

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of report (Date of earliest event reported): October 23, 2019

MagnaChip Semiconductor Corporation
(Exact name of Registrant as specified in its charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-34791
(Commission
File Number)

83-0406195
(IRS Employer
Identification No.)

c/o MagnaChip Semiconductor S.A.
1, Allée Scheffer, L-2520
Luxembourg, Grand Duchy of Luxembourg
(Address of Principal Executive Offices)

Not Applicable
(Zip Code)

Registrant's telephone number, including area code: (352) 45-62-62

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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 is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

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

Item 2.02. Results of Operations and Financial Condition.

Attached hereto as Exhibit 99.1 and incorporated by reference herein is financial information for MagnaChip Semiconductor Corporation and its consolidated subsidiaries for the third quarter ended September 30, 2019, as presented in a press release dated October 23, 2019.

The information disclosed under this Item 2.02, including Exhibit 99.1 hereto, shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and shall not be deemed incorporated by reference into any filing made under the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

The following exhibit is furnished as part of this report:

<u>Exhibit No.</u>	<u>Description</u>
99.1	<u>Press release for MagnaChip Semiconductor Corporation dated October 23, 2019, announcing the results for the third quarter ended September 30, 2019.</u>

SIGNATURE

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 hereunto duly authorized.

Dated: October 23, 2019

MAGNACHIP SEMICONDUCTOR CORPORATION

By: /s/ Theodore Kim

Theodore Kim

Chief Compliance Officer, Executive Vice President, General
Counsel and Secretary



PRESS RELEASE

**MagnaChip Reports Revenue of \$229.7 Million in Third Quarter 2019;
OLED, Power Revenue Set Records; Foundry Revenue Hits 5-year High
— Q3 Revenue at High-End of Guidance Range; Gross Profit Margin of 26.5% Exceeds Guidance Range —**

SEOUL, South Korea and SAN JOSE, Calif., October 23, 2019 — MagnaChip Semiconductor Corporation (NYSE: MX) today announced financial results for the third quarter of 2019.

Q3 2019 Summary

- Revenue of \$229.7 million at high-end of guidance range of \$220-230 million; Q3 revenue up 11.5% Year-over-Year (YoY); up 12% Quarter-over-Quarter (QoQ)
- Standard Products Group (SPG) revenue of \$139.2 million, up 14.1% YoY; up 5.5% QoQ
 - Display standard products revenue of \$90.6 million, up 16.7% YoY; up 7.5% QoQ
 - OLED display driver IC revenue of \$78.3 million up 34.2% YoY; up 7.2% QoQ
 - Power standard products revenue of \$48.7 million, up 9.5% YoY; up 2.0% QoQ
- Foundry Services Group (FSG) revenue of \$90.3 million, up 7.7% YoY; up 23.6% QoQ
- Total gross profit margin (GPM) of 26.5% exceeded the guidance range of 22-24%; GPM was 27.1% in Q3 2018; 21.4% in Q2 2019

Fourth Quarter 2019 Business Outlook

MagnaChip anticipates:

- Normal seasonal softness in revenue but improvement from the fourth quarter of 2018. Revenue is expected to be in the range of \$181 million to \$191 million, down 19% at the mid-point of the projected range when compared with revenue of \$229.7 million in the third quarter of 2019, and up 3.7% year-over-year when compared to revenue of \$179.4 million in the fourth quarter of 2018.
- Gross profit margin to be in the range of 24% to 26%, when compared to 26.5% in the third quarter of 2019 and 24.5% in the fourth quarter of 2018. Gross margin guidance for the fourth quarter reflects the current expectation that fab utilization will show an expected sequential decline from the third quarter of 2019.

CEO YJ Kim comments on Q3

Revenue of \$229.7 million was the highest quarterly level achieved since we went public in 2011. Our Display and Power businesses both had record quarterly revenue, and Foundry revenue was at the highest level in five years. Demand continued to be robust for our OLED display drivers, as revenue increased over 34% year-over-year and over 7% sequentially.

We were awarded a record 11 new design wins for OLED display drivers in Asia, including three for mid-range smartphones from a major smartphone maker in Korea. Of the 11 design wins, seven were for display drivers in our 40-nanometer product family and four were for our new and lowest-power 28-nanometer display drivers. Smartphone makers in Asia launched a total of six high-end and mid-range models using our OLED display drivers. Our Power business showed sequential growth and the Foundry business showed sharp sequential growth, as customer demand was strong, particularly from the smartphone and computing segments.

