PHOTRONICS INC
Form 10-Q
March 08, 2019

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 January 27, 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 0-15451

PHOTRONICS, INC.
(Exact name of registrant as specified in its charter)

Connecticut	06-0854886
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

15 Secor Road, Brookfield, Connecticut	06804
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code (203) 775-9000

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 periods that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes No

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

Large Accelerated Filer Accelerated Filer Non-Accelerated Filer Smaller Reporting Company

Emerging Growth Company

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

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

The registrant had 67,051,505 shares of common stock outstanding as of March 4, 2019.

Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements made by or on behalf of Photronics, Inc. (“Photronics”, the “Company”, “we”, “our”, or “us”). These statements are based on management’s beliefs, as well as assumptions made by, and information currently available to, management. Forward-looking statements may be identified by words like “expect,” “anticipate,” “believe,” “plan,” “project,” “could,” “esti “intend,” “may,” “will” and similar expressions, or the negative of such terms, or other comparable terminology. All forward-looking statements involve risks and uncertainties that are difficult to predict. In particular, any statement contained in this quarterly report on Form 10-Q or in other documents filed with the Securities and Exchange Commission in press releases or in the Company’s communications and discussions with investors and analysts in the normal course of business through meetings, phone calls, or conference calls regarding, among other things, the consummation and benefits of transactions, joint ventures, business combinations, divestitures and acquisitions, expectations with respect to future sales, financial performance, operating efficiencies, or product expansion, are subject to known and unknown risks, uncertainties, and contingencies, many of which are beyond the control of the Company. Various factors may cause actual results, performance, or achievements to differ materially from anticipated results, performance, or achievements expressed or implied by forward-looking statements. Factors that might affect forward-looking statements include, but are not limited to, overall economic and business conditions; economic and political conditions in international markets; the demand for the Company’s products; competitive factors in the industries and geographic markets in which the Company competes; the timing of orders received from customers; the gain or loss of significant customers; competition from other manufacturers; changes in accounting standards; federal, state and international tax requirements (including tax rate changes, new tax laws and revised tax law interpretations); changes in the jurisdictional mix of our earnings and changes in tax laws and rates; interest rate and other capital market conditions, including changes in the market price of the Company’s securities; foreign currency exchange rate fluctuations; changes in technology; technology or intellectual property infringement, including cybersecurity breaches, and other innovation risks; unsuccessful or unproductive research and development or capital expenditures; the timing, impact, and other uncertainties related to transactions and acquisitions, divestitures, business combinations, and joint ventures as well as decisions the Company may make in the future regarding the Company’s business, capital and organizational structures and other matters; the seasonal and cyclical nature of the semiconductor and flat panel display industries; management changes; changes in laws and government regulation impacting our operations or our products, including laws relating to export controls and import laws, rules and tariffs; the occurrence of regulatory proceedings, claims or litigation; damage or destruction to the Company’s facilities, or the facilities of its customers or suppliers, by natural disasters, labor strikes, political unrest, or terrorist activity; construction of new facilities and assembly of new equipment; dilutive issuances of the Company’s stock; the ability of the Company to (i) place new equipment in service on a timely basis; (ii) obtain additional financing; (iii) achieve anticipated synergies and cost savings; (iv) fully utilize its tools; (v) achieve desired yields, pricing, product mix, and market acceptance of its products and (vi) obtain necessary export licenses. Any forward-looking statements should be considered in light of these factors. Accordingly, there is no assurance that the Company’s expectations will be realized. The Company does not assume responsibility for the accuracy and completeness of the forward-looking statements and does not assume an obligation to provide revisions to any forward-looking statements, except as otherwise required by securities and other applicable laws.

PHOTRONICS, INC.

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PART I. FINANCIAL INFORMATION
Item 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

PHOTRONICS, INC.
Condensed Consolidated Balance Sheets
(in thousands, except per share amounts)
(unaudited)

	January 27, 2019	October 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$232,448	$329,277
Accounts receivable, net of allowance of $1,467 in 2019 and $1,526 in 2018	131,066	120,515
Inventories	27,874	29,180
Prepaid expenses	4,575	6,901
Other current assets	57,043	16,858
Total current assets	453,006	502,731
Property, plant and equipment, net	656,873	571,781
Intangible assets, net	11,272	12,368
Deferred income taxes	15,405	18,109
Other assets	9,338	5,020
Total assets	$1,145,894	$1,110,009
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	$3,720	$-
Current portion of long-term debt	57,927	57,453
Accounts payable	89,875	89,149
Accrued liabilities	43,005	44,474
Total current liabilities	194,527	191,076
Long-term debt	24,484	-
Deferred income taxes	908	643
Other liabilities	12,805	13,721
Total liabilities	232,724	205,440
Commitments and contingencies		
Equity:		
Preferred stock, $0.01 par value, 2,000 shares authorized, none issued and outstanding	-	-
Common stock, $0.01 par value, 150,000 shares authorized, 69,917 shares issued and 66,222 outstanding at January 27, 2019 and 69,700 shares issued and 67,142 outstanding at October 31, 2018	699	697

Additional paid-in capital	557,188	555,606
Retained earnings	236,665	231,445
Treasury stock, 3,695 shares at January 27, 2019 and 2,558 shares at October 31, 2018	(33,807)	(23,111)
Accumulated other comprehensive income (loss)	343	(4,966)
Total Photronics, Inc. shareholders' equity	761,088	759,671
Noncontrolling interests	152,082	144,898
Total equity	913,170	904,569
Total liabilities and equity	$1,145,894	$1,110,009

See accompanying notes to condensed consolidated financial statements.

