GT Advanced Technologies Inc. (GTAT)

10-Q

Quarterly report pursuant to sections 13 or 15(d)
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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 29, 2012

or

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

For the transition period to

Commission file number: 001-34133

GT Advanced Technologies Inc.

(Exact name of registrant as specified in its charter)

Delaware (State of incorporation)	**03-0606749** (I.R.S. Employer Identification No.)
20 Trafalgar Square **Nashua, New Hampshire** (Address of principal executive offices)	**03063** (Zip Code)

Registrant's telephone number, including area code: **(603) 883-5200**

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 ☐

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

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

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

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 November 2, 2012, approximately 119,010,796 shares of the registrant's common stock, $0.01 par value per share, were issued and outstanding.

GT ADVANCED TECHNOLOGIES INC.
QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED September 29, 2012

Table of Contents

		Page
	PART I. FINANCIAL INFORMATION	
Item 1.	Financial Statements:	
	Condensed Consolidated Balance Sheets (unaudited)	1
	Condensed Consolidated Statements of Operations (unaudited)	2
	Condensed Consolidated Statements of Comprehensive Income (unaudited)	3
	Condensed Consolidated Statements of Cash Flows (unaudited)	4
	Notes to Condensed Consolidated Financial Statements (unaudited)	5
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	24
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	40
Item 4.	Controls and Procedures	42
	PART II. OTHER INFORMATION	
Item 1.	Legal Proceedings	42
Item 1A.	Risk Factors	42
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	65
Item 3.	Defaults Upon Senior Securities	66
Item 4.	Mine Safety Disclosures	66
Item 5.	Other Information	66
Item 6.	Exhibits	67
Signatures		70

PART I—FINANCIAL INFORMATION

Item 1—*Financial Statements*

GT Advanced Technologies Inc.
Condensed Consolidated Balance Sheets
(In thousands, except per share data)
(Unaudited)

	September 29, 2012	March 31, 2012
Assets		
Current assets:		
Cash and cash equivalents	$ 479,219	$ 350,903
Accounts receivable, net	11,453	65,676
Inventories	216,282	193,295
Deferred costs	36,154	91,740
Vendor advances	99,549	85,396
Deferred income taxes	12,271	13,857
Refundable income taxes	1,516	1,516
Prepaid expenses and other current assets	13,981	12,117
Total current assets	870,425	814,500
Property, plant and equipment, net	111,833	99,982
Other assets	16,141	20,306
Intangible assets, net	81,272	86,357
Deferred cost	4,394	9,293
Goodwill	102,152	102,152
Total assets	$ 1,186,217	$ 1,132,590
Liabilities and stockholders' equity		
Current liabilities:		
Current portion of long-term debt	$ 9,063	$ 3,750
Accounts payable	43,693	34,323
Accrued expenses	30,551	37,074
Contingent consideration	4,819	16,071
Customer deposits	251,601	334,098
Deferred revenue	80,366	165,149
Accrued income taxes	1,685	37,620
Total current liabilities	421,778	628,085
Long-term debt	134,125	71,250
Convertible notes	154,946	—
Deferred income taxes	35,871	38,918
Deferred revenue	12,787	31,010
Contingent consideration	—	6,402
Other non-current liabilities	711	547
Accrued income taxes	25,465	24,824
Total liabilities	$ 785,683	$ 801,036
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, 10,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.01 par value; 500,000 shares authorized, 118,938 and 118,331 shares issued and outstanding as of September 29, 2012 and March 31, 2012, respectively	1,189	1,183
Additional paid-in capital	183,073	131,563
Accumulated other comprehensive income (loss)	176	(187)
Retained earnings	216,096	198,995
Total stockholders' equity	400,534	331,554
Total liabilities and stockholders' equity	$ 1,186,217	$ 1,132,590

See accompanying notes to these condensed consolidated financial statements.

GT Advanced Technologies Inc.
Condensed Consolidated Statements of Operations
(In thousands, except per share data)
(Unaudited)

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Revenue	$ 110,061	$ 217,691	$ 277,313	$ 448,787
Cost of revenue	75,033	122,606	182,079	240,313
Gross profit	35,028	95,085	95,234	208,474
Operating expenses:				
Research and development	18,767	10,008	32,706	21,280
Selling and marketing	3,123	7,114	6,950	13,267
General and administrative	15,428	19,582	30,561	35,110
Contingent consideration expense	(9,943)	2,787	(9,788)	3,467
Amortization of intangible assets	2,538	1,760	5,085	2,830
Total operating expenses	29,913	41,251	65,514	75,954
Income from operations	5,115	53,834	29,720	132,520
Other income (expense):				
Interest income	27	136	33	227
Interest expense	(1,620)	(1,842)	(2,599)	(5,354)
Other, net	(431)	151	(916)	74
Income before income taxes	3,091	52,279	26,238	127,467
Provision for income taxes	747	15,364	9,137	38,483
Net Income	$ 2,344	$ 36,915	$ 17,101	$ 88,984
Net income per share:				
Basic	$ 0.02	$ 0.29	$ 0.14	$ 0.70
Diluted	$ 0.02	$ 0.29	$ 0.14	$ 0.69
Weighted-average number of shares used in per share calculations:				
Basic	118,769	126,734	118,607	126,330
Diluted	119,874	129,075	119,702	128,870

See accompanying notes to these condensed consolidated financial statements.

GT Advanced Technologies Inc.
Condensed Consolidated Statements of Comprehensive Income
(In thousands, except per share data)
(Unaudited)

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Net Income	$ 2,344	$ 36,915	$ 17,101	$ 88,984
Other comprehensive income (loss), net of tax:				
Change in fair value of cash flow hedging instruments, net of tax effect of $(274), $154, $(337) and $(293), respectively	338	(753)	368	(70)
Foreign currency translation adjustments	192	156	(5)	357
Other comprehensive income (loss)	530	(597)	363	287
Comprehensive income	$ 2,874	$ 36,318	$ 17,464	$ 89,271

See accompanying notes to these condensed consolidated financial statements.

GT Advanced Technologies Inc.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Six Months Ended	
	September 29, 2012	October 1, 2011
Cash flows from operating activities:		
Net income	$ 17,101	$ 88,984
Adjustments to reconcile net income to net cash (used in) provided by operating activities:		
Amortization expense	5,085	2,830
Depreciation expense	7,039	4,000
Convertible notes discount amortization	62	—
Contingent consideration expense	(13,179)	2,619
Deferred income tax benefit	(5,220)	(9,142)
Provision for excess and obsolete inventory	3,099	7,149
Share-based compensation expense	8,921	6,896
Excess tax benefits from share-based awards	(92)	(3,177)
Amortization of deferred financing costs	519	3,056
Other adjustments, net	2,195	541
Changes in operating assets and liabilities (excluding impact of acquired assets and assumed liabilities):		
Restricted cash	—	(10,220)
Accounts receivable	54,079	18,505
Inventories	(26,554)	(35,548)
Deferred costs	60,485	7,997
Vendor advances	(10,941)	(16,937)
Prepaid expenses and other assets	(2,169)	(5,292)
Accounts payable and accrued expenses	10,788	(24,800)
Customer deposits	(82,497)	154,334
Deferred revenue	(103,007)	15,303
Income taxes	(35,214)	17,324
Other, net	445	1,824
Net cash (used in) provided by operating activities	(109,055)	226,246
Cash flows from investing activities:		
Purchases and deposits on property, plant and equipment	(21,399)	(18,073)
Proceeds from sale of property, plant and equipment	88	—
Other investing activities	—	392
Acquisitions, net of acquired cash	—	(60,910)
Net cash used in investing activities	(21,311)	(78,591)
Cash flows from financing activities:		
Borrowings under credit facility	70,000	—
Principal payments under credit facility	(1,813)	(29,375)
Proceeds from issuance of convertible notes	220,000	—
Cash paid for bond hedges	(57,923)	—
Proceeds from issuance of warrants	41,623	—
Proceeds and related excess tax benefits from exercise of share-based awards	462	8,996
Payments of contingent consideration from business combinations	(4,475)	(4,456)
Payments related to share repurchases to satisfy statutory minimum tax withholdings	(872)	(1,673)
Deferred financing costs	(8,020)	(102)
Other financing activities	(293)	(43)
Net cash (used in) provided by financing activities	258,689	(26,653)
Effect of foreign exchange rates on cash	(7)	13
Increase in cash and cash equivalents	128,316	121,015
Cash and cash equivalents at beginning of period	350,903	362,749
Cash and cash equivalents at end of period	$ 479,219	$483,764
Supplemental cash flow information:		
Cash paid for interest	$ 1,902	$ 2,180
Non-cash investing and financing activities:		
Increase (decrease) in accounts payable and accrued expenses for property, plant and equipment	$ (7,875)	$ 2,233
Contingent consideration from acquisitions	$ —	$ 13,858
Property, plant and equipment acquired under capital lease	$ —	$ 1,021
Unpaid deferred financing costs	$ 635	$ —

See accompanying notes to these condensed consolidated financial statements.

GT Advanced Technologies Inc.
Notes to Condensed Consolidated Financial Statements
(In thousands, except per share data)

1. Basis of Presentation

These accompanying unaudited condensed consolidated financial statements of GT Advanced Technologies Inc. and subsidiaries (the "Company") have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and the Securities and Exchange Commission's ("SEC") instructions for interim financial information. In the opinion of management, the accompanying financial statements contain all adjustments consisting of normal recurring adjustments necessary to present fairly in all material respects the financial position, results of operations and cash flows for the periods presented. The results for the three and six months ended September 29, 2012 are not necessarily indicative of the results to be expected for any other interim period or for any future year. The accompanying financial statements should be read in conjunction with the audited consolidated financial statements and footnotes included in the Company's Annual Report on Form 10-K ("Annual Report") for the fiscal year ended March 31, 2012, filed with the SEC on May 25, 2012.

The condensed consolidated balance sheet as of March 31, 2012 has been derived from the audited financial statements as of that date but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements.

Fiscal Year End Change

On April 16, 2012, the board of directors of the Company voted to amend the Company's amended and restated by laws to provide that the Company's fiscal year will end on December 31 of each year. Prior to this amendment, the Company's by-laws had provided that fiscal years ended on the Saturday closest to March 31st of each year. As a result of this change to the fiscal year end, the Company will report a nine-month transition period consisting of the period from April 1, 2012 to December 31, 2012, and the 2013 fiscal year will begin on January 1, 2013 and end on December 31, 2013.

Reclassifications

Certain reclassifications have been made to prior year financial statements to conform to the current year presentation. Specifically, contingent consideration expense of $2,787 and $3,467 for the three- and six- month periods ended October 1, 2011, respectively, was previously included in general and administrative expense, but are now stated separately in the Company's condensed consolidated statements of operations.

2. Significant Accounting Policies

The Company's significant accounting policies are disclosed in Note 2 to the Consolidated Financial Statements included in the Annual Report for the fiscal year ended March 31, 2012, filed with the SEC on May 25, 2012. There were no significant changes to the significant accounting policies during the six months ended September 29, 2012, with the exception of the following:

Convertible Senior Notes. In accordance with Financial Accounting Standards Board ("FASB") ASC Topic 470-20, *Debt with Conversion and Other Options*, the Company separately accounts for the liability and equity components of its $220,000 aggregate principal of 3.00% convertible senior notes due 2017 issued on September 28, 2012 (the "Notes"). The estimated fair value of the liability component is computed based on an assessment of the fair value of a similar debt instrument that does not include a conversion feature. The equity component, which is recognized as a debt discount and recorded in additional paid-in capital, represents the difference between the gross proceeds from the issuance of the notes and the estimated fair value of the liability component at the date of issuance. The debt discount is amortized over the expected life of a similar debt instrument without the equity component. The effective interest rate used to amortize the debt discount is based on our estimated non-convertible borrowing rate as of the date the notes were issued.

3. Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2011, the FASB issued Accounting Standards Update No. 2011-05, *Presentation of Comprehensive Income*. This standard eliminates the previous option to report other comprehensive income and its components in the statement of changes in stockholders' equity. The amendment requires that all non-owner changes in stockholders' equity be presented either in a single statement of comprehensive income or in two separate but consecutive statements. The standard is intended to enhance comparability between entities that report under U.S. GAAP and those that report under International Financial Reporting Standards, and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. The amendments in this update are to be applied retrospectively. The Company adopted this standard in the quarter ended June 30, 2012. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

In September 2011, the FASB issued Accounting Standards Update No. 2011-08, *Testing Goodwill for Impairment*, which amends the guidance on testing goodwill for impairment. Under the revised guidance, entities testing goodwill for impairment have the option of performing a qualitative assessment before calculating the fair value of the reporting unit. If entities determine, on the basis of qualitative factors, that the fair value of the reporting unit is more likely than not less than the carrying amount, the two-step impairment test would be required. This amendment does not change how goodwill is calculated or assigned to reporting units, nor does it revise the requirement to test goodwill annually for impairment. In addition, it does not amend the requirement to test goodwill for impairment between annual tests if events or circumstances warrant; however, it does revise the examples of events and circumstances that an entity should consider. The Company adopted this standard in the quarter ended June 30, 2012. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

4. Fair Value Measurements

Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants based on assumptions that market participants would use in pricing an asset or liability. As a basis for classifying the assumptions used, a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value, is applied as follows: (Level 1) observable inputs such as quoted prices in active markets for identical assets or liabilities; (Level 2) inputs other than the quoted prices in active markets that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

The following table provides the assets and liabilities measured and reported at fair value on a recurring basis at September 29, 2012 and March 31, 2012:

	September 29, 2012			
	Total Carrying Value	**Fair Value Measurements Using**		
		(Level 1)	**(Level 2)**	**(Level 3)**
Assets:				
Money market mutual funds - assets	$ 200,000	$ 200,000		
Forward foreign exchange contracts - assets	$ 48		$ 48	
Liabilities:				
Forward foreign exchange contracts - liabilities	$ 183		$ 183	
Contingent consideration	$ 4,819			$ 4,819

	March 31, 2012			
	Total Carrying Value	Fair Value Measurements Using		
		(Level 1)	(Level 2)	(Level 3)
Assets:				
Forward foreign exchange contracts—assets	$ 74	$ —	$ 74	$ —
Liabilities:				
Forward foreign exchange contracts—liabilities	$ 637	$ —	$ 637	$ —
Contingent consideration	$ 22,473	$ —	$ —	$ 22,473

The Company's money market mutual funds are valued using readily available market prices.

The Company's counterparties to its forward foreign exchange contracts are financial institutions. These forward foreign exchange contracts are measured at fair value using a valuation which represents a good faith estimate of the midmarket value of the position, based on estimated bids and offers for the positions, which are updated each reporting period. The Company considers the effect of credit standings in these fair value measurements. There have been no changes in the valuation techniques used to measure the fair value of the Company's forward foreign exchange contracts (see Note 7 below for additional information about the Company's derivatives and hedging activities).

The Company has classified contingent consideration related to its acquisitions within Level 3 of the fair value hierarchy because the fair value is derived using significant unobservable inputs, which include discount rates and probability-weighted cash flows. The Company determined the fair value of its contingent consideration obligations based on a probability-weighted income approach derived from financial performance estimates and probability assessments of the attainment of certain targets. The Company establishes discount rates to be utilized in its valuation models based on the cost to borrow that would be required by a market participant for similar instruments. In determining the probability of attaining certain technical and operation targets, the Company utilizes data regarding similar milestone events from its own experience, while considering the inherent difficulties and uncertainties in developing a product. On a quarterly basis, the Company reassesses the probability factors associated with the financial, operational and technical targets for its contingent consideration obligations. Significant judgment is employed in determining the appropriateness of these assumptions as of the acquisition date and for each subsequent period.