Strategic Evaluation Process

“I’m pleased to report that we continue to make substantial progress on our previously announced strategic evaluation process of the Foundry business and Fab 4, including discussions with multiple interested parties toward a possible sale of the business as well as consideration of accretive business conversions, joint ventures and partnerships,” said YJ Kim, CEO. “As stated previously, our decisions regarding the outcome of the various options of the strategic evaluation process will be guided by what the management and Board consider to be the best available path to improve MagnaChip’s profitability and to maximize shareholder value.”

CFO Jonathan Kim comments on Q3

Total revenue came in at the high-end of our guidance range, as Display, Power and Foundry all showed year-over-year and sequential revenue growth. Gross profit margin of 26.5% in Q3 exceeded our guidance range due primarily to higher-than-expected fab utilization, mainly as a result of a significant increase in Foundry revenue.

Cash and cash equivalents totaled \$131.3 million, up sequentially from \$123.8 million, and net operating cash flow was \$12.9 million, marking the second consecutive quarter of net positive operating cash flow.

Third Quarter Financial Review

Total Revenue

Total revenue in the third quarter was \$229.7 million, up 11.5% as compared to reported revenue of \$206 million from the third quarter of 2018, and up 12.0% from \$205.1 million in the second quarter of 2019.

Segment Revenue

Foundry Services Group revenue in the third quarter was \$90.3 million, up 7.7% from the third quarter of 2018, and up 23.6% sequentially. Standard Products Group revenue in the third quarter was \$139.2 million, up 14.1% from the third quarter of 2018, and up 5.5% sequentially.

Total Gross Profit and Gross Profit Margin

Total gross profit in the third quarter of 2019 was \$60.9 million or 26.5% as a percentage of revenue, as compared with gross profit of \$55.7 million or 27.1% as a percentage of revenue in the third quarter of 2018, and \$43.8 million or 21.4% as a percentage of revenue in the second quarter of 2019.

Segment Gross Profit Margin

Foundry Services Group gross profit margin was 28.3% as compared with 24.4% in the third quarter of 2018 and 16.7% in the second quarter of 2019. The YoY and sequential improvement in the Foundry Services Group’s gross profit margin was primarily due to an increase in Foundry revenue, an improved product mix and also higher fab utilization. The Standard Products Group gross profit margin was 25.3% as compared with 28.8% in the third quarter of 2018 and 23.9% in the second quarter of 2019. The sequential improvement in the Standard Products Group’s gross profit margin was due primarily to an increase in fab utilization. The sequential improvement as well as a YoY decline in the Standard Product Group’s gross profit margin was due to an increase in fab utilization that benefited Power and non-OLED products manufactured in-house, but the gain was offset by temporarily lower wafer yields from external suppliers on OLED products that recently entered production.

Operating Income, Net Income, Adjusted Net Income, Adjusted EBITDA

Operating income was of \$25.9 million for the third quarter of 2019, as compared to operating income of \$18.3 million in the third quarter of 2018 and operating income of \$6.7 million for the second quarter of 2019.

Net loss, on a GAAP basis, was \$1.6 million or \$0.05 cents per basic and diluted share in the third quarter of 2019 as compared with a net income of \$17.2 million or \$0.50 per basic share and \$0.41 per diluted share in the third quarter of 2018 and net loss of \$9.5 million or \$0.28 per basic and diluted share in the second quarter of 2019.

Adjusted Net Income, a non-GAAP financial measure, totaled \$20.9 million or \$0.61 per basic share and \$0.49 per diluted share in the third quarter of 2019, as compared to Adjusted Net Income of \$13.3 million or \$0.38 per basic share and \$0.32 per diluted share in the third quarter of 2018 and Adjusted Net Income of \$2.9 million or \$0.08 per basic and diluted share in the second quarter of 2019.

Adjusted EBITDA, a non-GAAP financial measure, was \$35.5 million or 15.4% of revenue in the third quarter of 2019 as compared to Adjusted EBITDA of \$27.9 million or 13.5% of revenue in the third quarter of 2018 and Adjusted EBITDA of \$17.0 million or 8.3% of revenue in the second quarter of 2019.