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PHOTRONICS, INC.
Condensed Consolidated Statements of Income
(in thousands, except per share amounts)
(unaudited)

	Three Months Ended	
	January 27, 2019	January 28, 2018
Revenue	$124,712	$123,446
Cost of goods sold	98,610	95,784
Gross profit	26,102	27,662
Operating expenses:		
Selling, general and administrative	13,792	11,750
Research and development	4,263	4,104
Total operating expenses	18,055	15,854
Operating income	8,047	11,808
Other income (expense):		
Interest income and other income (expense), net	1,639	(3,531)
Interest expense	(531)	(574)
Income before income taxes	9,155	7,703
Income tax (provision) benefit	(1,387)	1,778
Net income	7,768	9,481
Net income attributable to noncontrolling interests	2,501	3,583
Net income attributable to Photronics, Inc. shareholders	$5,267	$5,898
Earnings per share:		
Basic	$0.08	$0.09
Diluted	$0.08	$0.09
Weighted-average number of common shares outstanding:		
Basic	66,583	68,755

Diluted	67,047	69,372

See accompanying notes to condensed consolidated financial statements.

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PHOTRONICS, INC.
Condensed Consolidated Statements of Comprehensive Income
(in thousands)
(unaudited)

	Three Months Ended	
	January 27, 2019	January 28, 2018
Net income	$7,768	$9,481
Other comprehensive income (loss), net of tax of $0:		
Foreign currency translation adjustments	6,572	30,087
Amortization of cash flow hedge	-	32
Other	19	(32)
Net other comprehensive income	6,591	30,087
Comprehensive income	14,359	39,568
Less: comprehensive income attributable to noncontrolling interests	3,783	8,433
Comprehensive income attributable to Photronics, Inc. shareholders	$10,576	$31,135

See accompanying notes to condensed consolidated financial statements.

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PHOTRONICS, INC.
Condensed Consolidated Statements of Equity
(in thousands)
(unaudited)

Three Months Ended January 27, 2019
Photronics, Inc. Shareholders

	Common Stock		Additional Paid-in	Retained	Treasury	Accumulated Other Comprehensive (Loss)	Non-controlling	Total
	Shares	Amount	Capital	Earnings	Stock	Income	Interests	Equity
Balance at October 31, 2018	69,700	$ 697	$ 555,606	$ 231,445	$ (23,111)	$ (4,966)	$ 144,898	$ 904,569
Adoption of ASU 2014-09	-	-	-	1,083	-	-	121	1,204
Adoption of ASU 2016-16	-	-	-	(1,130)	-	-	(3)	(1,133)
Net income	-	-	-	5,267	-	-	2,501	7,768
Other comprehensive income	-	-	-	-	-	5,309	1,282	6,591
Sale of common stock through employee stock option and purchase plans	94	1	521	-	-	-	-	522
Restricted stock awards vesting and expense	123	1	567	-	-	-	-	568
Share-based compensation expense	-	-	494	-	-	-	-	494
Contribution from noncontrolling interest	-	-	-	-	-	-	29,394	29,394
Dividends to noncontrolling interests	-	-	-	-	-	-	(26,102)	(26,102)
Repurchase of common stock of subsidiary	-	-	-	-	-	-	(9)	(9)
Purchase of treasury stock	-	-	-	-	(10,696)	-	-	(10,696)
Balance at January 27, 2019	69,917	$ 699	$ 557,188	$ 236,665	$ (33,807)	$ 343	$ 152,082	$ 913,170

Three Months Ended January 28, 2018
Photronics, Inc. Shareholders

Common Stock		Additional Paid-in	Retained	Accumulated Other Comprehensive	Non-controlling	Total
Shares	Amount	Capital	Earnings	Income	Interests	Equity

Balance at October 30, 2017	68,666	$ 687	$ 547,596	$ 189,390	$ 6,891	$ 120,731	$ 865,295
Net income	-	-	-	5,898	-	3,583	9,481
Other comprehensive income	-	-	-	-	25,237	4,850	30,087
Sale of common stock through employee stock option and purchase plans	116	1	701	-	-	-	702
Restricted stock awards vesting and expense	87	1	386	-	-	-	387
Share-based compensation expense	-	-	497	-	-	-	497
Contribution from noncontrolling interest	-	-	148	-	-	11,850	11,998
Balance at January 28, 2018	68,869	$ 689	$ 549,328	$ 195,288	$ 32,128	$ 141,014	$ 918,447

See accompanying notes to condensed consolidated financial statements.