The key assumptions as of September 29, 2012 related to the contingent consideration from the acquisition of Confluence Solar used in the model include: (i) discount rates of 7.04% for the purpose of discounting the expected cash flows; and (ii) probability factors related to the attainment of the financial targets and certain technical targets. The probability used in the analysis for both remaining targets was 50%. An increase or decrease in the probability of achievement of any target could result in a significant increase or decrease to the estimated fair value of the contingent consideration liability.

During the three months ended June 30, 2012, the Company settled its final contingent consideration obligations related to the acquisition of Crystal Systems based on achievement of the final operational target as of March 31, 2012.

The Company recorded contingent consideration expense in the condensed consolidated statements of operations of $(9,943) and $(9,788) for the three and six months ended September 29, 2012 and $2,787 and $3,467 for the three and six months ended October 1, 2011, respectively, all of which was allocated to the corporate services reporting segment. During the three months ended September 29, 2012, based on the failure to satisfy certain operational and technical targets by the contractual target dates, the Company determined that that the earn-out opportunities related to these targets were not achieved and the Company recognized a total decrease in the fair value of contingent consideration of $(8,177) in the condensed consolidated statements of operations. In addition, the Company recorded contingent consideration expense of $(1,611) in connection with a change in probabilities of the remaining earn-out targets in connection with the acquisition of Confluence Solar. The undiscounted outcome that the Company initially used to value the contingent consideration arrangement was $15,000 for the acquisition of Confluence Solar. Changes in the fair value of the Company's Level 3 contingent consideration obligations during the three and six month periods ending September 29, 2012 and October 1, 2011, respectively, were as follows:

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Fair value as of the beginning of the period	$ 14,762	$ 11,908	$ 22,473	$ 11,228
Acquisition date fair value of contingent consideration obligations related to acquisitions	—	13,858	—	13,858
Changes in the fair value of contingent consideration obligations	(9,943)	2,787	(9,788)	3,467
Payments of contingent consideration obligations	—	(5,304)	(7,866)	(5,304)
Fair value at the end of the period	$ 4,819	$ 23,249	$ 4,819	$ 23,249

The carrying amounts reflected in the Company's condensed consolidated balance sheets for cash, accounts receivable, prepaid expenses and other current assets, accounts payable, accrued expenses and customer deposits approximate fair value due to their short-term maturities.

5. Goodwill and Other Intangible Assets

The following table contains the change in the Company's goodwill during the six months ended September 29, 2012:

	Photovoltaic Business	Sapphire Business	Total
Balance as of March 31, 2012	$ 59,946	$ 42,206	$ 102,152
Adjustments to prior acquisitions	—	—	—
Balance as of September 29, 2012	$ 59,946	$ 42,206	$ 102,152

No impairment losses have been recorded on the Company's goodwill. Acquired intangible assets subject to amortization at September 29, 2012 and March 31, 2012 consisted of the following:

GT Advanced Technologies Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
(In thousands, except per share data)

	Weighted Average Amortization Period	September 29, 2012 Gross Amount	September 29, 2012 Accumulated Amortization	September 29, 2012 Net	March 31, 2012 Gross Amount	March 31, 2012 Accumulated Amortization	March 31, 2012 Net
Photovoltaic & Polysilicon:							
Customer relationships	5.4 years	$ 5,150	$ 4,549	$ 601	$ 5,150	$ 4,391	$ 759
Technology	9.4 years	74,200	15,296	58,904	74,200	11,986	62,214
Trade names / Trademarks	8.6 years	7,100	2,918	4,182	7,100	2,683	4,417
Supplier relationships	5.0 years	1,100	1,100	—	1,100	1,100	—
Subtotal:		87,550	23,863	63,687	87,550	20,160	67,390
Sapphire:							
Customer relationships	6.0 years	4,100	1,481	2,619	4,100	1,139	2,961
Technology	10.0 years	17,300	3,748	13,552	17,300	2,883	14,417
Order backlog	1.2 years	500	500	—	500	483	17
Trade names	8.0 years	1,100	298	802	1,100	229	871
Non-compete agreements	5.8 years	1,000	388	612	1,000	299	701
Subtotal:		24,000	6,415	17,585	24,000	5,033	18,967
		$ 111,550	$ 30,278	$ 81,272	$ 111,550	$ 25,193	$ 86,357

The weighted average remaining amortization periods for the (i) photovoltaic, polysilicon and (ii) sapphire intangibles were 7.23 years and 6.72 years, respectively, as of September 29, 2012. As of September 29, 2012, the estimated future amortization expense for the Company's intangible assets is as follows:

Fiscal Year Ending	Amortization Expense
2013 (remaining six months)	$ 5,068
2014	10,137
2015	9,913
2016	9,770
2017	9,237
2018	8,970
Thereafter	28,177

6. Customer Concentrations

The following customers comprised 10% or more of the Company's total accounts receivable or revenues as of or for the periods indicated:

GT Advanced Technologies Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
(In thousands, except per share data)

	Three Months Ended				Six Months Ended				As of			
	September 29, 2012		October 1, 2011		September 29, 2012		October 1, 2011		September 29, 2012		March 31, 2012	
	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total	Accounts Receivable	% of Total	Accounts Receivable	% of Total
Photovoltaic Customers												
Customer #1	*	*	59,857	27%	*	*	67,869	15%	*	*	*	*
Polysilicon Customers												
Customer #2	43,459	39%	49,379	23%	86,343	31%	70,296	16%	*	*	6,704	10%
Customer #3	39,142	36%	*	*	39,142	14%	*	*	1,200	10%	*	*
Customer #4	*	*	*	*	77,870	28%	*	*	*	*	*	*
Customer #5	*	*	27,055	12%	*	*	*	*	*	*	*	*
Customer #6	*	*	*	*	*	*	*	*	1,413	12%	*	*
Sapphire Customers												
Customer #7	*	*	*	*	*	*	*	*	2,486	22%	*	*
Customer #8	*	*	*	*	*	*	*	*	1,562	14%	*	*
Customer #9	*	*	*	*	*	*	*	*	*	*	20,084	31%
Customer #10	*	*	*	*	*	*	*	*	*	*	12,852	20%

* Amounts from these customers were less than 10% of the total as of or for the respective period.

The Company requires most of its customers to either post letters of credit or make advance payments of a portion of the selling price prior to delivery. Approximately $2,264 (or 20%) and $50,833 (or 77%) of total accounts receivable as of September 29, 2012 and March 31, 2012, respectively, were secured by letters of credit.

7. Derivative and Hedging Activities

The Company enters into forward foreign currency exchange contracts to hedge portions of foreign currency denominated inventory purchases. These contracts typically expire within 12 months of entering into the contract. As of September 29, 2012, the Company had forward foreign currency exchange contracts with notional amounts of 25,612 Euros. Included in this amount are foreign currency exchange contracts with notional amounts of 20,081 Euros which are no longer designated as cash flow hedges.

The following table sets forth the balance sheet location and fair value of the Company's forward foreign currency exchange contracts at September 29, 2012 and March 31, 2012:

GT Advanced Technologies Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
(In thousands, except per share data)

	Balance Sheet Location	September 29, 2012	March 31, 2012
Instruments Designated as Cash Flow Hedges			
Forward foreign currency exchange contracts—assets	Other current assets	$ 48	$ 74
Forward foreign currency exchange contracts—liabilities	Accrued expenses	$ —	$ 637

	Balance Sheet Location	September 29, 2012	March 31, 2012
Derivatives Not Designated as Hedging Instruments			
Forward foreign currency exchange contracts—assets	Other current assets	$ —	$ —
Forward foreign currency exchange contracts—liabilities	Accrued expenses	$ 183	$ —

The following table sets forth the effect of the Company's forward foreign currency exchange contracts designated as hedging instruments on the consolidated statements of operations for the three and six months ended September 29, 2012 and March 31, 2012:

Instruments Designated as Cash Flow Hedges

	Amount of (Gain) or Loss Recognized in OCI on Derivative (Effective Portion)	Location of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)	Amount of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)	Location of Gain or (Loss) Recognized in Income on Derivative (Ineffective Portion)	Amount of Gain or (Loss) Recognized in Income on Derivative (Ineffective Portion)
Three Months Ended					
September 29, 2012	$ 173	Cost of revenue	$ (498)	Other, net	$ —
October 1, 2011	$ 2,348	Cost of revenue	$ (1,466)	Other, net	$ (25)
Six Months Ended					
September 29, 2012	$ 2,026	Cost of revenue	$ (1,845)	Other, net	$ —
October 1, 2011	$ 1,840	Cost of revenue/ Research and Development	$ (2,089)	Other, net	$ (25)

Derivatives Not Designated as Hedging Instruments

	Location of Gain or (Loss) Recognized in Income on Derivative	Amount of Gain or (Loss) Recognized in Income on Derivative
Three Months Ended		
September 29, 2012	Other, net	$ (287)
October 1, 2011	Other, net	$ —
Six Months Ended		
September 29, 2012	Other, net	$ (886)
October 1, 2011	Other, net	$ —

During the three and six months ended September 29, 2012, losses of $287 and $886, respectively, were reclassified into earnings as a result of the Company discontinuing cash flow hedging. Approximately $315 of accumulated loss included in other comprehensive income as of September 29, 2012 is expected to be reclassified into earnings over the next twelve months.

8. Inventories

Inventories consisted of the following:

	September 29, 2012	March 31, 2012
Raw materials	$ 191,942	$ 165,725
Work-in-process	2,217	7,837
Finished goods	22,123	19,733
	$ 216,282	$ 193,295

9. Warranty

The following table presents warranty activities:

	Six Months Ended	
	September 29, 2012	October 1, 2011
Product warranty liability, beginning of the period	$ 6,225	$ 6,943
Accruals for warranties issued	6,390	1,038
Payments under warranty	(3,400)	(3,642)
Product warranty liability, end of period	$ 9,215	$ 4,339

10. Income Taxes

The Company accounts for income taxes at each interim period using its estimated annual effective tax rate which takes into account operations in the U.S. and in other tax jurisdictions. Any discrete tax adjustments are recorded in the specific quarter they arise.

The Company's effective tax rate was 24.2% and 29.4% for the three months ended September 29, 2012 and October 1, 2011, respectively, 34.8% and 30.2% for the six months ended September 29, 2012 and October 1, 2011, respectively. The effective tax rate is lower in the three months ended September 29, 2012, principally due to the reversal of previously reported nondeductible expenses related to a contingent liability. The effective tax rate is higher in the six months ended September 29, 2012, principally due to proportionally lower expected levels of income in lower tax jurisdictions. As a result, more income is taxed in jurisdictions with higher tax rates. The Company reviews its expected annual effective income tax rates and makes changes on a quarterly basis as necessary based on certain factors such as changes in forecasted annual operating income by jurisdiction; changes to actual or forecasted permanent book to tax differences; impacts from future tax settlements with state, federal or foreign tax authorities; and impacts from tax law changes. Due to the volatility of these factors, the Company's consolidated effective income tax rate can change significantly on a quarterly basis.

A reconciliation of the change in unrecognized tax benefits for the six months ended September 29, 2012 is as follows:

Unrecognized tax benefits at March 31, 2012	$	25,295
Increases related to current year tax positions		141
Increases related to prior year tax positions		846
Unrecognized tax benefits at September 29, 2012	$	26,282

The Company also recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense. To date, the Company has recorded accruals for interest and penalties of $586 for the current fiscal year ending March 30, 2013. Approximately $25,436 of the unrecognized tax benefits would affect the effective tax rate, if realized.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. The Company is subject to examination by federal, state, and foreign tax authorities. The Company's U.S. tax returns are currently in appeals for fiscal years ending March 31, 2007 and 2008 and the Company plans to vigorously defend all tax positions taken. The Company is also under examination by the Internal Revenue Service, or IRS for its fiscal years ending March 28, 2009 and April 3, 2010. In addition, the statute of limitations is open for all state and foreign jurisdictions. As of September 29, 2012, the Company has classified approximately $1,936 of unrecognized tax benefits as current. These unrecognized tax benefits relate to positions under appeals for the fiscal 2007 and fiscal 2008 tax years and positions under examination for the fiscal 2009 and fiscal 2010 tax years. During the six months ended September 29, 2012 and October 1, 2011, the Company paid $49,773 and $29,238 for estimated taxes, respectively.

11. Commitments and Contingencies

Purchase Commitments

The Company's commitments to purchase raw materials, research and development and other services from various suppliers and vendors are estimated to be $355,851 and $418,198 as of September 29, 2012 and March 31, 2012, respectively. Substantially all of these commitments as of September 29, 2012 are due within the next twelve months.

Litigation Contingencies

Beginning on August 1, 2008, seven putative securities class action lawsuits were commenced in the United States District Court for the District of New Hampshire, or the Court, against the Company, certain of its officers and directors, certain underwriters of its July 24, 2008 initial public offering and others, including certain of its investors, together called the "federal class actions." In addition, on September 18, 2008 a putative securities class action was filed in New Hampshire state court in the Superior Court for Hillsborough County, Southern District, or the State Court, under the caption *Hamel v. GT Solar International, Inc., et al.*, against the Company, certain of its officers and directors and certain underwriters of its July 24, 2008 initial public offering, called the "state class action." Both the federal class actions and the state class action asserted claims under various sections of the Securities Act of 1933, as amended. The plaintiffs in these actions alleged, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement and prospectus for the Company's July 24, 2008 initial public offering, and other public statements, regarding its business relationship with LDK Solar, Ltd., one of its customers, JYT Corporation, one of its competitors, and certain of its products, including the DSS furnaces.

On March 7, 2011, the Company announced that it had reached an agreement in principle to settle both the federal class actions and the state class action. The parties subsequently memorialized their agreement in a stipulation of settlement (the "Settlement Agreement") that was filed with the Court. The Settlement Agreement provided, among other things, that:

(i) the Company and all other defendants made no admission of liability or wrongdoing, (ii) the Company and all other defendants would receive a full and complete release of all claims that were or could have been brought against all defendants in both the federal and state securities actions, (iii) the Company would pay $10,500 into a settlement fund. Of this amount, the Company contributed $1,000 and the Company's liability insurers contributed the remaining $9,500. The Company's contribution represented its contractual indemnification obligation to its underwriters.

On September 27, 2011, after a hearing to consider the fairness and adequacy of the settlement, the court entered a final judgment (the "Order") approving the settlement and dismissing the federal class actions. Pursuant to the Settlement Agreement, the state class action was also dismissed as a result of the entry of the Order.

A derivative suit, captioned *Fan v. GT Solar Int'l, Inc., et al.*, was filed in New Hampshire State Court on January 14, 2009, called the "derivative action." The derivative complaint was asserted nominally on the Company's behalf against certain of its directors and officers and alleges various claims for breach of fiduciary duty, unjust enrichment, abuse of control and gross mismanagement. The derivative action was premised on the same purported misconduct alleged in the federal class actions. The derivative action, which was not included in the settlement of the federal and state class actions, was voluntarily dismissed by the plaintiffs on August 22, 2012.

The Company is subject to various other routine legal proceedings and claims incidental to its business, which management believes will not have a material effect on the Company's financial position, results of operations or cash flows.

Customer Indemnifications

In certain cases, the Company indemnifies, under pre-determined conditions and limitations, its customers for infringement of third-party intellectual property rights by the Company's products or services (and, in limited instances, the Company also indemnifies other third parties for certain potential damages). The Company generally seeks to limit its liability for such indemnity to an amount not to exceed the sales price of the products or services (or the price paid for products or services) subject to its indemnification obligations, but not all agreements contain such limitations on liability. The Company does not believe, based on information available, that it is probable that any material amounts will be paid under these indemnification provisions.

