, 2018. This increase was primarily attributable to an increase in revenue from both of our Foundry Services Group and Standard Products Group segments as described below.

Foundry Services Group. Net sales from our Foundry Services Group segment were \$90.3 million for the three months ended September 30, 2019, a \$6.5 million, or 7.7%, increase compared to \$83.9 million for the three months ended September 30, 2018. The increase was primarily attributable to an increase in sales of certain communication-related products from global power management IC foundry customers and higher sales of certain gate driver ICs for a foundry customer serving the global computing sector, which was offset in part by a decrease in demand from a customer serving the low- to mid-range mobile phone market.

Standard Products Group. Net sales from our Standard Products Group segment were \$139.2 million for the three months ended September 30, 2019, a \$17.2 million, or 14.1%, increase compared to \$122.0 million for the three months ended September 30, 2018. This increase was primarily attributable to an increase in revenue related to our mobile OLED display driver ICs due to an increase in new OLED smartphones by Chinese and Korean manufacturers and higher demand for premium power products such as high-end MOSFETs primarily for TV and industrial applications. This increase was offset in part by a strategic reduction of our lower margin LCD business.

Gross Profit

Total gross profit was \$60.9 million for the three months ended September 30, 2019 compared to \$55.7 million for the three months ended September 30, 2018, representing a \$5.1 million, or 9.2%, increase. Gross profit as a percentage of net sales for the three months ended September 30, 2019 decreased to 26.5% compared to 27.1% for the three months ended September 30, 2018. The decrease in gross profit as a percentage of net sales was primarily attributable to a decrease in gross profit as a percentage of net sales from our Standard Products Group as further described below.

Foundry Services Group. Gross profit from our Foundry Services Group segment was \$25.5 million for the three months ended September 30, 2019, a \$5.1 million, or 25.0%, increase compared to \$20.4 million for the three months ended September 30, 2018. Gross profit as a percentage of net sales for the three months ended September 30, 2019 increased to 28.3% compared to 24.4% for the three months ended September 30, 2018. The increase in both gross profit and gross profit margin was primarily attributable to a favorable product mix and an increase in the utilization rate.

Standard Products Group. Gross profit from our Standard Products Group segment was \$35.2 million for the three months ended September 30, 2019, which remained flat, compared to \$35.2 million for the three months ended September 30, 2018. Gross profit as a percentage of net sales for the three months ended September 30, 2019 decreased to 25.3% compared to 28.8% for the three months ended September 30, 2018. The decrease in gross profit margin was primarily attributable to an unfavorable product mix and an impact from lower yield of a newly introduced mobile display product during an early stage of production.

[Table of Contents](#)**Net Sales by Geographic Region**

We report net sales by geographic region based on the location to which the products are billed. The following table sets forth our net sales by geographic region and the percentage of total net sales represented by each geographic region for the three months ended September 30, 2019 and the three months ended September 30, 2018:

	Three Months Ended September 30, 2019		Three Months Ended September 30, 2018		Change Amount
	Amount	% of Net Sales	Amount	% of Net Sales	
	(In millions)				
Korea	\$ 71.0	30.9%	\$ 91.6	44.5%	\$ (20.6)
Asia Pacific (other than Korea)	138.1	60.1	93.5	45.4	44.7
United States	7.2	3.1	5.8	2.8	1.4
Europe	12.9	5.6	14.4	7.0	(1.5)
Others	0.5	0.2	0.7	0.3	(0.2)
	<u>\$ 229.7</u>	<u>100.0%</u>	<u>\$ 206.0</u>	<u>100.0%</u>	<u>\$ 23.7</u>

Net sales in Korea for the three months ended September 30, 2019 decreased from \$91.6 million to \$71.0 million compared to the three months ended September 30, 2018, or by \$20.6 million, or 22.5%, primarily due to a decrease in revenue related to mobile OLED display driver ICs and a strategic reduction of lower margin LCD business. This decrease was offset in part by higher sales of certain gate driver ICs for a foundry customer serving the global computing sector and increased sales of our premium power products.

Net sales in Asia Pacific (other than Korea) for the three months ended September 30, 2019 increased from \$93.5 million to \$138.1 million compared to the three months ended September 30, 2018, or by \$44.7 million, or 47.8%, primarily due to an increase in revenue related to mobile OLED display driver ICs in connection with an increase in new OLED smartphones by Chinese and Korean manufacturers, and an increase in sales of a certain communication-related products from a global power management IC foundry customer.