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PHOTRONICS, INC.
Condensed Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Three Months Ended	
	January 27, 2019	January 28, 2018
Cash flows from operating activities:		
Net income	$7,768	$9,481
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	18,781	22,363
Changes in assets and liabilities:		
Accounts receivable	(9,333)	4,692
Inventories	(2,313)	(2,385)
Other current assets	(22,082)	432
Accounts payable, accrued liabilities, and other	(12,107)	(3,721)
Net cash (used in) provided by operating activities	(19,286)	30,862
Cash flows from investing activities:		
Purchases of property, plant and equipment	(106,925)	(10,995)
Government incentives	5,029	-
Other	19	(145)*
Net cash used in investing activities	(101,877)	(11,140)*
Cash flows from financing activities:		
Contribution from noncontrolling interest	29,394	11,998
Proceeds from debt	28,180	-
Repayments of long-term debt	-	(1,381)
Dividends paid to noncontrolling interests	(26,102)	-
Purchase of treasury stock	(10,696)	-
Proceeds from share-based arrangements	650	798
Other	(45)	(261)
Net cash provided by financing activities	21,381	11,154
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	2,961	9,767 *
Net (decrease) increase in cash, cash equivalents, and restricted cash	(96,821)	40,643 *
Cash, cash equivalents, and restricted cash at beginning of period	331,989 *	310,936*
Cash, cash equivalents, and restricted cash at end of period	$235,168	$351,579*
Supplemental disclosure information:		
Accrual for property, plant and equipment purchased during the period	$30,697	$1,544

Accrual for property, plant and equipment purchased with funds receivable from government incentives	$11,799	$-

* Amount has been modified to reflect the adoption of ASU 2016-18 (see Note 14)

See accompanying notes to condensed consolidated financial statements.
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PHOTRONICS, INC.
Notes to Condensed Consolidated Financial Statements
Three Months Ended January 27, 2019 and January 28, 2018
(unaudited)
(in thousands, except share amounts and per share data)

NOTE 1 - BASIS OF FINANCIAL STATEMENT PRESENTATION

Photronics, Inc. ("Photronics", "the Company", "we", “our”, or "us") is one of the world's leading manufacturers of photomasks, which are high precision photographic quartz or glass plates containing microscopic images of electronic circuits. Photomasks are a key element in the manufacture of semiconductors and flat panel displays ("FPDs"), and are used as masters to transfer circuit patterns onto semiconductor wafers and flat panel display substrates during the fabrication of integrated circuits ("ICs" or “semiconductors”), a variety of FPDs and, to a lesser extent, other types of electrical and optical components. We currently operate principally from nine manufacturing facilities; two of which are located in Europe, three in Taiwan, one in Korea, and three in the United States; and we have completed construction of two manufacturing facilities in China.

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information, and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for annual financial statements. In the opinion of management, adjustments, all of which are of a normal recurring nature, considered necessary for a fair presentation have been included. Our business is typically impacted during the first, and sometimes the second, quarter of our fiscal year by the North American, European, and Asian holiday periods, as some customers reduce their development and buying activities during those periods. Operating results for the interim period are not necessarily indicative of the results that may be expected for the fiscal year ending October 31, 2019. For further information, refer to the consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended October 31, 2018.

NOTE 2 - INVENTORIES

Inventories are stated at the lower of cost, determined under the first-in, first-out (“FIFO”) method, or net realizable value. Presented below are the components of inventory at the balance sheet dates:

	January 27, 2019	October 31, 2018
Finished goods	$82	$668
Work in process	870	3,402
Raw materials	26,922	25,110
	$27,874	$29,180

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NOTE 3 - PROPERTY, PLANT AND EQUIPMENT, NET

Property, plant and equipment, net consists of the following:

	January 27, 2019	October 31, 2018
Land	$11,246	$11,139
Buildings and improvements	125,180	124,771
Machinery and equipment	1,571,858	1,566,163
Leasehold improvements	19,632	19,577
Furniture, fixtures and office equipment	12,668	12,415
Construction in progress	230,391	128,649
	1,970,975	1,862,714
Accumulated depreciation and amortization	(1,314,102)	(1,290,933)
	$656,873	$571,781

Depreciation and amortization expense for property, plant and equipment was $17.6 million and $21.1 million for the three month periods ended January 27, 2019 and January 28, 2018, respectively.

In January 2017, we entered into a noncash transaction with a customer which resulted in the acquisition of equipment with fair values of approximately $6.7 million during the three month period ended January 28, 2018.

NOTE 4 – PDMCX JOINT VENTURE

In January 2018, Photronics, through its wholly-owned Singapore subsidiary (hereinafter, within this Note “we”, or “Photronics”), and Dai Nippon Printing Co., Ltd., through its wholly-owned subsidiary “DNP Asia Pacific PTE, Ltd.” (hereinafter, within this Note, “DNP”) entered into a joint venture under which DNP obtained a 49.99% interest in our recently-established IC business in Xiamen, China, which includes a facility currently under construction. The joint venture, known as “Photronics DNP Mask Corporation Xiamen” (hereinafter, “PDMCX”), was established to develop and manufacture photomasks for leading edge and advanced generation semiconductors. We entered into this joint venture to enable us to compete more effectively for the merchant photomask business in China and to benefit from the additional resources and investment that DNP will provide to enable us to offer advanced-process technology to our customers. No gain or loss was recorded upon the formation of this joint venture.

As of January 27, 2019, Photronics and DNP had each contributed cash of approximately $48 million to the joint venture. We estimate that, over the next several years, and per the PDMCX operating agreement (the Agreement), DNP and Photronics will each contribute an additional $32 million of cash, a portion of which will be financed through local borrowings.