12. Long-Term Debt and Revolving Credit Facility

Bank of America Credit Agreement

On January 31, 2012, the Company, its U.S. operating subsidiary (the "U.S. Borrower") and its Hong Kong subsidiary (the "Hong Kong Borrower") entered into a credit agreement (the "2012 Credit Agreement"), with Bank of America, N.A., as administrative agent, Swing Line Lender and L/C Issuer (or "Bank of America") and the lenders from time to time party thereto. The 2012 Credit Agreement consists of a term loan facility (the "2012 Term Facility") provided to the U.S. Borrower in an aggregate principal amount of $75,000 with a final maturity date of January 31, 2016, a revolving credit facility (the "U.S. Revolving Credit Facility") available to the U.S. Borrower in an aggregate principal amount of $25,000 with a final maturity date of January 31, 2016 and a revolving credit facility (the "Hong Kong Revolving Credit Facility" together with the U.S. Revolving Credit Facility, the "2012 Revolving Credit Facility" and together with the 2012 Term Facility, the "2012 Credit Facilities") available to the Hong Kong Borrower in an aggregate principal amount of $150,000 with a final maturity date of January 31, 2016. The 2012 Credit Facilities are available in the form of base rate loans based on Bank of America's prime rate plus a margin of 2.00% or Eurodollar rate loans based on LIBOR plus a margin of 3.00%. The 2012 Term Facility amortizes in equal quarterly amounts which in the aggregate equal 5% of the original principal amount of the 2012 Term Facility in each of years 1 and 2 of the loan and 10% of the original principal amount of the 2012 Term Facility in each of years 3 and year 4 of the loan, with the balance payable on January 31, 2016. The 2012 Credit Facilities are subject to mandatory prepayment in the event that the Company has excess cash flow or receives cash proceeds from any asset sale, casualty event or issuance of indebtedness not otherwise permitted under the Credit Agreement during any fiscal year, subject to certain thresholds and other exceptions. The 2012 Credit Facilities also requires the Company to comply with certain covenants, including financial ratio covenants (as described further below). Proceeds of the 2012 Term Facility and 2012 Revolving Credit Facility are available for use by the Company and certain of its subsidiaries for general corporate purposes. The full amount of the 2012 Term Facility was drawn by the U.S. Borrower on

January 31, 2012 and no amounts have been drawn on the 2012 Revolving Credit Facility as of such date. The Company will use the 2012 Revolving Credit Facility in connection with the issuance of letters of credit up to the aggregate principal amount of the 2012 Revolving Credit Facility or for other purposes as permitted under the 2012 Revolving Credit Facility.

The borrowings under the 2012 Term Facility and the U.S. Revolving Credit Facility are secured by a lien on substantially all of the tangible and intangible property of the Company and its wholly-owned domestic subsidiaries (including the U.S. Borrower), including but not limited to accounts receivable, inventory, equipment, general intangibles, certain investment property, certain deposit and securities accounts, certain owned real property and intellectual property, and a pledge of the capital stock of each of the Company's wholly-owned domestic subsidiaries (limited in the case of pledges of capital stock of any foreign subsidiaries, to 65% of the capital stock of any first-tier foreign subsidiary), subject to certain exceptions and thresholds, and the repayment of such proceeds is guaranteed by the Company and its wholly-owned domestic subsidiaries. The proceeds of the Hong Kong Revolving Facility are secured by a lien on substantially all of the tangible and intangible property of the Hong Kong Borrower, including but not limited to accounts receivable, inventory, equipment, general intangibles, certain investment property, certain deposit and securities accounts, certain owned real property and intellectual property, and a pledge of the capital stock of the Hong Kong Borrower, subject to certain exceptions and thresholds, and the repayment of such proceeds is guaranteed by the Company and its wholly-owned domestic subsidiaries.

On various dates between June 15, 2012 and June 25, 2012, the Company, the U.S. Borrower and the Hong Kong Borrower requested and received approval for increases in the term loan for the U.S. Borrower in an aggregate amount equal to $70,000 (the "Incremental Term Loans") pursuant to the 2012 Credit Agreement.

As a result of the Incremental Term Loans, the aggregate term loan under the 2012 Credit Agreement was increased from $75,000 to $145,000, all of which was borrowed by the U.S. Borrower.

All of the material terms and conditions related to the Incremental Term Loans were identical to the terms and conditions that apply to the 2012 Term Facility, including the final maturity date of January 30, 2016 and the interest rate, which in each case is equal to, at the option of the U.S. Borrower, Bank of America's prime rate plus a margin of 2.00% or LIBOR plus a margin of 3.00%. The Incremental Term Loans amortize over the same period, and in proportional amounts, as the 2012 Term Facility, commencing with the first amortization payment under both term facilities in June 2012.

On September 24, 2012, the lenders authorized the Company to issue the Notes and to enter into the convertible note hedge and warrant transactions pursuant to an amendment (the "Amendment") to the 2012 Credit Agreement.

In addition, the Amendment imposes a minimum liquidity test that must be met in order to make a cash payment to the holders of Notes in connection with any conversion event in respect of the Notes. In order to make such a payment, the Company must have a combined minimum of $150,000 in unrestricted cash and cash equivalents and availability under the 2012 Revolving Credit Facility.

The Amendment also provides that, on a going-forward basis, the maximum consolidated leverage ratio covenant under the 2012 Credit Agreement will be calculated on a net leverage basis, taking into account up to $100 million of cash and cash equivalents held by the Company and its subsidiaries in the United States. This net leverage feature will also impact the leverage tests under the 2012 Credit Agreement for certain permitted acquisitions and other permitted investments. In addition, the maximum consolidated leverage ratio covenant and the other leverage tests will exclude obligations under performance letters of credit.

Over the next four fiscal years, the Company will be required to repay the following principal amounts under the 2012 Term Facility and Incremental Term Loans:

Fiscal Year Ending		Principal Payments
2013 (remaining six months)	$	5,438
2014		7,250
2015		14,500
2016		116,000
Total	$	143,188

The Company may, at its option, prepay borrowings under the 2012 Credit Agreement (in whole or in part), at any time without penalty subject to conditions set forth in the 2012 Credit Facilities. The Company is required to make mandatory prepayments:

- of the lesser of (i) 25,000 or (ii) 50% of excess cash flow (as defined in the 2012 Credit Agreement) in any fiscal period or fiscal year subsequent to March 31, 2012 (as reduced by voluntary repayments of the Term Facility), subject to certain exceptions;

- 100% of the net cash proceeds (as defined in the 2012 Credit Agreement) of all asset sales or other dispositions of property by the Company and its subsidiaries in excess of $5,000, subject to certain exceptions;

- 100% of the net cash proceeds (as defined in the 2012 Credit Agreement) of extraordinary receipts by the Company and its subsidiaries in excess of $5,000, subject to certain exceptions; and

- 100% of the net cash proceeds (as defined in the 2012 Credit Agreement) from non-permitted indebtedness by the Company, subject to certain exceptions.

The 2012 Credit Agreement imposes certain financial covenants on the Company and its subsidiaries, including, (i) minimum ratio of consolidated adjusted EBITDA (as defined in the 2012 Credit Agreement) to consolidated interest charges (as defined in the 2012 Credit Agreement) of 3.50 to 1.00 at the end of any period of four consecutive fiscal quarters and (iii) maximum leverage ratio (as defined in the Credit Agreement) of 2.0 to 1.0 at the end of any period of four consecutive fiscal quarters (as such financial covenant was modified by the Amendment).

The 2012 Credit Agreement requires that the Company and its subsidiaries comply with covenants relating to customary matters (in addition to the financial covenants described above), including with respect to incurring indebtedness and liens, using the proceeds received under the 2012 Credit Agreement, transactions with affiliates, making investments and acquisitions, effecting mergers and asset sales, prepaying indebtedness, and restrictions on the Company's ability to pay dividends to shareholders.

The 2012 Credit Agreement includes events of default relating to customary matters, including, among other things, nonpayment of principal, interest or other amounts; violation of covenants; inaccuracies in the representations and warranties in any material respect; cross default and cross acceleration with respect to indebtedness in an aggregate principal amount of $10,000 or more; bankruptcy or similar proceedings or events; judgments involving liability of $10,000 or more that are not paid; ERISA events; actual or asserted invalidity of guarantees or security documents; and change of control. Events of default can trigger, among other things, acceleration of payment of all outstanding principal and interest under the 2012 Credit Agreement.

Interest expense related to 2012 Term Facility and 2012 Revolving Credit Facility was $1,470 and $2,456, respectively, for the three and six months ended September 29, 2012, which includes amortization of debt fees related to the 2012 Credit Facilities, as well as the associated commitment fees. The carrying value of the amounts drawn under the 2012 Term Facility (and the Incremental Term Loans) and the associated accrued interest total $143,509 as of September 29, 2012. The outstanding principal and accrued interest on the 2012 Term Facility (and the Incremental Term Loans) approximate its fair value. Interest capitalized on construction-in-process contracts for the six months ended September 29, 2012 was not material. The balance of deferred financing costs at September 29, 2012 was $4,125 and is included in other assets on the consolidated balance sheet.

Through September 29, 2012, the Company used amounts available under the 2012 Revolving Facilities in connection with standby letters of credit related to customer deposits. As of September 29, 2012, the Company had $66,464 of outstanding letters of credit pursuant to the 2012 Revolving Facilities resulting in $108,536 of available credit under the 2012 Revolving Facilities. The Credit Agreement allows the Company to cash collateralize letters of credit up to an amount of $35,000 to the extent that outstanding standby letters of credit exceed the amount of our collective 2012 Revolving Credit Facility in the U.S. and Hong Kong.

3.00% Convertible Senior Notes due 2017

On September 28, 2012, the Company issued $220,000 aggregate principal amount of 3.00% Convertible Senior Notes due 2017 (the "Notes"). The net proceeds from the issuance of the Notes were approximately $212,710, after deducting fees paid to the initial purchasers and other offering costs. The Notes are senior unsecured obligations of the Company, which pay interest in cash semi-annually (on April 1 and October 1 of each year) at a rate of 3.00% per annum beginning on April 1, 2013. The Notes are governed by an Indenture dated September 28, 2012 with U.S. Bank National Association, as trustee (the "Indenture"). The Notes are not redeemable by the Company.

The Notes will mature on October 1, 2017, unless earlier repurchased or converted in accordance with their terms prior to such date. The Notes may be converted, under the conditions specified below, based on an initial conversion rate of 129.7185 shares of common stock per $1,000 principal amount of Notes (which represents an initial effective conversion price of the Notes of $7.71 per share), subject to adjustment as described in the Indenture.

The Notes may be converted by the holder, in multiples of $1,000 principal amount, only under the following circumstances:

- prior to April 1, 2017, during any calendar quarter commencing after the calendar quarter ending on December 31, 2012 (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

- prior to April 1, 2017, during the five business day period after any five consecutive trading day period in which the trading price (as defined in the Indenture) per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day;

- prior to April 1, 2017, upon specified corporate events;

- on or after April 1, 2017 until the close of business on the second scheduled trading day immediately preceding the maturity date, regardless of the foregoing circumstances.

Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at its election. If the Company satisfies its conversion obligation solely in cash or through payment and delivery, as the case may be, of a combination of cash and shares of its common stock, the amount of cash and shares of common stock, if any, due upon conversion will be based on a daily conversion value (as described in the Indenture, calculated on a proportionate basis for each trading day in a 40 consecutive trading-day conversion period (as described in the Indenture).

In addition, following certain corporate events that occur prior to the maturity date (as described in the Indenture), the Company will increase the conversion rate for a holder of the Notes who elects to convert its Notes in connection with such a corporate event in certain circumstances.

At September 29, 2012, the aggregate conversion value of the Notes did not exceed their par value using a conversion price of $5.45, the closing price of the Company's common stock on September 28, 2012.

In accordance with accounting guidance for debt with conversion and other options, the Company accounted for the liability and equity components of the Notes separately. The estimated fair value of the liability component at the date of issuance was $154,884 and was computed based on the fair value of similar debt instruments that do not include a conversion feature. The equity component of $65,116 was recognized as a debt discount and represents the difference between the $220,000 of gross proceeds from the issuance of the Notes and the $154,884 estimated fair value of the liability component at the date of issuance. The debt discount is being amortized over a five-year period ending October 1, 2017, which represents the expected life of a similar debt instrument without the equity component.

The effective interest rate used to amortize the debt discount is approximately 10.7%, which was based on the Company's estimated non-convertible borrowing rate as of the date the Notes were issued.

Issuance costs of $7,290 related to the issuance of the Notes were allocated to the liability and equity components in proportion to the allocation of the proceeds and accounted for as capitalized debt issuance costs and equity issuance costs, respectively.

Interest expense incurred in connection with the Notes consisted of the following:

	Three and Six Months Ended September 29, 2012	
Contractual coupon rate of interest	$	36
Discount amortization		62
Interest expense - Convertible Notes	$	98

The carrying value of the Notes consisted of the following:

	September 29, 2012	
Principal balance	$	220,000
Discount, net of accumulated amortization of $62		(65,054)
Carrying amount	$	154,946

Fair Value of Notes

As of September 29, 2012, the fair value of the principal amount of the Notes, which includes the debt and equity components, was approximately $221,869, or 100.8% of the face value of the Notes, based upon quoted market information provided by third party pricing providers (Level 1).

Convertible Note Hedge Transactions and Warrant Transactions

In connection with the offering of the Notes, the Company entered into separate convertible note hedging transactions and warrant transactions with multiple counterparties.

Pursuant to the convertible note hedges, the Company purchased call options on its common stock, under which the Company has the right to acquire from the counterparties up to 28,500 shares of its common stock, or an equivalent amount in cash or a combination of cash and shares, subject to customary anti-dilution adjustments, at a strike price of $7.71, that is equal to the initial conversion price of the Notes. The Company's exercise rights under the call options trigger upon conversion of the Notes and the call options terminate upon the maturity of the Notes, or the first day the Notes are no longer outstanding. The convertible note hedges may be settled in cash, shares of the Company's common stock, or a combination thereof, at the Company's option, and are intended to reduce the Company's exposure to potential cash payments or potential dilution upon conversion of the Notes. The Company paid $57,923 for the convertible note hedges, which was recorded as a reduction to additional paid-in capital.

The Company also sold warrants to multiple counterparties that provide the counterparties rights to acquire from us up to approximately 28,500 shares of our common stock. The strike price of the warrants will initially be $9.9328 per share, which is 67.5% above the last reported sale price of the Company's common stock on September 24, 2012. The warrants expire incrementally on a series of expiration dates following the maturity dates of the Notes. At expiration, if the market price per share of the Company's common stock exceeds the strike price of the warrants, the Company will be obligated to issue shares of the Company's common stock having a value equal to such excess. The warrants could have a dilutive effect on earnings per share to the extent that the market value per share of the Company's common stock exceeds the strike price of the warrants. Proceeds received from the warrant transactions totaled $41,623 and were recorded as additional paid-in capital.

The convertible note hedge and warrants meet the indexation and classification requirements to be accounted for within equity. As such, the net cost of the convertible note hedge and warrant transactions have been recognized within additional paid-in capital on the Company's condensed consolidated balance sheets and their fair values will not be subsequently re-measured and adjusted as long as these instruments continue to qualify for equity classification.

13. Share-Based Compensation

The Company recorded $4,818, $3,776, $8,921 and $6,896 of expense related to share-based compensation during the three months ended September 29, 2012 and October 1, 2011 and the six months ended September 29, 2012 and October 1, 2011, respectively. Share-based compensation cost capitalized as part of inventory was not material for all periods presented.

During the six months ended September 29, 2012, no option awards were granted to executives or employees of the Company.