Net sales in the United States for the three months ended September 30, 2019 increased from \$5.8 million to \$7.2 million compared to the three months ended September 30, 2018, or by \$1.4 million, or 23.2%, primarily due to an increase in sales of certain products from a global power management IC foundry customer.

Net sales in Europe for the three months ended September 30, 2019 decreased from \$14.4 million to \$12.9 million compared to the three months ended September 30, 2018, or by \$1.5 million, or 10.6%, primarily due to a decrease in sales of sensor-related ICs for automotive applications, which was offset in part by an increase in sales of certain charger related products in the communications industry.

Operating Expenses

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$16.8 million, or 7.3% of net sales, for the three months ended September 30, 2019, compared to \$18.6 million, or 9.0% of net sales, for the three months ended September 30, 2018. The decrease of \$1.8 million, or 9.4%, was primarily attributable to a decrease in certain employee incentives, equity-based compensation and legal and consulting service fees.

Research and Development Expenses. Research and development expenses were \$17.4 million, or 7.6% of net sales, for the three months ended September 30, 2019, compared to \$18.9 million, or 9.2% of net sales, for the three months ended September 30, 2018. The decrease of \$1.6 million, or 8.2%, was primarily attributable to a decrease in certain employee incentives, and a decrease in outside service fees and various overhead expenses.

Restructuring and Other Charges. Restructuring and other charges were \$0.8 million for the three months ended September 30, 2019, which were resulted from legal and consulting service fees incurred in connection with the strategic evaluation of our Foundry Services Group business and Fab 4.

[Table of Contents](#)

Operating Income

As a result of the foregoing, an operating income of \$25.9 million was recorded for the three months ended September 30, 2019 compared to an operating income of \$18.3 million for the three months ended September 30, 2018. As discussed above, the increase in operating income of \$7.7 million resulted primarily from a \$5.1 million increase in gross profit, a \$1.8 million decrease in selling, general and administrative expenses, and a \$1.6 million decrease in research and development expenses, which was partially offset by a \$0.8 million increase in restructuring and other charges.

Other Income

Interest Expense. Interest expenses were \$5.7 million and \$5.6 million for the three months ended September 30, 2019 and September 30, 2018, respectively.

Foreign Currency Gain (Loss), Net. Net foreign currency loss for the three months ended September 30, 2019 was \$21.2 million compared to net foreign currency gain of \$6.0 million for the three months ended September 30, 2018. The net foreign currency loss for the three months ended September 30, 2019 was due to the depreciation in value of Korean won relative to the US dollar during the period. The net foreign currency gain for the three months ended September 30, 2018 was due to the appreciation in value of Korean won relative to the US dollar during the period.

A substantial portion of our net foreign currency gain or loss is non-cash translation gain or loss associated with the intercompany long-term loans to our Korean subsidiary, which is denominated in US dollars, and is affected by changes in the exchange rate between the Korean won and the US dollar. As of September 30, 2019 and September 30, 2018, the outstanding intercompany loan balances, including accrued interests between our Korean subsidiary and our Dutch subsidiary were \$679.6 million and \$680.4 million, respectively. Foreign currency translation gain or loss from intercompany balances was included in determining our consolidated net income since the intercompany balances were not considered long-term investments in nature, because management intended to settle these intercompany balances at their respective maturity dates.

Others, Net. Others, Net were comprised of rental income, interest income, and gains and losses from the valuation of derivatives which were designated as hedging instruments. Others, Net for the three months ended September 30, 2019 and the three months ended September 30, 2018 were \$0.8 million and \$0.2 million, respectively.

Income Tax Expense

Income tax expense was \$1.5 million and \$1.6 million for the three months ended September 30, 2019 and for the three months ended September 30, 2018, respectively. Income tax expense was recorded for our Korean subsidiary based on the estimated taxable income for the respective periods, combined with its ability to utilize net operating loss carryforwards up to 60% in 2019 and 70% in 2018.

Net Income (Loss)

As a result of the foregoing, a net loss of \$1.6 million was recorded for the three months ended September 30, 2019, compared to a net income of \$17.2 million for the three months ended September 30, 2018. As discussed above, the decrease in net income of \$18.8 million primarily resulted from a \$27.2 million increase in net foreign currency loss, which was offset in part by a \$7.7 million increase in operating income.

[Table of Contents](#)

Net Sales

Net sales were \$592.2 million for the nine months ended September 30, 2019, a \$20.7 million, or 3.6%, increase compared to \$571.5 million for the nine months ended September 30, 2018. This increase was primarily attributable to an increase in revenue from our Standard Products Group, which was offset in part by an increase in revenue from our Foundry Services Group as described below.