Under the Agreement, DNP is afforded, under certain circumstances, the right to put its interest in PDMCX to Photronics. These circumstances include disputes regarding the strategic direction of PDMCX that may arise after the initial two-year term of the Agreement and cannot be resolved between the two parties. In addition, both Photronics and DNP have the option to purchase, or put, their interest from, or to, the other party, should their ownership interest fall below 20% for a period of more than six consecutive months. Under all such circumstances, the sales of ownership interests would be at the exiting party’s ownership percentage of the joint venture’s net book value, with closing to take place within three business days of obtaining required approvals and clearance.

We recorded net losses from the operations of PDMCX of approximately $1.3 million, and $0.5 million during the three month periods ended January 27, 2019 and January 28, 2018, respectively. General creditors of PDMCX do not have recourse to the assets of Photronics, Inc., and our maximum exposure to loss from PDMCX at January 27, 2019, was $44.9 million.

As required by the guidance in Topic 810 - “Consolidation” of the Accounting Standards Codification, we evaluated our involvement in PDMCX for the purpose of determining whether we should consolidate its results in our financial statements. The initial step of our evaluation was to determine whether PDMCX was a variable interest entity (“VIE”). Due to its lack of sufficient equity at risk to finance its activities without additional subordinated financial support, we determined that it was a VIE. Having made this determination, we then assessed whether we were the primary beneficiary of the VIE, and concluded that we were the primary beneficiary during the current and prior year reporting periods; thus, as required, the PDMCX financial results have been consolidated with Photronics, Inc. Our conclusion was based on the facts that we held a controlling financial interest in PDMCX (which resulted from our having the power to direct the activities that most significantly impacted its economic performance), had the obligation to absorb losses, and the right to receive benefits that could potentially be significant to PDMCX. Our conclusions that we had the power to direct the activities that most significantly affected the economic performance of PDMCX during the current and prior year reporting periods was based on our right to appoint the majority of its board of directors, which has, among others, the powers to manage the business (through its rights to appoint and evaluate PDMCX management), incur indebtedness, enter into agreements and commitments, and acquire and dispose of PDMCX’s assets. In addition, as a result of the 50.01% variable interest we held during the current and prior year periods, we had the obligation to absorb losses and the right to receive benefits that could potentially be significant to PDMCX.

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The carrying amounts of PDMCX assets and liabilities included in our condensed consolidated balance sheets are presented in the following table, together with our exposure to loss related to these assets and liabilities.

	January 27, 2019		October 31, 2018	
Classification	Carrying Amount	Photronics Interest	Carrying Amount	Photronics Interest
Current assets	$56,957	$ 28,479	$9,625	$ 4,813
Non-current assets	91,963	45,982	43,415	21,708
Total assets	148,920	74,461	53,040	26,521
Current liabilities	34,544	17,272	21,205	10,603
Non-current liabilities	24,501	12,251	20	10
Total liabilities	59,045	29,523	21,225	10,613
Net assets	$89,875	$ 44,938	$31,815	$ 15,908

NOTE 5 - DEBT

Debt consists of the following:

	January 27, 2019	October 28, 2018
3.25% convertible senior notes due in April 2019	$ 57,482	$ 57,453
Project Loan due in December 2025	14,824	-
Working Capital Loan due in January 2022	10,105	-
Short term debt due in February 2019	3,720	-
	86,131	57,453
Current portion	(61,647)	(57,453)
	$ 24,484	$ -

In January 2015, we privately exchanged $57.5 million in aggregate principal amount of our 3.25% convertible senior notes with a maturity date of April 1, 2016, for new 3.25% convertible senior notes with an aggregate principal amount of $57.5 million with a maturity date of April 1, 2019. The conversion rate of the new notes is the same as that of the exchanged notes, which were issued in March 2011 with a conversion rate of approximately 96 shares of common stock per $1,000 note principal, equivalent to a conversion price of $10.37 per share of common stock, and is subject to adjustment upon the occurrence of certain events, which are described in the indenture dated January 22, 2015. Note holders may convert each $1,000 principal amount of notes at any time prior to the close of business on the second scheduled trading day immediately preceding April 1, 2019, and we are not required to redeem the notes other than upon conversion prior to their maturity date. Interest on the notes accrues in arrears, and is paid semiannually through the notes' maturity date.

In November 2018, Xiamen American Japan Photronics Mask Co., Ltd. ("PDMCX"), an indirect majority owned joint venture subsidiary of Photronics, Inc., was approved for credit of $50 million, subject to certain limitations related to PDMCX registered capital at the time of the borrowing, pursuant to which PDMCX will enter into separate loan agreements ("the Project Loans") for each borrowing. The Project Loans, which are denominated in renminbi, are being used to finance certain capital expenditures in China. PDMCX has agreed to grant a lien on the land, building and certain equipment owned by PDMCX as collateral for the Project Loans. As of January 27, 2019, PDMCX had borrowed $14.8 million against this approval. This borrowing will be repaid in semiannual installments, which will commence in June 2020 and end in December 2022. In February 2019, PDMCX borrowed an additional $11.4 million, which will be repaid semiannually; repayments will commence in June 2023 and end in December 2025. The interest rates on the Project Loans are based on the benchmark lending rate of the People's Bank of China (4.9% at January 27, 2019). Interest incurred on these loans will be reimbursed through incentives provided by the Xiamen Torch Hi-Tech Industrial Development Zone, which provide for such reimbursements up to a prescribed limit.