During the six months ended September 29, 2012, the Company granted restricted stock units to certain executives, employees and directors of the Company for 3,002 shares of the Company's common stock. Restricted stock units provide for the holder to receive shares of the Company's common stock at the time such units vest or restrictions on such units lapse in accordance with the terms of the restricted stock unit agreement. The total fair value of the restricted stock units, which was based on the fair value of the Company's common stock on the date of grant, was $14,761 or $4.92 on a weighted average per share basis.

During the six months ended September 29, 2012, the Company granted to certain executives 808 performance-based restricted stock units. The total fair value of these restricted stock units, which was based on the fair value of the Company's common stock on the date of grant, was $3,634, or $4.50 on a weighted average per share basis.

As of September 29, 2012, the Company had unamortized share-based compensation expense related to stock options, restricted stock unit awards and performance-based restricted stock unit awards of approximately $36,866 after estimated forfeitures. The remaining unamortized share-based compensation expense related to stock options, restricted stock unit awards and performance-based restricted stock unit awards will be recognized over an estimated weighted average remaining requisite service period of 2.39 years.

14. Stockholders' Equity

The following table presents the changes in stockholders' equity for the six months ended September 29, 2012:

GT Advanced Technologies Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
(In thousands, except per share data)

	Common Stock					
	Shares	Par Value	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance as of March 31, 2012	118,331	$ 1,183	$131,563	$198,995	$ (187)	$ 331,554
Net income	—	—	—	17,101	—	17,101
Other comprehensive income (loss)						
Cash flow hedge of foreign exchange, net					368	368
Foreign currency translation adjustment					(5)	(5)
Option exercises and vesting of restricted stock units	793	8	362			370
Share-based compensation expense			8,881			8,881
Tax benefit deficiency from share-based award activity			(1,208)			(1,208)
Minimum tax withholding payments for employee share-based awards	(186)	(2)	(870)			(872)
Equity component of convertible debt, net of tax of $2,337 and issuance costs of $2,134			60,645			60,645
Purchase of bond hedges			(57,923)			(57,923)
Proceeds from warrant transaction			41,623			41,623
Balance as of September 29, 2012	118,938	$ 1,189	$183,073	$216,096	$ 176	$ 400,534

15. Earnings Per Share

The following table sets forth the computation of the weighted average shares used in computing basic and diluted earnings per share:

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Weighted average common shares—basic	118,769	126,734	118,607	126,330
Dilutive common stock options and restricted stock unit awards (1) (2)	1,105	2,341	1,095	2,540
Weighted average common and common equivalent shares—diluted	119,874	129,075	119,702	128,870

(1) Holders of the Notes may convert the Notes into shares of the Company's common stock, at the applicable conversion rate, subject to certain conditions (Refer to Note 12 for a full description on the Notes). Since it is the Company's stated intent to settle the principal amount of the Notes in cash, the Company has used the treasury stock method for determining the potential dilution in the diluted earnings per share computation. Since the average price of the Company's common stock was less than the effective conversion price for such Notes during the reporting periods, the Notes were not dilutive for such periods.

(2) Upon exercise of the Warrants, holders of the Warrants may acquire up to 28,500 shares of the Company's common stock at an exercise price of $9.9328. If the market price per share of the Company's common stock for the period exceeds the established strike price, the Warrants will have a dilutive effect on its diluted net income per share using the treasury-stock-type method. Since the average price of the Company's common stock was less than the strike price of the Warrants for the reporting periods, such Warrants were also not dilutive.

Potential common stock equivalents excluded from the calculation of dilutive earnings per share because the effect would have been anti-dilutive are as follows:

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Weighted average restricted stock units and common stock options having no dilutive effect	3,740	739	4,298	532

16. Segment Information

The Company reports its results in three segments: the PV business, the polysilicon business and the sapphire business. The Company presents segment information in a manner consistent with the method used to report this information to management.

The PV business manufactures and sells directional solidification ("DSS") crystallization furnaces and ancillary equipment used to cast crystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic wafers which are, in turn, used to make solar cells. On August 24, 2011, the Company acquired 100% of the outstanding shares of common stock of privately-held Confluence Solar. Confluence Solar is the developer of HiCz, a continuously-fed Czochralski growth technology, that is designed to enable the production of high efficiency monocrystalline solar ingots. The Company has not yet commercialized the HiCz monocrystalline equipment, it does, however, expect to continue to sell HiCz monocrystalline material, manufactured at its pilot production plant in Hazelwood, Missouri, into select markets. The results of the acquired business are included in the Company's PV business reporting segment.

The polysilicon business manufactures and sells Silicon Deposition Reactors (SDR) and related equipment used to produce polysilicon, the key raw material used in silicon-based solar wafers and cells, while also providing engineering services and related equipment. In addition, the polysilicon business sells hydrochlorination technology and equipment which is utilized to convert silicon tetrachloride into trichlorosilane (TCS), which is used as seed material in the manufacture of high purity silicon. Hydrochorination technology is designed to improve the efficiency and lowers the costs of polysilicon production.

The sapphire business manufactures and sells advanced sapphire crystal growth systems, as well as sapphire materials used in LED applications, and sapphire components used in other specialty markets.

The Company evaluates performance and allocates resources based on revenues and operating income (loss) of each segment. Operating income (loss) for each segment includes selling, general and administrative expenses directly attributable to the segment including the amortization of acquired intangible assets. Corporate services include non-allocable overhead costs, including human resources, legal, finance, information technology, general and administrative, certain corporate integration expenses and corporate marketing expenses.

Financial information for the Company's reportable segments is as follows:

	Photovoltaic Business	Polysilicon Business	Sapphire Business	Corporate Services	Total
Three months ended September 29, 2012					
Revenue	$ 1,556	$ 95,856	$ 12,649	$ —	$ 110,061
Gross profit	(3,312)	35,095	3,245	—	35,028
Depreciation and amortization	2,822	161	2,272	1,165	6,420
Income (loss) from operations	(18,804)	31,907	(2,234)	(5,754)	5,115
Three months ended October 1, 2011					
Revenue	$ 111,190	$ 98,009	$ 8,492	$ —	$ 217,691
Gross profit	51,269	42,296	1,520	—	95,085
Depreciation and amortization	1,349	166	2,148	462	4,125
Income (loss) from operations	40,194	36,988	(3,102)	(20,246)	53,834
Six months ended September 29, 2012					
Revenue	$ 10,982	$ 217,376	$ 48,955	$ —	$ 277,313
Gross profit	(2,164)	82,930	14,468	—	95,234
Depreciation and amortization	4,913	324	4,322	2,565	12,124
Income (loss) from operations	(29,938)	76,472	2,186	(19,000)	29,720
Six months ended October 1, 2011					
Revenue	309,818	121,894	17,075	—	448,787
Gross profit	153,773	52,057	2,644	—	208,474
Depreciation and amortization	1,761	332	3,700	1,037	6,830
Income (loss) from operations	132,997	41,593	(7,073)	(34,997)	132,520

The following table presents revenue by geographic region, which is based on the destination of the shipments:

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
China	$ 14,038	$ 45,303	$ 50,146	$ 216,486
Korea	83,001	51,935	126,598	74,823
Other Asia	9,191	89,481	93,122	121,342
Europe	397	27,552	911	28,336
United States	2,285	2,486	4,699	6,295
Other	1,149	934	1,837	1,505
Total	$ 110,061	$ 217,691	$ 277,313	$ 448,787

17. Subsequent Event

On October 31, 2012, the Company announced plans to streamline its worldwide operations to better align its cost structure with current market conditions and enhance its ability to pursue strategic growth initiatives. These steps included the consolidating its existing business units into a single Crystal Growth Systems (CGS) group and cost reduction actions which included reducing the Company's global workforce by approximately 25 percent.

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

Cautionary Statements Concerning Forward-Looking Statements

This Quarterly Report on Form 10-Q contains "forward-looking statements" that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. The statements contained in this Quarterly Report on Form 10-Q that are not purely historical are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are identified by the use of words such as, but not limited to, "anticipate," "believe," "continue," "could," "estimate," "prospects," "forecasts," "expect," "intend," "may," "will," "plan," "target," and similar expressions or variations intended to identify forward-looking statements and include statements about our expectations of future periods with respect to, among other things:

- *anticipated decrease, and subsequent elimination of, governmental incentives for renewable energy usage (and the reasons therefore), including solar energy and PV installations, and that the loss of these incentives may hamper the growth of the solar industry (and reduce demand for PV equipment);*

- *the HiCz equipment offering will be commercially available during calendar 2013;*

- *the HiCz equipment offering is expected to increase cell efficiencies and enable customers to produce high performance monocrystalline silicon ingots at lower costs;*

- *the HiCz equipment offering is expected to lower the cost of monocrystalline ingot technology and produce high efficiency monocrystalline solar ingots, both of which are expected to make it more competitive with wafers produced using the traditional batch Cz technology;*

- *our goal to lower the cost of producing high quality polysilicon for our customers by providing more efficient plant designs and increasing the throughput and efficiency of SDR reactors;*

- *expected synergies between the Company's experience in equipment development and the Confluence Solar acquired technology is expected to drive new product development;*

- *positioned to successfully compete for future market demand in polysilicon and expectations regarding the ability to deliver polysilicon equipment with greater efficiencies and performance;*

- *sapphire manufacturing trends;*

- *expectation that polysilicon margins in subsequent periods to increase if and when final payments are received on certain polysilicon contracts for which polysilicon equipment and services have been delivered;*

- *timing of delivery of our equipment products;*

- *expectation that our customers will substantially perform on their contracts;*

- *expectation that customers with contracts in backlog may attempt to modify their obligations (and Company may agree to such changes);*

- *technological advances are lowering manufacturing costs in the markets in which the Company operates;*

- *oversupply or decreased demand in the end-markets served by our equipment customers will have an adverse impact on our business (and may require we sell equipment at prices below our historical price) and that these conditions will continue into calendar 2013;*

- *the Company expects to make acquisitions of businesses or technologies (or make investments in businesses or technologies) that will result in the diversification of our business (but intends to continue principally as an equipment supplier) and the impact of such diversification;*

- *likelihood of customers going to other equipment suppliers is increasing;*

- *the market demand for multicrystalline PV products will not return to previous levels and will remain limited (and the reasons therefore);*

- *potential future uses and demand for multicrystalline PV based on technology advancements in solar wafers;*

- *dependence on a limited number of customers will continue for the foreseeable future;*

- *anticipated future decreased demand (and selling price) for DSS multicrystalline furnaces and the reasons therefore (including the transition to newer PV technologies);*

- *we expect to grow our business;*

- *Company's success in PV market will depend upon success in commercializing monocrystallization technology:*

- *acquisition of Confluence Solar is intended to expand PV product portfolio and expand business into more advanced crystal growth technology;*

- *we expect to increase product portfolio and increase revenue as a result of more product offerings;*

- *DSS MonoCast product and the HiCz equipment product are both expected to improve ingot performance compared to multicrystalline silicon materials (and HiCz will, over an extended period of time, supersede the DSS MonoCast product);*

- *expectation that interest expense will increase in future periods due to our 3.0% convertible senior notes due 2017;*

- *outsourcing of a portion of equipment manufacturing requires minimal capital expenditures;*

- *expectation to recognize revenue from sales to customers in Asia and Europe in the future;*

- *Company may continue to increase presence in China;*

- *purchasers of ASF systems will use the systems principally for LED and LED-related purposes (including lighting);*

- *potential new markets for sapphire material (and the opportunity these markets represent for sapphire equipment);*

- *certain parties are expected to enter into hedging arrangements in connection with their mandatorily exchangeable notes, the 3.0% senior convertible notes due 2017 (and certain other instruments) (and the impact on our stock price);*

- *Company does not anticipate paying dividends in the foreseeable future;*
- *Company will continue to sell sapphire and HiCz material into selected markets from its pilot facilities in Massachusetts and Missouri;*
- *price for sapphire material will remain low for the short-term;*
- *information identified under the heading "Factors Affecting the Results of Our Operations;"*
- *information identified under the heading "Risk Factors;"*
- *margins for DSS multicrystalline furnaces may decrease (and the reasons for such decrease);*
- *continued investment in new products, increased rate of R&D spending and expansion of certain existing product bases;*
- *total capital expenditures in the fiscal year ending March 30, 2013 (and the uses thereof) and that the amount may be greater due to growth strategy;*
- *future uses for amounts of available cash;*
- *we will have sufficient cash to satisfy working capital requirements for foreseeable future;*
- *expectation that demand for our products will continue to remain limited for the short-term amongst our customers in China;*
- *it is the Company's intent to settle the principal amount of its 3.0% convertible senior notes due 2017 in cash;*
- *expect a large percentage of future revenue will be derived from customers outside the U.S.;*
- *resolution of routine legal proceedings and claims will not have a material effect on the financial statements; and*
- *material amounts not expected to be paid by Company under indemnification provisions.*

These statements are based on the beliefs and assumptions of our management based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, factors discussed in Part II, Item 1A "Risk Factors" and included elsewhere in this Quarterly Report on Form 10-Q.

Forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q (or other date as specified in this Quarterly Report on Form 10-Q) or, as of the date given if provided in another filing with the SEC. We undertake no obligation, and disclaim any obligation, to publicly update or review any forward-looking statements to reflect events or circumstances after the date of such statements.

Company Overview

GT Advanced Technologies Inc., through its subsidiaries (referred to collectively as "we," "us" and "our") is a diversified technology company with innovative crystal growth equipment and solutions for the global solar, LED and electronics industries. Our products are designed to accelerate the adoption of new advanced materials that improve performance and lower the cost of manufacturing.

We operate through three business segments: our polysilicon business, our photovoltaic, or PV, business and our sapphire business.

Polysilicon Business

Our polysilicon business manufactures and sells silicon deposition reactors, or SDR, used to react gases at high temperatures to produce polysilicon, the key raw material used in silicon-based solar wafers and cells, while also offering engineering services and related equipment. In addition, the polysilicon business sells hydrochlorination technology and equipment which is utilized to convert silicon tetrachloride into trichlorosilane (TCS), which is used as seed material in the manufacture of high purity silicon. Hydrochlorination technology is designed to improve the efficiency and lowers the costs of polysilicon production.

Photovoltaic Business

Our PV business manufactures and sells directional solidification, or DSS, crystallization furnaces and ancillary equipment used to cast crystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic wafers which are, in turn, used to make solar cells.

We have made two advances in our PV segment. First, in January 2012, we announced the commercial availability of our DSS MonoCast growth technology. This technology is designed to generate silicon ingots with greater efficiencies than the silicon ingots developed with multicrystalline growth equipment. In addition, we are currently developing an equipment offering based on the continuously-fed Czochralski (HiCz) growth technology. While both our MonoCast equipment offering and our HiCz efforts are targeted at improving the ingot performance compared to that of multicrystalline silicon materials, we expect that, over an extended period of time, HiCz will ultimately supersede our MonoCast offerings. We have not yet commercialized the HiCz monocrystalline equipment, we do, however, expect to continue to sell HiCz monocrystalline material, manufactured at our pilot production plant in Hazelwood, Missouri, into select markets.

Sapphire Business

Our sapphire business manufactures and sells sapphire material and equipment. Our sapphire material is manufactured using our advanced sapphire crystal growth furnace, or ASF system. During fiscal year 2012 we began shipping and commissioning ASF systems for our customers and began recognizing revenue on these systems during the latter part of the fiscal year 2012. In addition to selling ASF systems, we intend to continue production and sale of sapphire materials in selected specialty markets on a limited scale.