Foundry Services Group. Net sales from our Foundry Services Group segment were \$220.5 million for the nine months ended September 30, 2019, a \$21.7 million, or 9.0%, decrease compared to \$242.2 million for the nine months ended September 30, 2018. The decrease was primarily attributable to weaker demand from our foundry customers during the first half of 2019 as a result of softening global market conditions, including macroeconomic uncertainties, and us being more selective about new business as a result of our strategic evaluation of our Foundry Services Group business and Fab 4. This decrease was offset in part by an increase in sales of certain communication-related products from global power management IC foundry customers and higher sales of certain gate driver ICs for a foundry customer serving the global computing sector.

Standard Products Group. Net sales from our Standard Products Group segment were \$371.5 million for the nine months ended September 30, 2019, a \$42.3 million, or 12.9%, increase compared to \$329.1 million for the nine months ended September 30, 2018. This increase was primarily attributable to an increase in revenue related to our mobile OLED display driver ICs due to an increase in new OLED smartphones by Chinese and Korean manufacturers and higher demand for premium power products such as high-end MOSFETs and IGBTs primarily for TV and industrial applications. This increase was offset in part by a strategic reduction of our lower margin LCD business.

Gross Profit

Total gross profit was \$127.4 million for the nine months ended September 30, 2019 compared to \$154.2 million for the nine months ended September 30, 2018, representing a \$26.8 million, or 17.4%, decrease. Gross profit as a percentage of net sales for the nine months ended September 30, 2019 decreased to 21.5% compared to 27.0% for the nine months ended September 30, 2018. The decrease in gross profit and gross profit as a percentage of net sales was due to a decrease in gross profit and gross profit as a percentage of net sales in both of our Foundry Services Group and Standard Products Group segments as described below.

Foundry Services Group. Gross profit from our Foundry Services Group segment was \$41.4 million for the nine months ended September 30, 2019, a \$21.9 million, or 34.7%, decrease compared to \$63.3 million for the nine months ended September 30, 2018. Gross profit as a percentage of net sales for the nine months ended September 30, 2019 decreased to 18.8% compared to 26.1% for the nine months ended September 30, 2018. The decrease in both gross profit and gross profit margin was primarily attributable to an unfavorable product mix and a significant drop in the utilization rate during the first half of 2019, which was affected in part by a softening of global market conditions, including macroeconomic uncertainties, and by being more selective about new business as a result of the strategic evaluation of our Foundry Services Group business and Fab 4.

Standard Products Group. Gross profit from our Standard Products Group segment was \$85.8 million for the nine months ended September 30, 2019, a \$5.0 million, or 5.5%, decrease from \$90.9 million for the nine months ended September 30, 2018. Gross profit as a percentage of net sales for the nine months ended September 30, 2019 decreased to 23.1% compared to 27.6% for the nine months ended September 30, 2018. The decrease in both gross profit and gross profit margin was primarily attributable to inventory reserves related to certain legacy display products, a significant drop in the utilization rate during the first half of 2019 and an impact from lower yield of a newly introduced mobile display product during an early stage of production. This decrease was offset in part by a better product mix from an increase in sales of premium power products such as high-end MOSFETs and IGBTs primarily for TV and industrial applications.

Table of Contents

Net Sales by Geographic Region

We report net sales by geographic region based on the location to which the products are billed. The following table sets forth our net sales by geographic region and the percentage of total net sales represented by each geographic region for the nine months ended September 30, 2019 and the nine months ended September 30, 2018:

	Nine Months Ended September 30, 2019		Nine Months Ended September 30, 2018		Change Amount
	Amount	% of Net Sales	Amount	% of Net Sales	
	(In millions)				
Korea	\$ 190.8	32.2%	\$ 204.3	35.8%	\$ (13.5)
Asia Pacific (other than Korea)	342.4	57.8	302.9	53.0	39.5
United States	20.8	3.5	29.2	5.1	(8.5)
Europe	36.9	6.2	33.0	5.8	3.9
Others	1.2	0.2	2.0	0.3	(0.8)
	<u>\$ 592.2</u>	<u>100.0%</u>	<u>\$ 571.5</u>	<u>100.0%</u>	<u>\$ 20.7</u>

Net sales in Korea for the nine months ended September 30, 2019 decreased from \$204.3 million to \$190.8 million compared to the nine months ended September 30, 2018, or by \$13.5 million, or 6.6%, primarily due to a decrease in revenue related to mobile OLED display driver ICs and a strategic reduction of lower margin LCD business. This decrease was offset in part by higher sales of certain gate driver ICs for a foundry customer serving the global computing sector and increased sales of our premium power products.