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In November 2018, PDMCX was approved for credit of $25.0 million, subject to certain limitations related to PDMCX registered capital at the time of the borrowing, pursuant to which PDMCX may enter into separate loan agreements. No guarantees are required as part of this approval. As of January 27, 2019, PDMCX had borrowed $13.8 million against this approval of which $3.7 million were 90-day loans. The remaining $10.1 million borrowed (the “Working Capital Loans”) is to be repaid semiannually from the dates of the individual borrowings, with repayments commencing in May 2019 and ending in January 2022. The 90-day loans were repaid in our second quarter of 2019. These loans, which are denominated in renminbi and U.S. dollars are being used for general financing purposes, including payments of import and value added taxes. The interest rates on the 90-day loans were the market rate on the date of issuance (4.9%), and interest rates on the Working Capital Loans are approximately 5%, and are based on the RMB Loan Prime Rate of the National Interbank Funding Center, plus a spread of 67.75 basis points. Interest incurred on the loans will be reimbursed through incentives provided by the Xiamen Torch Hi-Tech Industrial Development Zone, which provide for such reimbursements up to a prescribed limit.

In September 2018, we entered into an amended and restated credit agreement (“the new agreement”) that expires in September 2023. The new agreement, which replaced our prior credit facility, has a $50 million borrowing limit, with an expansion capacity to $100 million, and is secured by substantially all of our assets located in the United States and common stock we own in certain of our foreign subsidiaries. The new agreement limits the amount we can pay in cash dividends on Photronics, Inc. stock, and contains the following financial covenants: minimum interest coverage ratio, total leverage ratio and minimum unrestricted cash balance, all of which we were in compliance with at January 27, 2019. We had no outstanding borrowings against the new agreement at January 27, 2019, and $50 million was available for borrowing. The interest rate on the new agreement (2.5% at January 27, 2019) is based on our total leverage ratio at LIBOR plus a spread, as defined in the credit facility.

NOTE 6 - REVENUE

We adopted Accounting Standards Update 2014-09 and all subsequent amendments which are collectively codified in Accounting Standards Codification Topic 606 – “Revenue from Contracts with Customers” (“Topic 606”) - on November 1, 2018, under the modified retrospective transition method, only to contracts that were not complete as of the date of adoption. This approach requires prospective application of the guidance with a cumulative effect adjustment to retained earnings to reflect the impact of the adoption on contracts that were not complete as of the date of the adoption. In accordance with the modified retrospective transition method, the results of the prior year period presented have not been adjusted for the effects of Topic 606.

Under Topic 606, we recognize revenue when, or as, control of a good or service transfers to a customer, in an amount that reflects the consideration to which we expect to be entitled in exchange for transferring those goods or services, whereas, prior to our adoption of Topic 606, we recognized revenue when we shipped to customers or, under some arrangements, when the customers received the goods. The following tables present the impacts of our adoption of Topic 606 on our January 27, 2019, condensed consolidated balance sheet and our condensed consolidated statements of income and cash flows for the three months ended January 27, 2019.

Condensed Consolidated Balance Sheet
January 27, 2019

	As Reported	Adjustments	Balance without Adoption of Topic 606
Assets			
Accounts receivable	$ 131,066	$ (319)	$ 130,747
Inventory	27,874	4,678	32,552
Other current assets	57,043	(6,846)	50,197
Deferred income taxes	15,405	(74)	15,331

Liabilities			
Accrued liabilities	$ 43,005	$ 246	$ 43,251
Deferred income taxes	908	(318)	590
Equity			
Retained earnings	$ 236,665	$ (1,788)	$ 234,877
Noncontrolling interests	152,082	(553)	151,529

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Condensed Consolidated Statement of Income

Three Months Ended January 27, 2019

	As Reported	Adjustments	Balance without Adoption of Topic 606
Revenue	$ 124,712	$ (2,245)	$ 122,467
Cost of goods sold	98,610	(901)	97,709
Gross margin	26,102	(1,344)	24,758
Provision for taxes	1,387	(208)	1,179
Net income	7,768	(1,136)	6,632
Noncontrolling interests	2,501	(431)	2,070
Income attributable to Photronics, Inc. shareholders	$ 5,267	$ (705)	$ 4,562

Condensed Consolidated Statement of Cash Flows

Three Months Ended January 27, 2019

	As Reported	Adjustments	Balance without Adoption of Topic 606
Net Income	$ 7,768	$ (1,136)	$ 6,632
Changes in operating accounts:			
Accounts receivable	$ (9,333)	$ (287)	$ (9,620)
Inventories	(2,313)	(933)	(3,246)
Other current assets	(22,082)	2,223	(19,859)
Accounts payable, accrued liabilities, and other	(12,107)	133	(11,974)

We account for an arrangement as a revenue contract when each party has approved and is committed to perform under the contract, the rights of the contracting parties regarding the goods or services to be transferred and the payment terms are identifiable, the arrangement has commercial substance, and collection of consideration is probable. Substantially all of our revenue comes from the sales of photomasks. We typically contract with our customers to sell sets of photomasks (referred to as “mask sets”), which are comprised of multiple layers, the predominance of which we invoice as they ship to customers. As the photomasks are manufactured to customer specifications they have no alternative use to us and, as our contracts generally provide us with the right to payment for work completed to date, we recognize revenue as we perform, or “over time” on most of our contracts. We measure our performance to date using an input method, which is based on our estimated costs to complete the various manufacturing phases of a photomask. At the end of a reporting period, there will be a number of revenue contracts on which we have performed; for any such contracts that we are entitled to be compensated for our costs incurred plus a reasonable profit, we recognize revenue and a corresponding contract asset for such performance. We account for shipping and handling activities that we perform after a customer obtains control of a good as being activities to fulfill our promise to transfer the good to the customer, rather than as promised services, or performance obligations, under the contract.