Recent Developments

On October 31, 2012, we announced plans to streamline our worldwide operations to better align our cost structure with current market conditions and enhance our ability to pursue strategic growth initiatives. These steps included consolidating our existing business units into a single Crystal Growth Systems (CGS) group and cost reduction actions which included reducing our global workforce by approximately 25 percent.

Change in Fiscal Year End

On April 16, 2012, we amended our amended and restated by-laws to provide that our fiscal year will end on December 31 of each year. Prior to this amendment, our by-laws had provided that our fiscal year ended on the Saturday closest to March 31st of each year. As a result of this change to our fiscal year end, we will report a nine-month transition period consisting of the period from April 1, 2012 to December 31, 2012, and our 2013 fiscal year will begin on January 1, 2013 and end on December 31, 2013. In this Quarterly Report on Form 10-Q we are however required, under standard accounting practice, to continue to refer to the fiscal year ending March 30, 2013 until the new fiscal year commences on January 1, 2013.

Factors Affecting the Results of Our Operations

The following are some of the factors that we expect will affect our future results of operations:

- Demand for our polysilicon and PV products and services are driven by end-user demand for solar power and demand for our sapphire products are driven by end-user demand for sapphire material, LED-quality material in particular. In each of our three business segments, the end-user demand for the output of our equipment has either declined substantially or supply has surpassed demand. In order to decrease inventories, we believe that companies selling polysilicon, solar cells and wafers and sapphire material, including some of our customers, have had to sell at prices that provide little or no margin. In certain cases, customers' have been unable to decrease inventories. We expect that these circumstances will continue through the remainder of calendar year 2012 and into calendar year 2013. As a result, much of our business for the remainder of calendar year 2012 will result from filling orders in our backlog and we do not expect, during this time, that our backlog will increase during the same period.

- The current limited demand for our products or the excess capacity in the end markets our customers serve is exacerbated by trade tensions between China and the U.S. Most recently, in October 2012, the U.S. Commerce Department issued a final ruling and levied anti-dumping duties ranging from 18.32% to 249.96% on billions of dollars of solar panels and cells from China (and set countervailing duties from 14.78% to 15.97%). This final ruling will negatively impact our equipment customers in China. This follows a May 2012 Department of Commerce announcement of a preliminary determination that China had violated fair trade policies by dumping" into the U.S. certain solar products at prices that were intended to advantage Chinese manufacturers. The Chinese government responded by saying these actions were deliberately provoking trade friction between the two nations. In July 2012, the Chinese Ministry of Commerce opened investigations on imports of solar-grade polysilicon from the U.S. and South Korea, that may result in trade duties on polysilicon imports from the U.S. and South Korean polysilicon manufacturers. In addition, the European Union has commenced an investigation into whether Chinese solar equipment manufacturers have dumped equipment into the E.U. in violation of trade regulations. If the E.U. imposes duties in connection with this investigation, it could harm our business since many of our Chinese customers sell into the E.U. While this risk may be mitigated to some extent if manufacturing of solar wafers and cells shifted from China to Europe (or locations in other parts of the globe) as there may be increased demand in Europe for polysilicon and PV equipment that cannot be satisfied from China at comparable prices, the E.U. may not allow Chinese companies to avoid the duties by transferring manufacturing operations to Europe. In response to the E.U. investigation, in November 2012, the Chinese Ministry of Commerce announced that it was commencing a trade investigation into European exports of solar-grade polysilicon. Retaliatory tariffs and trade tensions with China and the U.S. and Europe (as well as South Korea, where some of our equipment customers are located) is causing uncertainty in the industry and is having a material adverse impact on our business since we sell into China and our equipment customers sell end products into Europe and the U.S.

- Changes in the global capital markets have resulted in a more stringent lending environment which in turn has caused decreased spending within the industries we serve. We believe the negative impact of a more stringent lending environment has resulted in decreased demand for all of our products. The international commercial lending environment has not stabilized and if the availability of capital or credit remains constrained (including in China) or if capital or credit were to become even more limited, we expect that our results of operations, would continue to be negatively impacted.

- The sovereign debt crisis in Europe has led to economic instability, depreciation of the euro, fiscal austerity, reduction in government support for certain programs (including solar incentives) and slowing growth in the entire region. While we have very limited sales to customers in Europe, a portion of the end-users of solar power and LED materials are located in Europe, and as a result, our equipment customers have been negatively impacted by the sovereign debt crisis. We expect that this crisis will cause further decrease in demand for our polysilicon, sapphire and PV equipment offerings. In addition, there is increasing evidence that this economic instability is impacting other regions as well, including China, and may be directly impacting our equipment customers.

- Margins on our PV equipment, particularly our DSS multicrystalline furnaces, decreased significantly during the quarter ended September 29, 2012. We expect that the average selling prices for this equipment will continue to remain low as we transition the focus of our PV sales to our monocrystalline (MonoCast) and HiCz furnaces over the next twenty-four to thirty-six months. In addition, we have a significant amount of contracts in our backlog related to the DSS multicrystalline furnace. Customers may request that we renegotiate terms of existing contracts to obtain lower prices or request that (in lieu of the equipment they ordered) they receive newer technology that we have developed, and such negotiations may result in reduced prices and reduction in the number of units to be delivered and a change in other terms, which may have an impact on our results of operations and our order backlog. As margins are dropping in the solar wafer and cell industry, PV companies may require these types of changes to their production equipment contracts in order to continue to maintain operations.

- There is an excess of polysilicon manufacturing capacity and the market price for polysilicon has significantly declined. As a result, we expect that there will be a greater focus on reducing production costs among polysilicon manufacturers, putting substantial pressure on our customers to lower the cost of equipment they purchase from us or to delay or cancel their purchases of polysilicon production equipment. These factors may also produce consolidation in the industry. We believe we are well positioned to capture a portion of the future demand for polysilicon equipment among the more limited number of manufacturers by delivering equipment with higher throughput and lower power consumption, leading to greater efficiencies. However, the timing of any future purchases is uncertain and it may be a significant amount of time before we see the benefits of any purchases of equipment, if at all.

- Some of our PV customers have lowered capacity utilization rates and delayed or terminated expansion projects as they respond to weaker end market demand. We do not expect that the market demand for multicrystalline PV products will return to previous levels, and it may remain very limited (particularly as a result of improvements in monocrystalline growth technologies). In an effort to respond to anticipated future demand for more efficient PV cells and wafers, we recently commercially launched our DSS MonoCast growth technology and expect to launch our HiCz equipment offering in 2013. However, we may not recognize substantial revenues from these products for several quarters, if at all, and they may not generate revenue in amounts previously recognized through DSS multicrystalline furnace sales.

- Demand for PV on-grid applications (and, in turn, our PV equipment) has historically been dependent in part on the availability and size of government subsidies and incentives. We believe that governments are moving more aggressively to reduce all forms of governmental assistance to the solar industry and we expect that governmental subsidies, feed-in tariffs and similar supports will be eliminated in their entirety in the near future. We believe decreasing costs within the solar value chain will help to off-set, in part, the effect of tariffs on the investment returns for solar projects. The reduction in government incentive programs, however, creates uncertainty for the solar industry.

- The price for sapphire material has recently experienced significant decreases. We expect that current decreased prices will continue. Consequently, we anticipate that demand for our ASF systems will also remain lower than in previous quarters. Further, customers may request delivery of ASF systems be delayed until the price of sapphire recovers which would delay the timing of which amounts attributable to ASF systems roll-off of backlog and into revenue and the timing on which we enter into new contracts to sell ASF systems. Additionally, we may receive requests to cancel deliveries, which would reduce our backlog.

- In the past, one of the expected future drivers of demand for sapphire was expected to be, in large part, the increased use of sapphire materials in general illumination. To this point, that broad adoption of LED in lighting is slower than expected. As a result, the future demand for ASF systems attributable to this market are not expected to increase markedly in the immediate future. However, the use of sapphire in industrial applications and consumer electronics has been adopted to a limited extent, and could lead to new market opportunities for the ASF system. While the use of sapphire in these applications is still in the very early stages, it represents a potential market and may result in increased demand for sapphire manufacturing equipment.

- Our business plan is focused on growing and diversifying our product and technology offerings including into markets or industries that are unrelated to those markets we currently serve. We are, however, an equipment company and we currently expect that future acquisitions, investments or development arrangements will be for the purpose of accessing technologies that will enable us to provide industrial equipment to our customers. If we are successful in developing, investing in or acquiring technologies or companies from third parties, our company may be viewed by the market in the future as other than a solar and sapphire company and our stock may be valued differently than is currently the case depending on what markets we serve in the future.

- In addition, our results of operations are affected by a number of other factors including the availability and market price of polysilicon, alumina material and certain process consumables, availability of raw materials, foreign exchange rates, interest rates, commodity prices (including molybdenum, steel and graphite prices) and macroeconomic factors, including the availability of capital that may be needed by our customers, as well as political, regulatory and legal conditions in the international markets in which we conduct business, including China.

Order Backlog

Our order backlog primarily consists of amounts due under written contractual commitments and signed purchase orders for PV, polysilicon and sapphire equipment not yet shipped to customers, deferred revenue (which represents amounts for equipment that has been shipped to customers but not yet recognized as revenue) and short-term contracts or sales orders for sapphire materials. Substantially all of the contracts in our order backlog for PV, polysilicon and sapphire equipment require the customer to either post a standby letter of credit in our favor and/or make advance payment prior to shipment of equipment.

From the date of a written commitment, we generally would expect to deliver PV and sapphire equipment products over a period ranging from three to nine months and polysilicon products over a period ranging from twelve to eighteen months, however, in certain cases revenue may be recognized over longer periods. Although most of our orders require non-refundable deposits, our order backlog as of any particular date should not be relied upon as indicative of our revenues for any future period.

If a customer fails to perform its outstanding contractual obligations on a timely basis, and such failure continues after notice of breach and a cure period, we may terminate the contract. Our contracts generally do not contain cancellation provisions and in the event of a customer breach, the customer may be liable for cash damages resulting from the material breach of the terms of the agreement. During the six months ended September 29, 2012, we terminated or modified contracts resulting in a $88.3 million reduction in our order backlog (99% of the reduction was attributable to two contracts). During the fiscal year ended March 31, 2012, we terminated or modified contracts resulting in a $135.9 million reduction in our order backlog (74% of the reduction was attributable to six contracts). During the six months ended September 29, 2012, we recorded revenues of $8.5 million from terminated contracts and during the fiscal year ended March 31, 2012, we recorded revenues of $35.5 million from terminated contracts.

Although we have a reasonable expectation that most of our customers will substantially perform on their contractual obligations, we attempt to monitor those contracts that we believe to be at risk, which include contracts with customers to whom we have sent notices of breach for failure to provide letters of credit or to make payments when due. From time to time in the ordinary course of business, we conduct negotiations with certain customers who have requested that we extend their delivery schedules or make other contract modifications, or who have not provided letters of credit or made payments in accordance with the terms of their contracts. We monitor the effect, if any, that these negotiations may have on our future revenue recognition. If we cannot come to an agreement with these customers, our order backlog could be reduced. Other customers with contracts in our order backlog that are not currently under negotiation may approach us with similar requests in the future, or may fail to provide letters of credit or to make payments when due. If we cannot come to an agreement with these customers, our order backlog could be further reduced. If we do come to an agreement with customers extending delivery schedules, the timing of expected revenue recognition could be pushed into later periods than we had anticipated.

The table below sets forth our order backlog as of September 29, 2012 and March 31, 2012:

	September 29, 2012		March 31, 2012	
Product Category	**Amount**	**% of Backlog**	**Amount**	**% of Backlog**
		(dollars in millions)		
Photovoltaic business	$ 141	10%	$ 138	8%
Polysilicon business	618	42%	880	49%
Sapphire business	718	48%	761	43%
Total	$ 1,477	100%	$ 1,779	100%

Our order backlog totaled $1.5 billion as of September 29, 2012. Our order backlog attributable to our PV, polysilicon and sapphire businesses as of September 29, 2012, included deferred revenue of $93.2 million, of which $2.5 million related to our PV business, $84.3 million related to our polysilicon business and $6.4 million related to our sapphire business. Cash received in deposits related to our order backlog where deliveries have not yet occurred was $249.6 million as of September 29, 2012.

As of September 29, 2012, our order backlog consisted of contracts with 12 PV customers, contracts with 15 polysilicon customers, and contracts with several sapphire customers. Our order backlog as of September 29, 2012, included $430.2 million, $304.9 million and $155.4 million attributed to three different customers, each of which individually represents 29%, 21% and 11%, respectively, of our order backlog.

Results of Operations

The following tables set forth the results of operations as a percentage of revenue for the three and six months ended September 29, 2012 and October 1, 2011:

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Statements of Operations Data:*				
Revenue	100%	100%	100%	100%
Cost of revenue	68	56	66	54
Gross profit	32	44	34	46
Research and development	17	5	12	4
Selling and marketing	3	3	3	3
General and administrative	14	9	11	8
Contingent consideration expense	(9)	1	(4)	1
Amortization of intangible assets	2	1	2	—
Income from operations	5	25	10	30
Interest income	—	—	—	—
Interest expense	(1)	(1)	(1)	(1)
Other income (expense), net	—	—	—	—
Income before income taxes	4	24	9	29
Provision for income taxes	1	7	3	9
Net income	3%	17%	6%	20%

* Percentages subject to rounding.

Three and Six Months Ended September 29, 2012 compared to Three and Six Months Ended October 1, 2011

Revenue. The following table sets forth total revenue for the three and six months ended September 29, 2012 and October 1, 2011:

	Three Months Ended				Six Months Ended			
Business Category	September 29, 2012	October 1, 2011	Change	% Change	September 29, 2012	October 1, 2011	Change	% Change
	(dollars in thousands)				(dollars in thousands)			
Photovoltaic business	$ 1,556	$ 111,190	$ (109,634)		$ 10,982	$ 309,818	$ (298,836)	
Polysilicon business	95,856	98,009	(2,153)		217,376	121,894	95,482	
Sapphire business	12,649	8,492	4,157		48,955	17,075	31,880	
Total revenue	$ 110,061	$ 217,691	$ (107,630)	(49)%	$ 277,313	$ 448,787	$ (171,474)	(38)%

Revenue from our PV business decreased 99% to $1.6 million for the three months ended September 29, 2012, as compared to $111.2 million for the three months ended October 1, 2011. Revenue from our PV business decreased 96% to $11.0 million for the six months ended September 29, 2012 as compared to $309.8 million for the six months ended October 1, 2011. The decrease for the three and six months ended is primarily due to (i) limited demand for our DSS products, which led to fewer orders, and (ii) as a result of fewer shipments of our DSS products to solar manufacturers as compared to the corresponding periods in the preceding year. This trend of decreased demand for DSS products began in fiscal year 2012 and, we believe, is the result of the current excess capacity of solar wafers and cells. Our PV business is subject to fluctuations in demand for our PV products, particularly our DSS furnace.

Revenue from our polysilicon business decreased 2% to $95.9 million for the three months ended September 29, 2012, as compared to $98.0 million for the three months ended October 1, 2011. Revenue from our polysilicon business increased 78% to $217.4 million for the six months ended September 29, 2012 as compared to $121.9 million for the six months ended October 1, 2011. This increase for six months ended September 29, 2012 was driven primarily by revenue recognized on one customer contract comprised of SDR reactors, hydrochlorination equipment and product processing equipment. The remainder of the increase for the six months ended September 29, 2012 relates to the timing of revenue recognition due to shipments completed in the current year. There was no material change to the revenue related to our polysilicon business for the three months ended September 29, 2012 compared to the three months ended October 1, 2011. Polysilicon revenue may fluctuate significantly from period to period due to the timing of shipments and the length of time it takes to complete our obligations under the contracts. As a result of this variability, our polysilicon business tends to have a higher level of deferred revenue than our other business segments. Approximately 90% and 82% of our deferred revenue balances at September 29, 2012 and October 1, 2011, respectively, relate to our polysilicon business.