Net sales in Asia Pacific (other than Korea) for the nine months ended September 30, 2019 increased from \$302.9 million to \$342.4 million compared to the nine months ended September 30, 2018, or by \$39.5 million, or 13.0%, primarily due to an increase in revenue related to mobile OLED display driver ICs in connection with an increase in new OLED smartphones by Chinese and Korean manufacturers. This increase was offset in part by weaker demand during the first half of 2019 from our foundry customers in part as a result of softening global market conditions, including macroeconomic uncertainties, us being more selective about new business as a result of the strategic evaluation of the Foundry business and Fab 4, and a lower demand for certain of our lower margin power products.

Net sales in the United States for the nine months ended September 30, 2019 decreased from \$29.2 million to \$20.8 million compared to the nine months ended September 30, 2018, or by \$8.5 million, or 28.9%, primarily due to a decrease in sales of certain products from a global power management IC foundry customer.

Net sales in Europe for the nine months ended September 30, 2019 increased from \$33.0 million to \$36.9 million compared to the nine months ended September 30, 2018, or by \$3.9 million, or 11.8%, primarily due to an increase in sales of certain charger-related products in the communications industry, which was offset in part by lower demand from a customer serving the high-end smartphone market.

Operating Expenses

Selling, General and Administrative Expenses. Selling, general and administrative expenses were \$51.9 million, or 8.8% of net sales, for the nine months ended September 30, 2019, compared to \$55.1 million, or 9.6% of net sales, for the nine months ended September 30, 2018. The decrease of \$3.3 million, or 5.9%, was primarily attributable to a decrease in certain employee incentives, equity-based compensation and legal and consulting service fees.

Research and Development Expenses. Research and development expenses were \$56.4 million, or 9.5% of net sales, for the nine months ended September 30, 2019, compared to \$59.5 million, or 10.4% of net sales, for the nine months ended September 30, 2018. The decrease of \$3.1 million, or 5.3%, was primarily attributable to a decrease in certain employee incentives, and a decrease in outside service fees and various overhead expenses, which was offset in part by an increase in development activities for our 28-nanometer OLED display driver ICs.

Restructuring and Other Charges. Restructuring and other charges were \$4.8 million for the nine months ended September 30, 2019, which were resulted from a \$2.2 million restructuring related charge to our fab employees and \$2.6 million in legal and consulting service fees incurred in connection with the strategic evaluation of our Foundry Services Group business and Fab 4.

[Table of Contents](#)

Operating Income

As a result of the foregoing, an operating income of \$14.4 million was recorded for the nine months ended September 30, 2019 compared to an operating income of \$39.6 million for the nine months ended September 30, 2018. As discussed above, the decrease in operating income of \$25.2 million was resulted primarily from a \$26.8 million decrease in gross profit and a \$4.8 million increase in restructuring and other charges, which was partially offset by a \$3.3 million decrease in selling, general and administrative expenses and a \$3.1 million decrease in research and development expenses.

Other Income

Interest Expense. Interest expenses were \$17.0 million and \$16.5 million for the nine months ended September 30, 2019 and September 30, 2018, respectively.

Foreign Currency Loss, Net. Net foreign currency loss for the nine months ended September 30, 2019 was \$41.6 million compared to net foreign currency loss of \$20.1 million for the nine months ended September 30, 2018, which was due to the depreciation in value of the Korean won relative to the US dollar during the period.

A substantial portion of our net foreign currency gain or loss is non-cash translation gain or loss associated with the intercompany long-term loans to our Korean subsidiary, which is denominated in US dollars, and is affected by changes in the exchange rate between the Korean won and the US dollar. As of September 30, 2019 and September 30, 2018, the outstanding intercompany loan balances, including accrued interests between our Korean subsidiary and our Dutch subsidiary were \$679.6 million and \$680.4 million, respectively. Foreign currency translation gain or loss from intercompany balances was included in determining our consolidated net income since the intercompany balances were not considered long-term investments in nature because management intended to settle these intercompany balances at their respective maturity dates.

Loss on Early Extinguishment of Long-Term Borrowings, Net. For the nine months ended September 30, 2019, we repurchased a principal amount of \$0.3 million and \$0.9 million of the 2021 Notes and the Exchangeable Notes, respectively. In connection with these repurchases, we recognized a \$0.04 million of net loss.