As stated above, photomasks are manufactured in accordance with proprietary designs provided by our customers; thus, they are individually unique. Due to their uniqueness and other factors, their transaction prices are individually established through negotiations with customers; consequently, our photomasks do not have standard or “list” prices. The transaction prices of the vast majority of our revenue contracts include only fixed amounts of consideration. In certain instances, such as when we offer a customer an early payment discount, an estimate of variable consideration would be included in the transaction price, but only to the extent that a significant reversal of revenue would not occur when the uncertainty related to the variability is resolved.

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Contract Assets, Contract Liabilities and Accounts Receivable

We recognize a contract asset when our performance under a contract precedes our receipt of consideration from a customer, or before payment is due, and our receipt of consideration is conditional upon factors other than the passage of time. Contract assets reflect our transfer of control to customers of photomasks that are in-process or completed but not yet shipped. A receivable is recognized when we have an unconditional right to payment for our performance, which generally occurs when we ship the photomasks. Our contract assets account primarily consist of a significant amount of our work-in-process inventory and fully manufactured photomasks which have not yet shipped, if we have an enforceable right to collect consideration (including a reasonable profit), in the event the in-process orders are cancelled by customers. On an individual contract basis, we net contract assets with contract liabilities (deferred revenue) for financial reporting purposes. Our contract assets and liabilities are typically classified as current, as our production cycle and our lead times are both under one year. Contract assets of $6.8 million are included in “Other” current assets, and contract liabilities of $9.5 million are included in “Other” current liabilities in our January 27, 2019 condensed consolidated balance sheet. At November 1, 2018, our date of adoption of Topic 606, we had contract assets of $4.6 million and contract liabilities of $7.8 million. We did not impair any contract assets during the three month period ended January 27, 2019, and we recognized $0.7 million of revenue from the settlement of contract liabilities that existed at the beginning of that period.

We generally record our accounts receivables at their billed amounts. All outstanding past due customer invoices are reviewed during, and at the end of, every period for collectibility. To the extent we believe a loss on the collection of a customer invoice is probable, we record the loss and credit the allowance for doubtful accounts. In the event that an amount is determined to be uncollectible, we charge the allowance for doubtful accounts and eliminate the related receivable. We did not incur any credit losses on our accounts receivable during the three month period ended January 27, 2019.

Our invoice terms generally range from net thirty to ninety days, depending on both the geographic market in which the transaction occurs and our payment agreements with specific customers. In the event that our evaluation of a customer’s business prospects and financial condition indicate that the customer presents a collectibility risk, we require payment in advance of performance. We have elected the practical expedient allowed under Topic 606 that permits us not to adjust a contract’s promised amount of consideration to reflect a financing component when the period between when we transfer control of goods or services to customers and when we are paid, is one year or less.

In instances when we are paid in advance of our performance, we record a contract liability and, as allowed under the practical expedient in Topic 606, recognize interest expense only if the period between when we receive payment from the customer and the date when we expect to be entitled to the payment is greater than one year. Historically, advance payments we’ve received from customers have not preceded the completion of our performance obligations by more than one year.

Disaggregation of Revenue

The following tables present our revenue for the quarter ended January 27, 2019, disaggregated by product type, geographic location, and timing of recognition.

Revenue by Product Type	Three Months Ended January 27, 2019
IC	
High-end	$ 34,566
Mainstream	60,314
Total IC	$ 94,880

FPD		
High-end	$	21,466
Mainstream		8,366
Total FPD	$	29,832
	$	124,712

Revenue by Geographic Location		
Taiwan	$	57,740
Korea		35,237
United States		22,472
Europe		8,354
Other		909
	$	124,712

Revenue by Timing of Recognition		
Over time	$	120,845
At a point in time		3,867
	$	124,712

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Contract Costs

We pay commissions to third party sales agents for certain sales that they obtain for us. However, the basis of the commissions is the transaction prices of the sales, which are completed in less than one year; thus, no relationship is established with a customer that will result in future business. Therefore, we would not recognize any portion of these sales commissions as costs of obtaining contract assets, nor do we currently foresee other circumstances under which we would recognize such assets.

Remaining Performance Obligations

As we are typically required to fulfill customer orders within a short time period, our backlog of orders is generally not in excess of one to two weeks for IC photomasks and two to three weeks for FPD photomasks. As allowed under Topic 606, we have elected not to disclose our remaining performance obligations, comprised of completion of the manufacturing process of in-process photomasks, related to contracts that have an original duration of one year or less.

Sales and Similar Taxes

We report our revenue net of any sales or similar taxes we collect on behalf of governmental entities.