Included in our backlog are certain polysilicon contracts that grant contractual rights which require us to recognize revenue ratably over the contract period. Revenue recognition from these contracts commences when all other elements have been delivered and other contract criteria have been met. During the three and six months ended September 29, 2012 and October 1, 2011, we recognized revenue on a ratable basis from six of these contracts of $42.6 million, $47.7 million, $85.2 million and $68.6 million, respectively. As of September 29, 2012, our deferred revenue balance included $43.5 million related to these contracts.

Our sapphire business revenue during the three and six months ended September 29, 2012 is attributable to the sale of sapphire equipment and material used mostly, we believe, in sapphire-based LED applications and other specialty markets. Revenue from our sapphire business was $12.6 million for the three months ended September 29, 2012, as compared to $8.5 million for the three months ended October 1, 2011. Revenue from our sapphire business was $49.0 million for the six months ended September 29, 2012, as compared to $17.1 million for the six months ended October 1, 2011. The increase in revenue for our sapphire business is primarily related to the commercialization of our ASF systems. We did not begin recognizing revenue on these units until the third quarter of fiscal 2012. As such, there are no amounts related to the sale of our ASF systems included in revenue for the three and six months ended October 1, 2011.

A substantial percentage of our revenue results from sales to a small number of customers. Two of our customers accounted for 75% of our revenue for the three months ended September 29, 2012 and three customers accounted for 63% of our revenue for the three months ended October 1, 2011. Three of our customers accounted for 73% of our revenue for the six months ended September 29, 2012 and two customers accounted for 31% of our revenue for the six months ended October 1, 2011. No other customer accounted for more than 10% of our revenue during the respective periods.

Gross Profit and Gross Margins. The following tables set forth gross profit and gross margin for the three and six months ended September 29, 2012 and October 1, 2011.

	Three Months Ended				Six Months Ended			
	September 29, 2012	October 1, 2011	Change	% Change	September 29, 2012	October 1, 2011	Change	% Change
	(dollars in thousands)				(dollars in thousands)			
Gross profit								
Photovoltaic business	$ (3,312)	$ 51,269	$ (54,581)		$ (2,164)	$ 153,773	$ (155,937)	
Polysilicon business	35,095	42,296	(7,201)		82,930	52,057	30,873	
Sapphire business	3,245	1,520	1,725		14,468	2,644	11,824	
Total	$ 35,028	$ 95,085	$ (60,057)	(63)%	$ 95,234	$ 208,474	$ (113,240)	(54)%

	Three Months Ended		Six Months Ended	
	September 29, 2012	October 1, 2011	September 29, 2012	October 1, 2011
Gross margins				
Photovoltaic business	(213)%	46%	(20)%	50%
Polysilicon business	37%	43%	38%	43%
Sapphire business	26%	18%	30%	15%
Overall	32%	44%	34%	46%

Overall gross profit as a percentage of revenue, or gross margin, decreased to 32% and 34% for the three and six months ended September 29, 2012, respectively, from 44% and 46% for the three and six months ended October 1, 2011, respectively. The decrease in gross margins primarily relates to our PV business and is further discussed below.

Our gross margins in our PV, polysilicon and sapphire businesses tend to vary depending on the volume, pricing and timing of revenue recognition.

Our PV gross margins for the three and six months ended September 29, 2012 were (213)% and (20)%, respectively, as compared to 46% and 50% for the three and six months ended October 1, 2011, respectively. The decrease for the three and six months ended September 29, 2012 was due primarily to a decrease in the average selling price and number of DSS units shipped as compared to the three and six months ended October 1, 2011. In addition, for the three and six months ended September 29, 2012, the cost of equipment sold and fixed periodic costs exceeded revenue.

Our polysilicon gross margins for the three and six months ended September 29, 2012 were 37% and 38%, respectively, as compared to 43% for both the three and six months ended October 1, 2011. The decrease in polysilicon gross margins for the three and six months ended September 29, 2012 was primarily due to the timing of revenue on the final portion of the value of certain polysilicon contracts, which are tied to performance payments earned if and when certain operating metrics are achieved. Such payments would be recognized in a period subsequent to the quarter ended September 29, 2012, but all expenses for such equipment were recognized. We expect polysilicon margins in subsequent periods to increase once final acceptance has occurred on these contracts.

Our sapphire gross margins for the three and six months ended September 29, 2012 were 26% and 30%, respectively, as compared to 18% and 15% for the three and six months ended October 1, 2011, respectively. The increase in gross margin for the sapphire business during the three and six months ended September 29, 2012 is primarily related to the commercialization of our ASF systems. During the three months ended December 31, 2011, we recorded, for the first time, revenues in connection with the sale of our sapphire equipment (and continued to recognize such equipment revenue in the three and six months ended September 29, 2012), and as such, there is no comparable ASF systems revenue for the three and six months ended October 1, 2011. Margins on the sale of our sapphire equipment are higher than our historical sapphire margins (which are attributable solely to sapphire material production and sales). Revenue recognized in connection with contract terminations for our sapphire business was $5.6 million for both the three and six months ended September 29, 2012, respectively. This revenue was recognized without any significant direct costs and increased margins for our sapphire business by approximately 9% for the six months ended September 29, 2012. This increase was offset partially by reduced production at our facility in Salem, Massachusetts. During the six months ended September 29, 2012, the majority of this facility was used for research and development activities. This increase was also partially offset by a decrease in the market price of sapphire, resulting in a decrease of the average selling price of our sapphire materials as compared to the same period in the prior year.

Operating Expenses. The following table sets forth total operating expenses for the three and six months ended September 29, 2012 and October 1, 2011:

	Three Months Ended				Six Months Ended			
	September 29, 2012	October 1, 2011	Change	% Change	September 29, 2012	October 1, 2011	Change	% Change
	(dollars in thousands)				(dollars in thousands)			
Operating Expenses								
Research and development	$ 18,767	$ 10,008	$ 8,759	88%	$ 32,706	$ 21,280	$ 11,426	54%
Selling and marketing	3,123	7,114	(3,991)	(56)%	6,950	13,267	(6,317)	(48)%
General and administrative	15,428	19,582	(4,154)	(21)%	30,561	35,110	(4,549)	(13)%
Contingent consideration expense	(9,943)	2,787	(12,730)	(457)%	(9,788)	3,467	(13,255)	(382)%
Amortization of intangible assets	2,538	1,760	778	44%	5,085	2,830	2,255	80%
Total	$ 29,913	$ 41,251	$ (11,338)	(27)%	$ 65,514	$ 75,954	$ (10,440)	(14)%

Operating expenses decreased 27% to $29.9 million for the three months ended September 29, 2012, as compared to $41.3 million for the three months ended October 1, 2011, and decreased 14% to $65.5 million for the six months ended September 29, 2012, as compared to $76.0 million for the six months ended October 1, 2011.

Research and development expenses consist primarily of payroll and related costs, including stock-based compensation expense, for research and development personnel who design, develop, test and deploy our PV, polysilicon and sapphire equipment, materials and services. We expect to continue to invest in new product development and attempt to expand certain of our existing product bases in each of our segments, as well as efforts to introduce new products across each of our segments. Research and development expenses increased 88% to $18.8 million for the three months ended September 29, 2012, as compared to $10.0 million for the three months ended October 1, 2011, and increased 54% to $32.7 million for the six months ended September 29, 2012, as compared to $21.3 million for the six months ended October 1, 2011. The increases for the three and six months ended September 29, 2012, as compared to the three and six months ended October 1, 2011 primarily related to an increase in the amount of expenses allocated to research and development of $4.8 million and $7.0 million, respectively, primarily driven by activities at our Salem, Massachusetts (our sapphire pilot facility) and Hazelwood, Missouri (our HiCz pilot facility) facilities in connection with improving our existing sapphire and HiCz products, an increase in other research and development expenses of $2.8 million and $2.9 million, respectively, primarily as a result of increased usage of non-production materials and consumables, and an increase in outside service related costs of $0.8 million and $1.0 million, respectively.

Selling and marketing expenses consist primarily of payroll and related costs, stock-based compensation expense and commissions for personnel engaged in marketing, sales and support functions, as well as advertising and promotional expenses. Selling and marketing expenses decreased 56% to $3.1 million for the three months ended September 29, 2012, as compared to $7.1 million for the three months ended October 1, 2011, and decreased 48% to $6.9 million for the six months ended September 29, 2012, as compared to $13.3 million for the six months ended October 1, 2011. The decrease in sales and marketing expenses for the three and six months ended September 29, 2012 were primarily driven by a decrease in sales commissions of $3.9 million and $5.3 million, respectively, principally a result of fewer third party commissions in our PV business in connection with the decrease in PV revenue. In addition, the decrease in sales and marketing expenses for the six months ended September 29, 2012 was also attributable to a decrease in payroll and payroll-related expenses of $0.3 million and a decrease in other sales and marketing expenses of $0.6 million, primarily the result of decreased trade show expenses. Sales commissions are accrued based on operational factors such as deposits, shipments and final acceptances received from customers rather than when revenue is recognized and thus may vary from quarter to quarter.

General and administrative expenses consist primarily of the following components: payroll, stock-based compensation expense and other related costs, including expenses for executive, finance, business applications, human resources and other administrative personnel; and fees for professional services. The decrease in general and administrative expenses of 21% to $15.4 million in the three months ended September 29, 2012, as compared to $19.6 million for the three months ended October 1, 2011, was primarily driven by a $3.1 decrease in transaction-related expense; a $0.6 million decrease in banking related fees; a $0.5 million decrease in other general and administrative expense; and a decrease in consulting expense of $0.4 million. These decrease for the three months ended September 29, 2012 were offset, in part, by an increase of $0.6 million in payroll and payroll related costs, primarily driven by stock-based compensation. The decrease in general and administrative expenses of 13% to $30.6 million in the six months ended September 29, 2012, as compared to $35.1 million for the six months ended October 1, 2011, was primarily driven by a $3.2 million decrease in transaction-related expenses; a $1.6 million decrease in other general and administrative expenses; and a $0.7 million decrease in office related supplies. These decreases for the six months ended September 29, 2012 were offset, in part, by an increase of $0.6 million in payroll and payroll related costs, primarily driven by stock-based compensation.

Contingent Consideration Expense. Contingent consideration expense consists of the accretion of our contingent consideration liabilities to their respective fair values. Contingent consideration expense decreased to $(9.9) million for the three months ended September 29, 2012, as compared to $2.8 million for the three months ended October 1, 2011, and decreased to $(9.8) million for the six months ended September 29, 2012, as compared to $3.5 million for the six months ended October 1, 2011. During the three months ended September 29, 2012, based on the failure to satisfy certain operational and technical targets by the contractual target dates in connection with the Confluence Solar acquisition, we determined that the earn-out opportunities related to these targets were not achieved and we recognized a total decrease in the fair value of contingent consideration of $(8.2) million in the condensed consolidated statements of operations. In addition, we recorded contingent consideration expense of $(1.6) million in connection with a change in probabilities of the remaining earn-out targets in connection with the Confluence Solar acquisition. The remainder of the decrease for the three and six months ended September 29, 2012, as compared to the respective periods in the prior year, is due to the absence of contingent consideration expense recorded in the prior periods related to Crystal Systems contingent consideration, which was fully paid in the quarter ended June 30, 2012.

Amortization Expense. Amortization of intangible assets consists of the amortization of intangible assets obtained in business or technology acquisitions. Amortization expense attributed to intangible assets increased 44% to $2.5 million for the three months ended September 29, 2012, as compared to $1.8 million for the three months ended October 1, 2011, and increased 80% to $5.1 million for the six months ended September 29, 2012, as compared to $2.8 million for the six months ended October 1, 2011. The increase for the three and six months ended September 29, 2012 was due to an increase of $1.1 million and $2.9 million in amortization related to the Confluence Solar acquisition, respectively. This increase was partially offset by a decrease of $0.3 million and $0.6 million for the three and six months ended October 1, 2011, respectively, in amortization expense attributed to the mix of intangible assets being amortized, as certain intangibles related to our PV business became fully amortized during fiscal 2012.

Interest Income. Interest income decreased to less than $0.1 million for the three months ended September 29, 2012, as compared to $0.1 million for the three months ended October 1, 2011, and decreased to less than $0.1 million for the six months ended September 29, 2012, as compared to $0.2 million for the six months ended October 1, 2011. The decreases were driven primarily by decreases in the returns earned on our invested cash, as well as lower average cash balances, during the three and six months ended September 29, 2012, as compared to the same periods in the prior year. We invest our excess cash primarily in money market mutual funds.

Interest Expense. Interest expense includes interest paid on our debt obligations as well as amortization of deferred financing costs. Interest expense decreased to $1.6 million for the three months ended September 29, 2012, as compared to $1.8 million for the three months ended October 1, 2011. The decrease was due primarily to the lower interest rate on our Credit Facility with Bank of America N.A (and certain other lenders) (which was entered into in January 2012) as compared to the one it replaced. Interest expense decreased to $2.6 million for the six months ended September 29, 2012, as compared to $5.4 million for the six months ended October 1, 2011 for the same reason. In addition, during the three months ended July 2, 2011, we made a voluntary prepayment of $20.0 million under our credit facility with Credit Suisse (which was subsequently terminated and repaid). In connection with this prepayment, we recorded a charge of $0.9 million to accelerate a portion of the outstanding deferred financing fees under this credit facility. Included in interest expense for the six months ended September 29, 2012 was $0.6

million of non-cash charges for the amortization of deferred financing costs in connection with the 2012 Credit Facility. The balance of interest expense relates primarily to interest expense for the six month period ended September 29, 2012 associated with the 2012 Credit Facility we entered into with Bank of America N.A. (and certain other lenders). We expect interest expense to increase in future periods in connection with our 3.00% Senior Convertible Notes offering completed on September 28, 2012.

Other, net. Other expense, net, was $0.4 million and $0.9 million for the three and six months ended September 29, 2012, respectively, as compared to other income, net, of $0.2 million and $0.1 million for the three and six months ended October 1, 2011, respectively. This increase in expense was driven primarily by a $0.9 million charge to record foreign currency losses on the ineffective portion of our foreign currency exchange forward contracts during the six months ended September 29, 2012 as a result of changes in the payments of certain of our outstanding purchase obligation. The increase in the three months ended September 29, 2012 compared to the corresponding period in the prior year was also principally the result of foreign currency losses on the ineffective portion of our foreign currency exchange forward contracts.

Provision for Income Taxes. Our effective tax rate is based on our expectation of annual earnings from operations in the U.S. and other tax jurisdictions world-wide.

Our world-wide effective tax rate was 24.2% and 29.4% for the three months ended September 29, 2012 and October 1, 2011, respectively, and 34.8% and 30.2% for the six months ended September 29, 2012 and October 1, 2011, respectively. The effective tax rate is lower in the three months ended September 29, 2012, principally due to the reversal of previously reported nondeductible expenses related to a contingent liability. The effective tax rate is higher in the six months ended September 29, 2012, principally due to proportionally lower expected levels of income in lower tax jurisdictions. As a result, more income is taxed in jurisdictions with higher tax rates.

Liquidity and Capital Resources

Overview

We fund our operations generally through cash generated from operations, proceeds from credit facilities and proceeds from exercises of stock awards.