Others, Net. Others, Net were comprised of rental income, interest income, and gains and losses from the valuation of derivatives which were designated as hedging instruments. Others, Net for the nine months ended September 30, 2019 and the nine months ended September 30, 2018 were \$2.1 million and negative \$0.3 million, respectively.

Income Tax Expense

Income tax expense was \$3.1 million and \$4.1 million for the nine months ended September 30, 2019 and for the nine months ended September 30, 2018, respectively. Income tax expense was recorded for our Korean subsidiary based on the estimated taxable income for the respective periods, combined with its ability to utilize net operating loss carryforwards up to 60% in 2019 and 70% in 2018.

Net Loss

As a result of the foregoing, a net loss of \$45.3 million was recorded for the nine months ended September 30, 2019, compared to a net loss of \$1.5 million for the nine months ended September 30, 2018. As discussed above, the increase in net loss of \$43.7 million primarily resulted from a \$25.2 million decrease in operating income and a \$21.5 million increase in net foreign currency loss.

Liquidity and Capital Resources

Our principal capital requirements are to fund sales and marketing, invest in research and development and capital equipment, to make debt service payments and to fund working capital needs. We calculate working capital as current assets less current liabilities.

Our principal sources of liquidity are our cash, cash equivalents, our cash flows from operations and our financing activities. Our ability to manage cash and cash equivalents may be limited, as our primary cash flows are dictated by the terms of our sales and supply agreements, contractual obligations, debt instruments and legal and regulatory requirements. From time to time, we may sell accounts receivable to third parties under factoring agreements or engage in accounts receivable discounting to facilitate the collection of cash. For a description of our factoring arrangements and accounts receivable discounting, please see “Item 1. Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements—Note 2. Accounts Receivable” included elsewhere in this Report. In addition, from time to time, we may make payments to our vendors on extended terms with their consent. As of September 30, 2019, we did not have any accounts payable on extended terms or payment deferral with our vendors.

We currently believe that we will have sufficient cash reserves from cash on hand and expected cash from operations to fund our operations as well as capital expenditures for the next twelve months and the foreseeable future.

We may, from time to time, repurchase a portion of our outstanding 2021 Notes and our Exchangeable Notes through open market purchases or privately negotiated transactions subject to prevailing market conditions and our available cash reserves.

Cash Flows from Operating Activities

Cash inflow provided by operating activities totaled \$30.0 million for the nine months ended September 30, 2019, compared to \$25.0 million for the nine months ended September 30, 2018. The net operating cash inflow for the nine months ended September 30, 2019 reflects our net loss of \$45.3 million, as adjusted favorably by \$89.9 million, which mainly consisted of depreciation and amortization, provision for severance benefits and net foreign currency loss, and net unfavorable impact of \$14.6 million from changes of operating assets and liabilities.

Our working capital balance as of September 30, 2019 was \$222.1 million compared to \$220.1 million as of December 31, 2018. The change was primarily attributable to the timing of cash received and payments made related to account receivables and account payables, respectively.

Cash Flows from Investing Activities

Cash outflow used in investing activities totaled \$22.6 million for the nine months ended September 30, 2019, compared to \$21.3 million of cash outflow used in investing activities for the nine months ended September 30, 2018. The \$1.3 million increase was primarily attributable to a \$4.7 million net increase in hedge collateral, a \$1.5 million net increase in guarantee deposit, and \$1.5 million decrease in proceed from disposal of plant, property and equipment, which was partially offset by a \$6.5 million decrease in the purchase of plant, property and equipment. The purchase of plant, property and equipment for the nine months ended September 30, 2018 includes a \$4.3 million payment for the purchase of certain facilities related to a water treatment facility arrangement.

Cash Flows from Financing Activities

Cash outflow used in financing activities totaled \$3.3 million for the nine months ended September 30, 2019, compared to \$5.1 million of cash inflow provided by financing activities for the nine months ended September 30, 2018. The financing cash outflow for the nine months ended September 30, 2019 was primarily attributable to a payment of \$1.2 million for the repurchases of 2021 Notes and Exchangeable Notes in the first quarter of 2019 and a payment of \$2.4 million for the repurchases of our common stock in January 2019 pursuant to our stock repurchase plan. The financing cash inflow for the nine months ended September 30, 2018 was primarily attributable to proceeds of \$4.3 million in connection with the water treatment facility arrangement.