Product Warranty

Our photomasks are sold under warranties that generally range from 30 to 90 days. We warrant that our photomasks conform to customer specifications, and that we will repair or replace, at our option, any photomasks that fail to do so. The warranties do not represent separate performance obligations in our revenue contracts. Historically, customer claims under warranty have been immaterial.

NOTE 7 - SHARE-BASED COMPENSATION

In March 2016, shareholders approved a new equity incentive compensation plan (the “Plan”), under which incentive stock options, non-qualified stock options, stock grants, stock-based awards, restricted stock, restricted stock units, stock appreciation rights, performance units, performance stock, and other stock or cash awards may be granted. Shares to be issued under the Plan may be authorized and unissued shares, issued shares that have been reacquired by us (in the open-market or in private transactions), shares that are being held in the treasury, or a combination thereof. The maximum number of shares of common stock approved that may be issued under the Plan is four million shares. Awards may be granted to officers, employees, directors, consultants, advisors, and independent contractors of Photronics or its subsidiaries. In the event of a change in control (as defined in the Plan), the vesting of awards may be accelerated. The Plan, aspects of which are more fully described below, prohibits further awards from being issued under prior plans. We incurred total share-based compensation expenses of $1.1 million and $0.9 million in the three month periods ended January 27, 2019 and January 28, 2018, and we received cash from option exercises of $0.5 million and $0.7 million during those respective periods. No share-based compensation cost was capitalized as part of an asset and no related income tax benefits were recorded during the periods presented.

Stock Options

Option awards generally vest in one-to-four years and have a ten-year contractual term. All incentive and non-qualified stock option grants have an exercise price no less than the market value of the underlying common stock on the date of grant. The grant date fair values of options are based on closing prices of our common stock on the dates of grant and are calculated using the Black-Scholes option pricing model. Expected volatility is based on the historical volatility of our common stock. We use historical option exercise behavior and employee termination data to estimate expected term, which represents the period of time that the options granted are expected to remain outstanding. The risk-free rate of return for the estimated term of an option is based on the U.S. Treasury yield curve in effect at the date of grant.

There were 132,000 share options granted during the three month period ended January 27, 2019, with a weighted-average grant date fair value of $3.31 per share, and there were 252,000 share options granted during the three month period ended January 28, 2018, with a weighted-average grant date fair value of $2.74 per share. As of January 27, 2019, the total unrecognized compensation cost related to unvested option awards was approximately $1.6 million. That cost is expected to be recognized over a weighted-average amortization period of 2.4 years.

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The weighted-average inputs and risk-free rates of return used to calculate the grant date fair value of options issued during the three month periods ended January 27, 2019 and January 28, 2018, are presented in the following table.

	Three Months Ended	
	January 27, 2019	January 28, 2018
Volatility	33.1 %	31.6 %
Risk free rate of return	2.5-2.9 %	2.2 %
Dividend yield	0.0 %	0.0 %
Expected term	5.1 years	5.0 years

Information on outstanding and exercisable option awards as of January 27, 2019, is presented below.

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at January 27, 2019	2,452,168	$ 8.84	5.9 years	$ 4,886
Exercisable at January 27, 2019	1,831,351	$ 8.42	5.1 years	$ 4,373

Restricted Stock

We periodically grant restricted stock awards, the restrictions on which typically lapse over a service period of one-to-four years. The fair value of the awards is determined on the date of grant, based on the closing price of our common stock. There were 435,000 restricted stock awards issued during the three month period ended January 27, 2019, with a weighted-average grant date fair value of $9.80 per share, and there were 280,000 restricted stock awards issued during the three month period ended January 28, 2018, with a weighted-average grant date fair value of $8.63 per share. As of January 27, 2019, the total compensation cost not yet recognized related to unvested restricted stock awards was approximately $6.3 million. That cost is expected to be recognized over a weighted-average amortization period of 3.1 years. As of January 27, 2019, there were 724,113 shares of restricted stock outstanding.

NOTE 8 - INCOME TAXES

We calculate our provision for income taxes at the end of each interim reporting period on the basis of an estimated annual effective tax rate adjusted for tax items that are discrete to each period.

The effective tax rate of 15.2% differs from the U.S. statutory rate of 21.0% in the three month period ended January 27, 2019, primarily due to earnings being taxed at lower statutory rates in foreign jurisdictions, the settlement of a tax audit, and the benefit of tax holidays and investment credits in certain foreign jurisdictions.

Valuation allowances in jurisdictions with historic losses, including the U.S., eliminate the tax benefit of losses in these jurisdictions.

Unrecognized tax benefits related to uncertain tax positions were $0.9 million at January 27, 2019, and $1.9 million at October 31, 2018, all of which, if recognized, would favorably impact the Company’s effective tax rate. Accrued interest and penalties related to unrecognized tax benefits was $0.1 million at January 29, 2019 and October 31, 2018. Reduction in the amount of unrecognized tax benefits primarily resulted from the settlement of a tax audit with the tax authorities in Taiwan. Although timing of the expirations of statutes of limitations may be uncertain, as they can be dependent upon the settlement of tax audits, the Company believes that it is reasonably possible that an immaterial amount of its uncertain tax positions (including accrued interest and penalties, net of tax benefits) may be resolved over the next twelve months. The resolution of these uncertain tax positions may result from either or both the lapses of statutes of limitations and tax settlements.