Our cash and cash equivalents balance increased by $128.3 million during the six months ended September 29, 2012, from $350.9 million as of March 31, 2012 to $479.2 million as of September 29, 2012. The increase was principally attributable to $220.0 million of proceeds in connection with the issuance of our 3.0% senior convertible notes due 2017, $41.6 million in proceeds from the sale of warrants and an increase of $70.0 million in connection with increasing our term loan with Bank of America. These inflows were offset, in part, by a $58.0 million payment for the purchase of bond hedges in connection with our convertible debt offering, payments of $21.4 million for the purchase of property, plant and equipment and the remainder of the amount was principally attributable to cash utilized in connection with working capital purchases.

We manage our cash inflows through the use of customer deposits, milestone billings and debt financings intended to allow us in turn to meet our cash outflow requirements, which primarily consist of vendor payments and prepayments for contract related costs (raw material and components costs) as well as payroll and overhead costs as we perform on our customer contracts. The following discussion of the changes in our cash balance refers to the various sections of our Condensed Consolidated Statements of Cash Flows, which appears in Item 1 of this Quarterly Report on Form 10-Q.

Our principal uses of cash are for raw materials and components, wages, salaries and investment activities, such as the purchase of property, plant and equipment, business acquisitions, repurchases of our common stock and payments on outstanding debt. We outsource a significant portion of our equipment manufacturing and therefore we require minimal capital expenditures to meet our production demands.

The following table summarizes our primary cash flows in the periods presented:

	Six Months Ended	
	September 29, 2012	October 1, 2011
	(dollars in thousands)	
Cash provided by (used in):		
Operating activities	$ (109,055)	$ 226,246
Investing activities	(21,311)	(78,591)
Financing activities	258,689	(26,653)
Effect of foreign exchange rates on cash	(7)	13
Net (decrease) increase in cash and cash equivalents	$ 128,316	$ 121,015

Cash Flows from Operating Activities

For the six months ended September 29, 2012, our cash used in operations was $109.1 million. Our cash used in operations was driven primarily by a decrease in customer deposits of $82.5 million, a decrease in deferred revenue of $103.0 million, an increase in inventories of $26.6 million and a decrease in income taxes payable of $35.2 million. These amounts were offset by net income of $17.1 million, a decrease in accounts receivable $54.1 million, a decrease in deferred costs of $60.5 million and an increase in accounts payable and accrued expenses of $10.8 million.

For the six months ended October 1, 2011, our cash provided by operations was $226.2 million. Our cash flow from operations was driven primarily by net income of $89.0 million, an increase in customer deposits of $154.3 million due to new orders in our polysilicon and sapphire equipment businesses and a decrease in accounts receivable of $18.5 million. These items were partially offset by an increase in inventories of $35.5 million and a decrease in accounts payable and accrued expenses of $24.8 million.

Cash Flows from Investing Activities

For the six months ended September 29, 2012, our cash used in investing activities was $21.3 million. This is comprised primarily of capital expenditures for the period totaling $21.4 million. These capital expenditures were primarily used for expanding our product offerings in the PV business (including developing our HiCz technology and improving our business information systems).

Our total capital expenditures for the fiscal year ending March 30, 2013 are expected to range from approximately $40 million to approximately $50 million consisting primarily of manufacturing equipment and capital investments in our Hazelwood, Missouri pilot production facility. We acquired the Hazelwood facility in connection with the Confluence Solar acquisition, in our efforts to commercialize our HiCz equipment product which is currently under development and as a pilot facility for high-performance monocrystalline silicon manufacturing. However, our capital expenditures may exceed such range if we were to accelerate plans for the implementation of our growth strategy.

For the six months ended October 1, 2011, our cash used in investing activities was $78.6 million. The acquisition of Confluence Solar, net of cash acquired, consumed approximately $60.9 million of cash. Additionally, capital expenditures for the period were approximately $18.1 million. These capital expenditures were primarily used for expanding our sapphire business and improving our business information systems.

Cash Flows from Financing Activities

For the six months ended September 29, 2012, cash provided by financing activities was $258.7 million, driven primarily by $220 million of proceeds in connection with the issuance of our 3.0% senior convertible notes due 2017, $41.6 million in proceeds from the sale of warrants and an increase of $70.0 million in connection with increasing our term loan with Bank of America. This was offset, in part by the following; a $58.0 million payment for the purchase of bond hedges in connection with the offering of our 3.0% senior convertible notes due 2017; $7.3 million of transactions costs associated with the offering of our 3.0% senior convertible notes due 2017; the payment of our contingent consideration obligation in connection with the acquisition of Crystal Systems, of which $4.5 million was recorded as a financing activity for the six months ended September 29, 2012; and the remainder of the amount was principally attributable to cash utilized in connection with working capital purchases. With respect to the contingent consideration payment, this was the final contingent consideration obligation in connection with the Crystal Systems acquisition.

For the six months ended October 1, 2011, cash used in financing activities was $26.7 million, driven primarily by principal payments of $29.4 million made under the credit facility we had entered into with Credit Suisse (which was subsequently terminated and repaid). Of these principal payments, $9.4 million related scheduled principal payments under the term facility with Credit Suisse. The remaining $20.0 million represented an additional voluntary principal prepayment made by us on June 15, 2011. These cash outflows were offset by proceeds and related tax benefits from the exercise of stock awards of $9.0 million.

We believe that cash generated from operations together with our existing cash, including cash received under the term facility with Bank of America N.A. (and certain other lenders), customer deposits, amounts available under our revolving credit facility with Bank of America N.A. (and certain other lenders) and amounts received in connection with the issuance of our 3.00% Convertible Senior Notes due 2017, will be sufficient to satisfy working capital requirements, commitments for capital expenditures, and other cash requirements for the foreseeable future, including at least the next twelve months. We, however, consistently review strategic opportunities in an effort to find opportunities to improve our products, technologies, operations, overall business and increase shareholder value, these opportunities may include business acquisitions, asset acquisitions, technology licenses, dividends to shareholders, accelerated prepayments of outstanding indebtedness, share buybacks and joint ventures. If we were to engage in any of the foregoing, it could require that we utilize a significant amount of our available cash and, as a result, we may be required to increase our outstanding indebtedness or raise additional capital in through the sale of equity, which may not be available on favorable terms, or at all.

Long Term Debt

Bank of America Credit Agreement

On January 31, 2012, we, our U.S. operating subsidiary (the "U.S. Borrower") and our Hong Kong subsidiary (the "Hong Kong Borrower") entered into a credit agreement (the "2012 Credit Agreement"), with Bank of America, N.A., as administrative agent, Swing Line Lender and L/C Issuer ("Bank of America") and the lenders from time to time party thereto. The 2012 Credit Agreement consists of a term loan facility (the "2012 Term Facility") provided to the U.S. Borrower in an aggregate principal amount of $75.0 million with a final maturity date of January 31, 2016, a revolving credit facility (the "U.S. Revolving Credit Facility") available to the U.S. Borrower in an aggregate principal amount of $25.0 million with a final maturity date of January 31, 2016 and a revolving credit facility (the "Hong Kong Revolving Facility" together with the U.S. Revolving Credit Facility, the "2012 Revolving Credit Facility" together with the "Term Facility", the "2012 Credit Facilities") available to the Hong Kong Borrower in an aggregate principal amount of $150.0 million with a final maturity date of January 31, 2016. The 2012 Credit Facilities are available in the form of base rate loans based on Bank of America's prime rate plus a margin of 2.00% or Eurodollar rate loans based on LIBOR plus a margin of 3.00%. The 2012 Term Facility amortizes in equal quarterly amounts which in the aggregate equal 5% of the original principal amount of the Term Facility in each of years 1 and 2 of the loan and 10% of the original principal amount of the Term Facility in each of years 3 and year 4 of the loan, with the balance payable on January 31, 2016. The 2012 Credit Facilities are subject to mandatory prepayment in the event that we have excess cash flow or receive cash proceeds from certain types of asset sales, extraordinary receipts or issuance of indebtedness not otherwise permitted under the 2012 Credit Agreement during any fiscal year, subject to certain thresholds and exceptions. The 2012 Credit Facilities also require us to comply with certain covenants, including a maximum consolidated leverage ratio and a minimum consolidated interest coverage ratio. Proceeds of the Term Facility and 2012 Revolving Credit Facility are available for use by us and our subsidiaries for general corporate purposes. The full amount of the 2012 Term Facility was drawn by the U.S. Borrower on January 31, 2012 and no amounts were drawn on the 2012 Revolving Facility as of such date. We may use the 2012 Revolving Facility in connection with the issuance of letters of credit up to the aggregate principal amount of the Revolving Facility or for other purposes as permitted under the 2012 Revolving Credit Facility. As a result of certain incremental term loans entered into in June 2012, the aggregate principal amount of the 2012 Term Facility was increased from $75.0 million to $145.0 million, all of which was borrowed by the U.S. Borrower. As of September 29, 2012, the Company had approximately $66.5 million of outstanding letters of credit pursuant to the 2012 Revolving Facilities resulting in approximately $108.5 million of available credit under the 2012 Revolving Facilities.

For additional information on the 2012 Credit Agreement, see Note 12 to the notes to our condensed consolidated financial statements in Item 1 "Financial Statements" included elsewhere in this Quarterly Report on Form 10-Q.

As of September 29, 2012, the Company was in compliance with the covenants contained in the 2012 Credit Agreement.

3.00% Convertible Senior Notes due 2017

On September 28, 2012, we issued $220.0 million aggregate principal amount of 3.00% Convertible Senior Notes due 2017 (the "Notes").The net proceeds from the issuance of the Notes were approximately $212.7 million, after deducting fees paid to the initial purchasers and other offering costs. The Notes are senior unsecured obligations, which pay interest in cash semi-annually at a rate of 3.00% per annum. The Notes are governed by an Indenture dated September 28, 2012 with U.S. Bank National Association, as trustee. The Notes are not redeemable by us.

For additional information on the Notes, see Note 12 to the notes to our condensed consolidated financial statements in Item 1 "Financial Statements" included elsewhere in this Quarterly Report on Form 10-Q.

For the purposes of this Quarterly Report on 10-Q, all references to the Indenture shall be deemed to include any supplements to such Indenture.

Convertible Note Hedge Transactions and Warrant Transactions

In connection with the issuance of the Notes, we entered into separate convertible note hedge transactions and warrant transactions with certain counterparties. For additional information on the convertible note hedge transactions and warrant transactions , see Note 12 to the notes to our condensed consolidated financial statements in Item 1 "Financial Statements" included elsewhere in this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships.

Standby Letters of Credit

As of September 29, 2012, we had $66.5 million of standby letters of credit outstanding against the 2012 Revolving Credit Facility, which represented performance guarantees issued against customer deposits. These standby letters of credit are scheduled to expire within the next twelve months and have not been included in the condensed consolidated financial statements included herein.

Contractual Obligations and Commercial Commitments

There have been no material changes to our "Contractual Obligations and Commercial Commitments" table in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Form 10-K for the fiscal year ended March 31, 2012, other than:

i) As of September 29, 2012, purchase commitments under agreements totaled $355.9 million, substantially all of which are due within twelve months. As of September 29, 2012, prepayments under certain of these purchase commitments amounted to $99.5 million.

ii) On various dates between June 15, 2012 and June 25, 2012, the U.S. Borrower increased its borrowings under the 2012 Term Facility in an aggregate amount equal to $70.0 million pursuant to the 2012 Credit Agreement.

iii) In September 2012, we issued $220.0 million aggregate principal amount of our 3.00% Convertible Senior Notes due 2017. Interest payments under the Notes are expected to total $33.0 million over the contractual term of the Notes.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2011, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update No. 2011-05, *Presentation of Comprehensive Income*. This standard eliminates the current option to report other comprehensive income and its components in the statement of changes in stockholders' equity. The amendment requires that all non-owner changes in stockholders' equity be presented either in a single statement of comprehensive income or in two separate but consecutive statements. The standard is intended to enhance comparability between entities that report under U.S. GAAP and those that report under International Financial Reporting Standards, and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. The amendments in this update are to be applied retrospectively. We adopted this standard in the quarter ended June 30, 2012. The adoption of this standard did not have a material impact on our consolidated financial statements.

In September 2011, the FASB issued Accounting Standards Update No. 2011-08, *Testing Goodwill for Impairment*, which amends the guidance on testing goodwill for impairment. Under the revised guidance, entities testing goodwill for impairment have the option of performing a qualitative assessment before calculating the fair value of the reporting unit. If entities determine, on the basis of qualitative factors, that the fair value of the reporting unit is more likely than not less than the carrying amount, the two-step impairment test would be required. This amendment does not change how goodwill is calculated or assigned to reporting units, nor does it revise the requirement to test goodwill annually for impairment. In addition, it does not amend the requirement to test goodwill for impairment between annual tests if events or circumstances warrant; however, it does revise the examples of events and circumstances that an entity should consider. We adopted this standard in the quarter ended June 30, 2012. The adoption of this standard did not have a material impact on our consolidated financial statements.

Critical Accounting Policies and Estimates

For the six months ended September 29, 2012, there were no significant changes to our critical accounting policies and estimates included in our Annual Report on Form 10-K for the fiscal year ended March 31, 2012, filed on May 25, 2012 except as noted below:

We value our inventory at the lower of cost or market. The determination of the lower of cost or market requires that we quantify the difference between the cost of inventory and its estimated market value and to make significant assumptions about our customers' future demand for products, the future demand by end-users of the material generated with our equipment and any future transitions we make to new product offerings from our legacy products. These assumptions include, but are not limited to, future manufacturing schedules, customer demand, supplier lead time and technological and market obsolescence. We estimate the excess and obsolescence of inventory based on factors such as inventory on hand, historical usage and forecasted demand based on backlog and other factors. Uncertainty about future economic conditions including, (i) tightening of credit in financial markets has resulted in reduced funding worldwide, including China (where many of our customers are located), and a higher level of uncertainty for solar cell, wafer and module manufacturers and manufacturers incorporating sapphire material into their products, (ii) ongoing trade disputes with China may adversely impact the businesses of our Chinese customers, and (iii) oversupply of, or limited demand for, polysilicon, solar panels and sapphire material, including LED quality material, makes it challenging for us to forecast demand for our products and our operating result. Our inventory balances have increased substantially recently and, if such inventory is unable to be deployed in our products sold to customers and becomes obsolete, we could be required to take a write down and the amount of such write down may be material.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Investment Risks

We maintain an investment portfolio which, at September 29, 2012, consisted of $200 million of money market mutual funds. At any time a rise in market interest rates could have an adverse impact on the fair value of our investment portfolio. Conversely, declines in market interest rates could have a material impact on the interest earnings of our investment portfolio. We do not currently hedge these interest rate exposures. We place our investments with high quality issuers and have investment policies limiting, among other things, the amount of credit exposure to any one issuer. We seek to limit default risk by purchasing only investment grade securities. Based on investment positions as of September 29, 2012, a hypothetical movement of plus or minus 50 basis points based on current market interest rates would not have a material impact to the value of our investment portfolio or the income earned in an annual period. We also have the ability to hold our investments until maturity, and therefore do not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We may elect to invest a significant amount of our cash in fixed income portfolios. As with most fixed income portfolios, the ones that we have invested in from time to time, or may elect to invest in, include overnight money market funds, government securities, certificates of deposit, commercial paper of companies and other highly-liquid securities that are believed to be low-risk. Certain money market funds in which we have invested, however, could hold positions in securities issued by both sovereign states and banks located in jurisdictions experiencing macroeconomic instability, some of which may not currently be considered low-risk. Certain sovereign states and banks located in these jurisdictions, have experienced severe disruptions lately, in part, from the belief that they may be unable to repay their debt, and the value of the securities issued by these institutions have experienced volatility. While we do not believe that we have any direct exposure to the riskiest securities, for example, we do not directly hold any securities issued by the governments of Greece, Spain, Portugal, France and Ireland, the funds that we may invest in may hold these securities. In addition, these money market funds could hold Euros or Euro-based securities. To the extent that volatility was to have a significant impact on the Euro, a portion of any cash held in money market accounts could lose its value. Further, if the financial upheavals were to spread to other sovereign states, such as the United Kingdom, our cash could also be at risk due to the fact that the funds in which we have placed our cash do invest directly in the securities issued by the sovereign states, corporations and banks in these jurisdictions.