Capital Expenditures

We routinely make capital expenditures for fabrication facility maintenance, enhancement of our existing facilities and reinforcement of our global research and development capability. For the nine months ended September 30, 2019, capital expenditures for plant, property and equipment were \$16.7 million, a \$6.5 million, or 27.9%, decrease from \$23.2 million, including a \$4.3 million payment for the purchase of certain facilities related to a water treatment facility arrangement, for the nine months ended September 30, 2018. The capital expenditures for the nine months ended September 30, 2019 were related to meeting our customer demand, and supporting technology and facility improvement at our fabrication facilities.

[Table of Contents](#)

Contractual Obligations

The following summarizes our contractual obligations as of September 30, 2019:

	Payments Due by Period						
	Total	Remainder of 2019					
		2020	2021	2022	2023	Thereafter	
	(In millions)						
Exchangeable Notes(1)	\$ 90.0	\$ —	\$ 4.2	\$ 85.8	\$—	\$—	\$ —
Senior notes(2)	254.0	—	14.9	239.1	—	—	—
Operating leases(3)	18.1	0.8	2.7	1.3	1.1	1.0	11.3
Finance leases(3)	3.2	0.1	0.4	0.4	0.4	0.4	1.6
Water Treatment Services(3)(4)	47.7	2.0	8.1	8.0	8.0	5.5	16.1
Others(5)	21.1	2.3	13.4	4.9	0.3	0.1	0.2

- (1) Interest payments as well as \$83.7 million aggregate principal amount of the Exchangeable Notes outstanding as of September 30, 2019, which bear interest at a rate of 5.0% per annum and are scheduled to mature in 2021 if not earlier exchanged at the price of approximately \$8.26 per share of common stock.
- (2) Interest payments as well as \$224.3 million aggregate principal amount of the 2021 Notes outstanding as of September 30, 2019, which bear interest at a rate of 6.625% per annum and are scheduled to mature in 2021 if not earlier redeemed.
- (3) Assumes constant currency exchange rate for Korean won to US dollars of 1,201.3:1, the exchange rate as of September 30, 2019.
- (4) Includes future payments for water treatment services for our fabrication facilities in Korea based on the contractual terms.
- (5) Includes license agreements, funding obligations for the accrued severance benefits and other contractual obligations.

The indentures relating to the Exchangeable Notes and the 2021 Notes contain covenants as detailed in “Item 1. Financial Statements and Supplementary Data—Notes to Consolidated Financial Statements—Note 10. Long-Term Borrowings” in this Report. Those covenants are subject to a number of exceptions and qualifications. Certain of those restrictive covenants will terminate if the Exchangeable Notes or the 2021 Notes are rated investment grade at any time.

We lease land, office space and equipment under various operating lease agreements that expire through 2034.

We are a party to arrangements for the water treatment facilities in Cheongju and Gumi, Korea, which include 5-year and 10-year service agreements, respectively.

Beginning in July 2018, we have contributed a certain percentage of severance benefits, accrued for eligible employees for their services beginning January 1, 2018, to certain severance insurance deposit accounts. These accounts consist of time deposits and other guaranteed principal and interest, and are maintained at insurance companies, banks or security companies for the benefit of employees. We deduct the contributions made to these severance insurance deposit accounts from our accrued severance benefits. As of September 30, 2019, our accrued severance benefits totaled \$138.8 million and cumulative contributions to these severance insurance deposit accounts amounted to \$3.8 million. Our related cash payments for future contributions are \$0.8 million and \$3.3 million for the remaining period of 2019 and 2020, respectively, to the extent that our obligations are contractual, fixed and reasonably estimable.

We follow US GAAP guidance on uncertain tax positions. Our unrecognized tax benefit totaled \$0.4 million as of September 30, 2019. This unrecognized tax benefit has been excluded from the above table because we cannot estimate the period of cash settlement with the respective taxing authority.

[Table of Contents](#)

Critical Accounting Policies and Estimates

Preparing financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the financial statements, the reported amounts of revenues and expenses during the reporting periods and the related disclosures in our consolidated financial statements and accompanying notes.

We believe that our significant accounting policies, which are described further in Note 1 to our consolidated financial statements in our Annual Report on Form 10-K for our fiscal year ended December 31, 2018, or our 2018 Form 10-K, are critical due to the fact that they involve a high degree of judgment and estimates about the effects of matters that are inherently uncertain. We base these estimates and judgments on historical experience, knowledge of current conditions and other assumptions and information that we believe to be reasonable. Estimates and assumptions about future events and their effects cannot be determined with certainty. Accordingly, these estimates may change as new events occur, as more experience is acquired, as additional information is obtained and as the business environment in which we operate changes.