Management believes that non-GAAP financial measures, when viewed in conjunction with GAAP results, can provide a meaningful understanding of the factors and trends affecting MagnaChip's business and operations and assist in evaluating our core operating performance. However, such non-GAAP financial measures have limitations and should not be considered as a substitute for net income or as a better indicator of our operating performance than measures that are presented in accordance with GAAP. A reconciliation of GAAP results to non-GAAP results is included in this press release.

Cash and cash equivalents totaled \$131.3 million in the third quarter, up from \$123.8 million in the second quarter of 2019.

	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	\$ 229,677	\$ 206,000	\$ 592,202	\$ 571,504

	Three Months Ended September 30, 2019		Three Months Ended September 30, 2018	
	Amount	% of Net Sales	Amount	% of Net Sales
Gross Profit				
Foundry Services Group	\$25,547	28.3%	\$20,443	24.4%
Standard Products Group	35,222	25.3	35,204	28.8
All other	97	100.0	102	100.0
Total gross profit	\$60,866	26.5%	\$55,749	27.1%

	Nine Months Ended September 30, 2019		Nine Months Ended September 30, 2018	
	Amount	% of Net Sales	Amount	% of Net Sales
Gross Profit				
Foundry Services Group	\$ 41,361	18.8%	\$ 63,292	26.1%
Standard Products Group	85,842	23.1	90,874	27.6
All other	204	99.5	18	10.8
Total gross profit	\$ 127,407	21.5%	\$ 154,184	27.0%

Third Quarter 2019 and Recent Company Highlights

MagnaChip announced:

- Its cumulative shipments of OLED DDICs (Display Driver ICs) surpassing the 500 million milestone. OLED display drivers are low-power devices that offer excellent screen resolution with deep and bright colors for mobile screens that do not require a backlight. They also enable full-screen, rounded edges and thinner and lighter smartphones. MagnaChip first introduced the OLED DDIC in 2003 and began mass production in 2007.
<http://investors.magnachip.com/news-releases/news-release-details/magnachip-surpasses-500-million-milestone-cumulative-shipments>
- Offering of 0.35 micron 700V Ultra-High Voltage process technologies (UHV) suitable for different system requirements for AC-DC converter ICs and LED driver ICs. Currently the market demand is increasing dramatically for AC-powered products, including LED lighting drivers, AC-DC converter ICs and AC-DC chargers commonly found in home appliances. Due to increased competition, the cost competitiveness of these products, manufactured using UHV technologies, is becoming a critical consideration for IC providers.
<http://investors.magnachip.com/news-releases/news-release-details/magnachip-offers-035-micron-700v-ultra-high-voltage-process-1>
- The release of a 100V Mid-Voltage MOSFET (Metal Oxide Semiconductor Field-Effect Transistor) with a new thermal package (“M2PAK-7P”) designed for the fast-growing e-Bike market. This MOSFET with the M2PAK-7P package is suitable to meet the particular requirements of electric bike (e-Bike) systems. E-Bikes, an emerging trend along with electric scooters, have become an integral part of new eco-friendly wave of transportation and represents a “green personal mobility” movement in large urban markets.
<http://investors.magnachip.com/news-releases/news-release-details/magnachip-targets-fast-growing-e-bike-market-high-performance>

Third Quarter 2019 Earnings Conference Call

The earnings conference call will be webcast live today (October 23, 2019) at 5:00 p.m. ET, and also is available by dialing toll-free at **1-844-536-5472**. International call-in participants can dial **1-614-999-9318**. The conference ID number is **4069039**. Participants are encouraged to initiate their calls at least 10 minutes in advance of the 5 p.m. ET start time to ensure a timely connection. The webcast and earnings release will be accessible at www.magnachip.com. A replay of the conference call will be available the same day and will run for 72 hours. The replay dial-in numbers are **1-404-537-3406** or toll-free at **1-855-859-2056**. The access code is **4069039**.

About MagnaChip Semiconductor Corporation

MagnaChip is a designer and manufacturer of analog and mixed-signal semiconductor platform solutions for communications, IoT, consumer, industrial and automotive applications. The Company’s Standard Products Group and Foundry Services Group provide a broad range of standard products and manufacturing services to customers worldwide. MagnaChip, with about 40 years of operating history, owns a portfolio of approximately 3,000 registered patents and pending applications, and has extensive engineering, design and manufacturing process expertise. For more information, please visit www.magnachip.com. Information on or accessible through, MagnaChip’s website is not a part of, and is not incorporated into, this release.