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We were granted a five-year tax holiday in Taiwan that expires in December 31, 2019. This tax holiday reduced foreign taxes by $0.8 million, and $0.1 million in the three month periods ended January 27, 2019 and January 28, 2018, respectively, with a one half-cent per share impact in the January 27, 2019 period and a de minimis per share effect in the January 28, 2018 period.

The effective tax rate benefit of (23.1%) differs from the post U.S. Tax Reform blended statutory rate of 23.4% in the three month period ended January 28, 2018, primarily due to the benefit from U.S. and Taiwan Tax Reform (as discussed below), earnings being taxed at lower statutory rates in foreign jurisdictions, and the benefit of various investment credits in a foreign jurisdiction.

On December 22, 2017, the U.S. Tax Cuts and Jobs Act (the "Act"), was signed into law, enacting significant changes to the United States Internal Revenue Code of 1986, as amended. Based on the enactment date, we accounted for the Act in our interim period ended January 28, 2018. In December 2017, the Securities and Exchange Commission released Staff Accounting Bulletin No. 118 ("SAB 118") to address situations in which the accounting under Accounting Standards Codification 740 is incomplete for certain income tax effects of the Act. We adopted SAB 118 in our first quarter of fiscal year 2018, and finalized the effects in our fourth quarter of fiscal 2018. In the period ended January 28, 2018, we recognized the following effects in our provision for income taxes:

- The Act repealed the corporate alternative minimum tax ("AMT") for tax years beginning after December 31, 2017, and provided that existing AMT credit carryforwards are fully refundable. We recognized a $3.9 million benefit on AMT credit carryforwards that we previously determined were not more likely than not going to be realized and reversed the previously recorded valuation allowance.
- As of January 1, 2018, the Act reduced the corporate income tax rate from a maximum 35% to a flat 21%, requiring us to revalue our deferred tax assets and liabilities utilizing the rate applicable to the period when a temporary difference will reverse. Our net deferred tax asset is fully offset by a valuation allowance, and the revaluation of the deferred tax assets and liabilities resulted in a net zero impact for the period.
- The Act imposed a transition tax for a one-time deemed repatriation of the accumulated earnings of foreign subsidiaries. The entire amount of transition tax was fully offset by tax credits, including carryforwards, that resulted in a provisional net zero impact on the period.

On January 18, 2018, the Taiwan Legislature Yuan approved amendments to the Income Tax Act, enacting an increase in the corporate tax rate from 17% to 20%, requiring us to revalue our deferred tax assets and liabilities utilizing the rate applicable to the period when a temporary difference will reverse. Accordingly, a net benefit of $0.2 million is reflected in our tax provision for the period.

Adoption of New Accounting Standard

In the first quarter of 2019, the Company adopted Accounting Standards Update 2016-16 – "Intra-Entity Transfers Other Than Inventory", which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. In connection therewith, we recorded a transition adjustment of $1.1 million that reduced prepaid income taxes (included in Other current assets on the condensed consolidated balance sheets) against beginning retained earnings.

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NOTE 9 - EARNINGS PER SHARE

The calculation of basic and diluted earnings per share is presented below.

	Three Months Ended	
	January 27, 2019	January 28, 2018
Net income attributable to Photronics, Inc. shareholders	$5,267	$5,898
Effect of dilutive securities	-	-
Earnings used for diluted earnings per share	$5,267	$5,898
Weighted-average common shares computations:		
Weighted-average common shares used for basic earnings per share	66,583	68,755
Effect of dilutive securities:		
Share-based payment awards	464	617
Potentially dilutive common shares	464	617
Weighted-average common shares used for diluted earnings per share	67,047	69,372
Basic earnings per share	$0.08	$0.09
Diluted earnings per share	$0.08	$0.09

The table below shows the outstanding weighted-average share-based payment awards that were excluded from the calculation of diluted earnings per share because their exercise price exceeded the average market value of the common shares for the period or, under application of the treasury stock method, they were otherwise determined to be antidilutive. The table also shows convertible notes that, if converted, would be antidilutive.

	Three Months Ended	
	January 27, 2019	January 28, 2018
Convertible notes	5,542	5,542
Share-based payment awards	1,063	1,583
Total potentially dilutive shares excluded	6,605	7,125

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NOTE 10 - CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME BY COMPONENT

The following tables set forth the changes in our accumulated other comprehensive income by component (net of tax of $0) for the three month periods ended January 27, 2019 and January 28, 2018.

	Three Months Ended January 27, 2019		
	Foreign Currency Translation Adjustments	Other	Total
Balance at November 1, 2018	$(4,328)	$(638)	$(4,966)
Other comprehensive income	6,572	19	6,591
Less: other comprehensive income attributable to noncontrolling interests	1,273	9	1,282
Balance at January 27, 2019	$971	$(628)	$343

	Three Months Ended January 28, 2018			
	Foreign Currency Translation Adjustments	Amortization of Cash Flow Hedge	Other	Total
Balance at October 30, 2017	$7,627	$ (48)	$(688)	$6,891
Other comprehensive income (loss) before reclassifications	30,087	-	(32)	30,055
Amounts reclassified from other comprehensive income	-	32		