A description of our critical accounting policies that involve significant management judgement appears in our 2018 Form 10-K, under “Management’s Discussion and Analysis of Financial Conditions and Reports of Operations—Critical Accounting Policies and Estimates.” Our critical accounting policies for leases as updated for the adoption of the new lease standard are disclosed in the following section. There have been no other material changes to our critical accounting policies and estimates as compared to our critical accounting policies and estimates included in our 2018 Form 10-K.

Leases

We determine if an arrangement is a lease at inception of a contract considering whether the arrangement conveys the right to control the use of an identified asset over the period of use. Control of an underlying asset is conveyed if we have the right to direct the use of, and to obtain substantially all of the economic benefits from the use of, the identified asset. We account for lease transactions as either an operating or a finance lease, depending on the terms of the underlying lease arrangement. Assets related to operating leases are recorded on the balance sheet as operating lease right-of-use assets; the related liabilities are recorded as operating lease liabilities for the current portion and non-current operating lease liabilities for the non-current portion. Finance lease right-of-use assets are included in property and equipment, net and the related lease liabilities are included in other current liabilities and other non-current liabilities on the consolidated balance sheets.

Right-of-use assets represent our right to use an underlying asset during the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Right-of-use assets and liabilities are recognized based on the present value of the future minimum lease payments over the lease term. As most of our leases do not provide a readily determinable implicit rate, we estimate its incremental borrowing rates in determining the present value of future payments based on the lease term of each lease and market information available at commencement date. Fixed lease expenses for operating leases and depreciation expenses for finance leases are recognized on a straight-line basis over the respective lease term.

An extension or contraction of a lease term is considered if the related option to extend or early terminate the lease is reasonably certain to be exercised by us. Operating lease right-of-use assets may also include any advance lease payments made and exclude lease incentives and initial direct costs incurred. We have lease agreements with lease and non-lease components, which are generally accounted for separately. For certain equipment leases, lease and non-lease components are accounted for as a single lease component.

Variable lease payment amounts that cannot be determined at the commencement of the lease such as increases in lease payments based on changes in index rates are not included in the right-of-use assets or liabilities. These variable lease payments are expensed as incurred.

We do not recognize operating lease right-of-use assets and operating lease liabilities that arise from short-term leases but rather recognizes fixed lease payments in the statements of operations on a straight-line basis and variable payments in the period in which the related obligations incur.

Recent Accounting Pronouncements

For a full description of new accounting pronouncements and recently adopted accounting pronouncements, please see “Item 1. Interim Consolidated Financial Statements—Notes to Consolidated Financial Statements—Note 1. Business, Basis of Presentation and Significant Accounting Policies” in this Report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to the market risk that the value of a financial instrument will fluctuate due to changes in market conditions, primarily from changes in foreign currency exchange rates and interest rates. In the normal course of our business, we are subject to market risks associated with interest rate movements and currency movements on our assets and liabilities.

Foreign Currency Exposures

We have exposure to foreign currency exchange rate fluctuations on net income from our subsidiaries denominated in currencies other than US dollars, as our foreign subsidiaries in Korea, Taiwan, China, Japan and Hong Kong use local currency as their functional currency. From time to time these subsidiaries have cash and financial instruments in local currency. The amounts held in Japan, Taiwan, Hong Kong and China are not material in regards to foreign currency movements. However, based on the cash and financial instruments balance at September 30, 2019, for our Korean subsidiary, a 10% devaluation of the Korean won against the US dollar would have resulted in a decrease of \$0.2 million in our US dollar financial instruments and cash balances.

See “Note 8. Derivative Financial Instruments” to our consolidated financial statements under “Item 1. Interim Consolidated Financial Statements” and “Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Factors Affecting Our Results of Operations—Impact of Foreign Currency Exchange Rates on Reported Results of Operations” for additional information regarding our foreign exchange hedging activities.

Interest Rate Exposures

As of September 30, 2019, \$83.74 million aggregate principal amount of our Exchangeable Notes were outstanding. Interest on the Exchangeable Notes accrues at a fixed rate of 5.0% per annum and is paid semi-annually every March 1 and September 1 of each year until the Exchangeable Notes mature on March 1, 2021. As of September 30, 2019, \$224.25 million aggregate principal amount of our 2021 Notes were also outstanding. Interest on the 2021 Notes accrues at a fixed rate of 6.625% per annum and is paid semi-annually every January 15 and July 15 of each year until the 2021 Notes mature on July 15, 2021. Since the interest rates are fixed, we have no market risk related to the Exchangeable Notes and the 2021 Notes.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic reports filed or submitted 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.