Safe Harbor for Forward-Looking Statements

Information in this release regarding MagnaChip's forecasts, business outlook, expectations and beliefs are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. These statements include statements about our future operating and financial performance, including but not limited to fourth quarter 2019 revenue and gross profit margin expectations. All forward-looking statements included in this release are based upon information available to MagnaChip as of the date of this release, which may change, and we assume no obligation to update any such forward-looking statements. These statements are not guarantees of future performance and actual results could differ materially from our current expectations. Factors that could cause or contribute to such differences include general economic conditions, the impact of competitive products and pricing, timely design acceptance by our customers, timely introduction of new products and technologies, ability to ramp new products into volume production, industry wide shifts in supply and demand for semiconductor products, industry and/or company overcapacity, effective and cost efficient utilization of manufacturing capacity, financial stability in foreign markets and the impact of foreign exchange rates, unanticipated costs and expenses or the inability to identify expenses which can be eliminated, compliance with U.S. and international trade and export laws and regulations by us and our distributors, the risk that the strategic evaluation and the initiatives related thereto described above are not successful, and other risks detailed from time to time in MagnaChip's filings with the SEC, including our Form 10-K filed on February 22, 2019 and subsequent registration statements, amendments or other reports that we may file from time to time with the SEC and/or make available on our website. MagnaChip assumes no obligation and does not intend to update the forward-looking statements provided, whether as a result of new information, future events or otherwise.

CONTACTS:

In the United States:

Bruce Entin

Investor Relations

Tel. +1-408-625-1262

investor.relations@magnachip.com

In Korea:

Chankeun Park

Director, Public Relations

Tel. +82-2-6903-5223

chankeun.park@magnachip.com

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands of US dollars, except share data)
(Unaudited)

	Three Months Ended		
	September 30, 2019	June 30, 2019	September 30, 2018
Net sales	\$ 229,677	205,145	206,000
Cost of sales	168,811	161,305	150,251
Gross profit	60,866	43,840	55,749
Gross profit %	26.5%	21.4%	27.1%
Operating expenses			
Selling, general and administrative expenses	16,812	16,975	18,566
Research and development expenses	17,368	18,989	18,918
Restructuring and other charges	763	1,130	—
Total operating expenses	34,943	37,094	37,484
Operating income	25,923	6,746	18,265
Interest expense	(5,656)	(5,679)	(5,587)
Foreign currency gain (loss), net	(21,205)	(10,431)	6,002
Other income, net	785	656	150
Income (loss) before income tax expense	(153)	(8,708)	18,830
Income tax expense	1,454	812	1,608
Net income (loss)	\$ (1,607)	\$ (9,520)	\$ 17,222
Earnings (loss) per common share—			
Basic	\$ (0.05)	\$ (0.28)	\$ 0.50
Diluted	\$ (0.05)	\$ (0.28)	\$ 0.41
Weighted average number of shares—Basic	34,357,745	34,245,127	34,573,377
Weighted average number of shares—Diluted	34,357,745	34,245,127	46,021,610

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
RECONCILIATION OF NET INCOME TO ADJUSTED EBITDA AND ADJUSTED NET INCOME
(In thousands of US dollars, except share data)
(Unaudited)

	Three Months Ended		
	September 30, 2019	June 30, 2019	September 30, 2018
Net income (loss)	\$ (1,607)	\$ (9,520)	\$ 17,222
Adjustments:			
Interest expense, net	4,982	5,092	5,055
Income tax expense	1,454	812	1,608
Depreciation and amortization	8,156	8,202	7,913
EBITDA	12,985	4,586	31,798
Restructuring and other charges	763	1,130	—
Equity-based compensation expense	479	772	1,083
Foreign currency loss (gain), net	21,205	10,431	(6,001)
Derivative valuation loss, net	33	80	518
Other	—	—	473
Adjusted EBITDA	\$ 35,465	\$ 16,999	\$ 27,871
Net income (loss)	\$ (1,607)	\$ (9,520)	\$ 17,222
Adjustments:			
Restructuring and other charges	763	1,130	—
Equity-based compensation expense	479	772	1,083
Foreign currency loss (gain), net	21,205	10,431	(6,001)
Derivative valuation loss, net	33	80	518
Other	—	—	473
Adjusted Net Income	\$ 20,873	\$ 2,893	\$ 13,295
Adjusted Net Income per common share:			
- Basic	\$ 0.61	\$ 0.08	\$ 0.38
- Diluted	\$ 0.49	\$ 0.08	\$ 0.32
Weighted average number of shares – Basic	34,357,745	34,245,127	34,573,377
Weighted average number of shares – Diluted	45,516,245	34,965,562	46,021,610