In connection with the preparation of this Report, we carried out an evaluation under the supervision of and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, as of September 30, 2019, of the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2019.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

For a discussion of legal proceedings, see “Part I: Item 3. Legal Proceedings” of our 2018 Form 10-K.

See also “Part I: Item 1A. Risk Factors” and Note 18 to our consolidated financial statements in our 2018 Form 10-K for additional information.

Item 1A. Risk Factors

The Company is subject to risks and uncertainties, any of which could have a significant or material adverse effect on our business, financial condition, liquidity or consolidated financial statements. You should carefully consider the risk factors disclosed in Part I, Item 1A of our 2018 Form 10-K and other reports we have filed with the SEC. The risks described herein and therein are not the only ones we face. This information should be considered carefully together with the other information contained in this Report and the other reports and materials the Company files with the SEC.

We are subject to risks and uncertainties related to the strategic review of our Foundry Services Group business and related fabrication facility.

In February 2019, we announced that we had initiated, with the assistance of external financial and legal advisors, a strategic review of our Foundry Services Group business and the fabrication facility located in Cheongju (“Fab 4”), the larger of our two 8-inch manufacturing facilities. There can be no assurance that the strategic review will result in a sale of the Foundry Services Group business, Fab 4, or any other transaction that we may consider in connection with such review, including accretive business conversions, joint ventures and partnerships. Since announcing the strategic review process, we have incurred, and expect to continue to incur, significant expenses in connection with the strategic review process, and our future results may be affected by the pursuit or consummation of any specific transaction or other strategic alternative resulting from the strategic review. While this strategic review is ongoing, we are exposed to certain risks and uncertainties, including potential risks and uncertainties in retaining and attracting employees during the review process; the diversion of management’s time to the review; potential loss of Foundry Services Group customers or future sales; and exposure to potential litigation in connection with the review process or any specific transaction or other strategic alternative resulting therefrom, all of which could disrupt and negatively affect our business. In addition, speculation regarding any developments related to this strategic review and perceived uncertainties related to the future of our Foundry Services Group business and Fab 4 could cause our stock price to fluctuate significantly. There is no finite timetable for completion of the strategic review, and we can provide no assurance that any transaction or other strategic alternative we may pursue will have a positive impact on our results of operations or financial condition.

[Table of Contents](#)

Item 6. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
31.1#	Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934 of the Chief Executive Officer.
31.2#	Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934 of the Chief Financial Officer.
32.1†	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, of the Chief Executive Officer.
32.2†	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, of the Chief Financial Officer.
101.INS#	XBRL Instance Document.
101.SCH#	XBRL Taxonomy Extension Schema Document.
101.CAL#	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF#	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB#	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE#	XBRL Taxonomy Extension Presentation Linkbase Document.

Footnotes:

- # Filed herewith
† Furnished herewith

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.

MAGNACHIP SEMICONDUCTOR CORPORATION
(Registrant)

Dated: November 7, 2019

By: /s/ Young-Joon Kim

Young-Joon Kim
Chief Executive Officer
(Principal Executive Officer)

Dated: November 7, 2019

By: /s/ Jonathan W. Kim

Jonathan W. Kim
Chief Financial Officer, Executive Vice President and
Chief Accounting Officer
(Principal Financial and Accounting Officer)

**CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO
SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Young-Joon Kim, certify that:

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

Dated: November 7, 2019

/s/ Young-Joon Kim

Young-Joon Kim
Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO
SECTION 302 OF THE
SARBANES-OXLEY ACT OF 2002**

I, Jonathan W. Kim, certify that:

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

Dated: November 7, 2019

/s/ Jonathan W. Kim

Jonathan W. Kim

Chief Financial Officer

(Principal Financial and Accounting Officer)

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

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of MagnaChip Semiconductor Corporation (the “**Company**”) hereby certifies, to such officer’s knowledge, that:

(i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “**Report**”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Dated: November 7, 2019

/s/ Young-Joon Kim

Young-Joon Kim
Chief Executive Officer
(Principal Executive Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C § 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or incorporated by reference in any registration statement of the Company filed under the Securities Act of 1933, as amended.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

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

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of MagnaChip Semiconductor Corporation (the “**Company**”) hereby certifies, to such officer’s knowledge, that:

(i) the Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the “**Report**”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Dated: November 7, 2019

/s/ Jonathan W. Kim

Jonathan W. Kim

Chief Financial Officer

(Principal Financial and Accounting Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C § 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or incorporated by reference in any registration statement of the Company filed under the Securities Act of 1933, as amended.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.