We present Adjusted EBITDA and Adjusted Net Income as supplemental measures of our performance. 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 and (v) Other. EBITDA for the periods indicated is defined as net income (loss) before interest expense, net, income tax expense and depreciation and amortization. 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 define Adjusted Net Income for the periods 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 and (v) Other. Other charges within the adjustment line item of the Restructuring and other charges included in the above table are primarily related to legal and consulting service fees incurred in connection with our strategic evaluation. Other adjustment in the table above primarily represents legal expense related to the indemnification of a former employee.

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands of US dollars, except share data)
(Unaudited)

	September 30, 2019	December 31, 2018
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	9,990	5,810
Other current assets	7,437	9,867
Total current assets	374,243	352,745
Property, plant and equipment, net	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	\$ 588,137	\$ 583,196
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	4,563	9,133
Total current liabilities	152,103	132,659
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	17,018	18,239
Total liabilities	621,564	600,506
Commitments and contingencies		
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	(33,427)	(17,310)
Total liabilities and stockholders' equity	\$ 588,137	\$ 583,196

MAGNACHIP SEMICONDUCTOR CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of US dollars)
(Unaudited)

	<u>Three month Ended</u> September 30, 2019	<u>Nine month Ended</u> September 30, 2019	
		September 30, 2019	September 30, 2018
Cash flows from operating activities			
Net loss	\$ (1,607)	\$ (45,252)	\$ (1,520)
Adjustments to reconcile net loss to net cash provided by operating activities			
Depreciation and amortization	8,156	24,661	23,883
Provision for severance benefits	4,085	10,491	14,686
Amortization of debt issuance costs and original issue discount	578	1,712	1,623
Loss on foreign currency, net	25,903	50,512	26,931
Restructuring and other charges	(262)	470	—
Stock-based compensation	479	1,920	3,893
Loss on early extinguishment of long-term borrowings, net	—	42	—
Other	555	61	(964)
Changes in operating assets and liabilities			
Accounts receivable, net	(11,838)	(32,812)	(14,282)
Unbilled accounts receivable, net	8,007	14,208	1,187
Inventories, net	(7,910)	(6,321)	(30,296)
Other receivables	(1,845)	(4,814)	(2,669)
Other current assets	427	6,356	2,514
Accounts payable	(4,552)	27,585	17,414
Other accounts payable	(6,114)	(10,074)	(8,811)
Accrued expenses	951	3,831	(5,370)
Deferred revenue	739	(190)	3,560
Other current liabilities	403	(6,159)	1,533
Other non-current liabilities	(908)	808	1,035
Payment of severance benefits	(1,616)	(6,195)	(9,004)
Other	(767)	(821)	(329)
Net cash provided by operating activities	12,864	30,019	25,014
Cash flows from investing activities			
Proceeds from settlement of hedge collateral	7,998	12,625	11,290
Payment of hedge collateral	(8,629)	(17,024)	(10,965)
Proceeds from disposal of plant, property and equipment	—	202	1,685
Purchase of plant, property and equipment	(1,693)	(16,693)	(18,875)
Payment for property related to water treatment facility arrangement	—	—	(4,283)
Payment for intellectual property registration	(265)	(907)	(776)
Collection of guarantee deposits	151	539	794
Payment of guarantee deposits	—	(1,330)	(89)
Other	32	23	(38)
Net cash used in investing activities	(2,406)	(22,565)	(21,257)
Cash flows from financing activities			
Repurchase of long-term borrowings	—	(1,175)	—
Proceeds from exercise of stock options	889	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	(134)	(415)	(73)
Repayment of principal portion of lease liabilities	(56)	(174)	—
Net cash provided by (used in) financing activities	699	(3,314)	5,124
Effect of exchange rates on cash, cash equivalents and restricted cash	(3,569)	(5,237)	(3,974)
Net increase (decrease) in cash, cash equivalents and restricted cash	7,588	(1,097)	4,907
Cash, cash equivalents and restricted cash			
Beginning of the period	123,753	132,438	128,575
End of the period	\$ 131,341	\$ 131,341	\$ 133,482