Foreign Currency Risk

Although our reporting currency is the U.S. dollar and substantially all of our existing sales contracts are denominated in U.S. dollars, we incur costs denominated in other currencies. In addition, although we maintain our cash balances primarily in the U.S. dollar, from time to time, we maintain cash balances in currencies other than the U.S. dollar. As a result, we are subject to currency risk.

Our primary foreign currency exposure relates to fluctuations in foreign currency exchange rates, primarily the euro for certain inventory purchases from vendors located in Europe. Fluctuations in exchange rates could affect our gross and net profit margins and could result in foreign exchange and operating losses or gains due to such volatility. Changes in the customer's delivery schedules can affect related payments to our vendors which could cause fluctuations in the cash flows and when we expect to make payments when these cash flows are realized or settled.

Exchange rates between a number of currencies and U.S. dollars have fluctuated significantly over the last few years and future exchange rate fluctuations may occur.

We enter into forward foreign currency exchange contracts that qualify as cash flow hedges to hedge portions of certain of our anticipated foreign currency denominated inventory purchases. These contracts typically expire within 12 months. Consistent with the nature of the economic hedges provided by these forward foreign currency exchange contracts, increases or decreases in their fair values would be effectively offset by corresponding decreases or increases in the U.S. dollar value of our future foreign currency denominated inventory purchases (i.e., "hedged items"). The information provided below relates only to the hedging instruments and does not represent the corresponding changes in the underlying hedged items.

As of September 29, 2012, we had forward foreign currency exchange contracts with notional amounts of €25.6 million, all of which expire within twelve months. As of September 29, 2012, the fair value and carrying amount of our forward foreign currency exchange contracts was a net asset of less than $0.1 million and a net liability of $0.2 million.

Relative to our foreign currency exposures existing at September 29, 2012, a 10% appreciation (depreciation) of the Euro against the U.S. dollar would result in an increase (decrease) in the fair value of these derivative instruments of approximately $3.3 million.

Interest Rate Risk

Bank of America Credit Agreement

On January 31, 2012, we, our U.S. operating subsidiary and our Hong Kong subsidiary entered into the 2012 Credit Agreement, with Bank of America, N.A., as administrative agent, Swing Line Lender and L/C Issuer and the lenders from time to time party thereto, which was subsequently amended. For additional information on the 2012 Credit Agreement, see Note 12 to the notes to our condensed consolidated financial statements in Item 1 "Financial Statements" included elsewhere in this Quarterly Report on Form 10-Q.

As of September 29, 2012, there was $83.5 million and $25.0 million available for borrowing under the Hong Kong Revolving Facility and U.S. Revolving Facility, respectively.

If the LIBOR rate increases/decreases by 100 basis points from that in effect at September 29, 2012, our annual interest expense would correspondingly increase/decrease by approximately $1.4 million.

3.00% Convertible Senior Notes due 2017

On September 28, 2012, we issued $220 million aggregate principal amount of our 3.00% Convertible Senior Notes due 2017. The Notes will be issued under the indenture with U.S. Bank National Association, as trustee, dated September 28, 2012. For additional information on the Notes, see Note 12 to the notes to our condensed consolidated financial statements in Item 1 "Financial Statements" to this Quarterly Report on Form 10-Q.

The interest rate on the Notes is fixed at 3.0% per annum. The fair market value of the Notes is subject to interest rate risk and market risk due to the convertible feature of the Notes. Generally, the fair market value of fixed interest rate debt will increase as interest rates fall and decrease as interest rates rise. The fair market value of the Notes will also increase as the market price of our stock increases and decrease as the market price falls. The interest and market value changes affect the fair market value of the Notes but do not impact our financial position, cash flows or results of operations.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 29, 2012. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of September 29, 2012, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There have been no significant changes in our internal controls over financial reporting during the three months ended September 29, 2012 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

We are subject to various routine legal proceedings and claims incidental to our business, which our management believes will not have material effect on our financial position, results of operations or cash flows.

Item 1A. Risk Factors

Our business, operating results and cash flows can be impacted by a number of factors, any one of which could cause our actual results to vary materially from recent results or from our anticipated future results. You should carefully consider the risks described below and the other information in this Quarterly Report on Form 10-Q before deciding to invest in shares of our common stock. These are the risks and uncertainties we believe are most important for you to consider. Additional risks and uncertainties not presently known to us, which we currently deem immaterial or which are similar to those faced by other companies in our industry or business in general, may also impair our business operations. If any of the following risks or uncertainties actually occurs, our business, financial condition and operating results would likely suffer. In that event, the market price of our common stock could decline and an investor in our common stock could lose all or part of their investment.

Risks Related to Our Business Generally

Oversupply of, or limited demand for, polysilicon, solar panels and sapphire material, including LED quality material, may have an adverse impact on our business and, unless such oversupplies are reduced or demand increases in the near future due to development of new technologies or otherwise, the negative impact on our business could last for an extended period.

We principally sell equipment that is utilized in the manufacture of polysilicon (which is a key component to making solar wafers and cells), silicon ingots (which are, through various cutting and finishing processes, used to make solar cells and wafers) and sapphire boules (which are, through various cutting and finishing processes, used to make, among other things, LED wafers). Each of the polysilicon, solar wafer and cell and LED wafer market is currently experiencing significant oversupply and/or significant decreased demand. For example, our PV business experienced a 96% decrease in revenue for the six months ended September 29, 2012 as compared to the same period in the prior year. The consequence of this oversupply and decreased demand is that those who sell into these markets (many of whom are customers for our equipment) are either required to sell at very low prices (sometimes selling at a loss) or are unable to sell at all. Many customers are experiencing large increases in their inventories. As a consequence of these conditions, demand for our equipment, particularly our polysilicon reactors and DSS furnaces, has dropped significantly in the past few quarters. In addition, certain customers have requested that we delay delivery of equipment or reduce the number of equipment units they are required to purchase that is to be delivered under existing contracts (and we expect that we may receive similar requests in the future). This has had an adverse impact on our business and will continue to have such an effect, including requiring that we sell products at prices below what we usually charge or resulting in the absence of any meaningful new sales. If the existing inventories of polysilicon, solar cells/wafers and LED/sapphire materials are not reduced in the near future or demand increases, as a result of new solar or sapphire technologies that increase demand for end-products incorporating polysilicon, solar cells or sapphire material or due to other reasons, we expect that our business and results of operations will be significantly and materially impacted.

China has recently experienced decreased growth rates and certain of the solar and sapphire manufacturers in China, and in Asia generally, have been unwilling or unable to continue to invest in capital equipment purchases.

Recently, the rate of growth of the Chinese economy has decreased. Since Chinese companies, including solar and LED producers, ship their products to Europe, the decreased growth in China is due, in part we believe, to the economic situation in Europe. The negative impact of this reduced rate of growth is compounded by the fact that the solar industry, including solar and wafer cell manufacturers and polysilicon manufacturers, are confronting markets that are either experiencing decreased demand or are generating more capacity than the industry requires. These market conditions are making it difficult for these companies to generate adequate returns and many such companies are not making any capital investments in their operations, which results in much lower demand for our equipment products. For several years, Chinese solar manufacturers relied on easily available credit and increasing rates of investment. These companies utilized these financial resources to build up their manufacturing capacity. In fact, we believe that Chinese companies have incurred some of the highest levels of debt in the solar industry. Now, however, lenders to Chinese solar companies, in particular, are no longer extending credit on generous terms, or at all. Some of this debt is maturing and certain of these companies are unlikely to be able to make payments when due. In certain cases, local Chinese governments have had to extend credit to solar manufacturers. As a result, we expect that the demand for our products will continue to remain limited for the short-term amongst our Chinese customer base (which are among our largest customers). Also, it may be the case that customers with orders in our backlog are unable to accept delivery of our equipment or may re-negotiate terms, including requests for reduced prices and decreases in the number of units shipped. Any of the foregoing would have a negative impact on our business and results of operations. These circumstances are making competition among equipment suppliers to sell to a limited number of purchasers very competitive. As competition increases, it may be the case that our competitors engage in business practices that we will not engage in (or are legally prohibited from engaging in) in order to gain business, including providing incentives or benefits that would be prohibited under the U.S. Foreign Corrupt Practices Act.

General economic conditions may have an adverse impact on demand for our products.

Purchasing our products requires significant capital expenditures, and demand for such products is affected by general economic conditions. A downturn in the global construction market has reduced demand for solar panels in new residential and commercial buildings, which in turn reduces demand for our products that are used in the manufacture of PV wafers, cells and modules and polysilicon for the solar power industry (including our DSS units and SDR reactors). In addition, a downturn in the sapphire material market, and the sapphire-based LED and general illumination markets in particular, has resulted in reduced demand for our sapphire material and our ASF systems. Uncertainties about economic conditions, negative financial news, potential defaults by or rating downgrades of debt issued by governmental entities and corporate entities, tighter credit markets and declines in asset values have, in the recent past, caused our customers to postpone or cancel making purchases of capital equipment and materials. We believe that increasing governmental budgetary pressures will likely result in reduced, or the elimination of, government subsidies and economic incentives for on-grid solar electricity applications. A prolonged downturn in the global economy, combined with decreased governmental incentives for solar power usage, has had (and may continue to have) a material adverse effect on our business in a number of ways, including decreased demand for our products, which would result in lower sales, reduced backlog and contract terminations. Uncertainty about future economic conditions makes it challenging for us to: forecast demand for our products and our operating results, make business decisions and identify the risks that may affect our business. For example, our inventory balances have increased substantially recently and, if such inventory is unable to be deployed in our products sold to customers and becomes obsolete, we could be required to take a write down and the amount of such write down may be material. If we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, results of operations and financial condition may be materially and adversely affected.

Current or future credit and financial market conditions could materially and adversely affect our business and results of operations in several ways.

Financial markets in the United States, Europe and Asia experienced extreme disruption in recent years, including, among other things, extreme volatility in security prices, tightened liquidity and credit availability, rating downgrades of certain investments and declining valuations of others and increased bankruptcy filings by companies in a number of industries (including several companies in the solar industry). These economic developments adversely affect businesses such as ours in a number of ways. The tightening of credit in financial markets has resulted in reduced funding worldwide, including China (where many of our customers are located), and a higher level of uncertainty for solar cell, wafer and module manufacturers and manufacturers incorporating sapphire material into their products. As a result, some of our customers have been delayed in securing, or prevented from securing, funding adequate to honor their existing contracts with us or to enter into new contracts to purchase our products. We believe a reduction in the availability of funding for new manufacturing facilities and facility expansions in the solar and sapphire industries, or reduction in demand for solar panels or sapphire material, could cause a decrease in orders for our products.

We currently require most of our equipment customers to prepay a portion of the purchase price of their orders and to provide letters of credit prior to shipping equipment. We use these customer deposits to prepay our suppliers in order to reduce the need to borrow to cover our cash needs for working capital. This practice may not be sustainable if the recent market disruptions continue or grow worse. Some of our customers who have become financially distressed have failed to provide letters of credit or make payments in accordance with the terms of their existing contracts. If customers fail to post letters of credit or make payments, and we do not agree to revised contract terms, it could have a significant impact on our business, results of operations and financial condition. The impact of these disruptions are increasingly being felt in China, and by certain of our customers which are located in China and other countries in Asia, and accounts in part for the decline in our total revenue and order backlog as compared to the quarters ended October 1, 2011 and March 31, 2012. We may experience further revenue and backlog reductions in the future similar to or greater than those reductions we experienced in quarter ended September 29, 2012. Credit and financial market conditions may similarly affect our suppliers. We may lose advances we make to our suppliers in the event they become insolvent because our advances are not secured or backed by letters of credit. The inability of our suppliers to obtain credit to finance development or manufacture our products could result in delivery delays or prevent us from delivering our products to our customers.

Ongoing trade disputes with China may adversely impact the businesses of our Chinese customers, which could harm our business and our stock price.

Trade tensions between China and the U.S. have escalated. Most recently, in October 2012, the U.S. Commerce Department issued a final ruling and levied anti-dumping duties ranging from 18.32% to 249.96% on billions of dollars of solar panels and cells from China (and set countervailing duties from 14.78% to 15.97%). This final ruling will negatively impact our equipment customers in China. This follows a May 2012 Department of Commerce announcement of a preliminary determination that China had violated fair trade policies by dumping" into the U.S. certain solar products at prices that were intended to advantage Chinese manufacturers. The Chinese government responded by saying these actions were deliberately provoking trade friction between the two nations. In addition, Congress has considered legislation targeting China's currency practices, which would, among other things, impose trade sanctions against Chinese companies that ship finished goods into the U.S. at artificially low prices caused by Chinese currency manipulation. The Chinese government has indicated that passage of this legislation or similar actions could lead to retaliatory tariffs. In July 2012, the Chinese Ministry of Commerce opened investigations on imports of solar-grade polysilicon from the U.S. and South Korea that may result in trade duties on polysilicon imports from the U.S. and South Korean polysilicon manufacturers. In addition, the European Union has commenced an investigation into whether Chinese solar equipment manufacturers have dumped equipment into the E.U. in violation of trade regulations. If the E.U. imposes duties in connection with this investigation, it could harm our business since many of our Chinese customers sell into the E.U. While this risk may be mitigated to some extent if manufacturing of solar wafers and cells shifted from China to Europe (or locations in other parts of the globe) as there may be increased demand in Europe for polysilicon and PV equipment that cannot be satisfied from China at comparable prices, the E.U. may not allow Chinese companies to avoid the duties by transferring manufacturing operations to Europe. In response to the E.U. investigation, in November 2012, the Chinese Ministry of Commerce announced that it was commencing a trade investigation into European exports of solar-grade polysilicon. Retaliatory tariffs and trade tensions with China and the U.S. and Europe (as well as South Korea, where some of our equipment customers are located) is causing uncertainty in the industry and is having a material adverse impact on our business since we sell into China and our equipment customers sell end products into Europe and the U.S. Our business and results of operations would be negatively affected if further anti-dumping or other duties were imposed or a trade war was to occur with China. In addition, we expect that any further announcements about or imposition of duties by the U.S. government or E.U. on solar cells imported from China or relating to duties imposed on polysilicon manufacturers by the Chinese government could negatively impact our stock price and may have a material adverse effect on our business and results of operations.

If our customers delay or cancel equipment purchases, we may be required to modify or cancel contractual arrangements with our suppliers which may result in the loss of deposits or pre-paid advances, which losses have been significant in the past.

As a result of our customer delays or contract terminations, we reschedule or cancel, from time to time, purchase orders with our vendors to procure materials and, in certain cases, we are required to reimburse the vendor for costs incurred to the date of termination plus predetermined profits. We have, in prior fiscal years, recorded significant losses resulting from rescheduled and/or canceled commitments to our vendors as a result of customer delays, contract modifications and terminations. In addition, certain of the vendors from whom we purchased materials were unable to deliver the ordered components because economic conditions had an adverse impact on their ability to operate their businesses and we were unable to recover advances paid to those vendors for components that were not delivered and, in some cases, these lost advances were significant amounts. In cases where we are not able to cancel or modify vendor purchase orders due to customer delays or terminations, our purchase commitments may exceed our order backlog requirements and we may be unable to redeploy the undelivered equipment. In addition, we expect that we may be required to pay advances to vendors in the future without being able to recover that advance if the vendor is placed in bankruptcy, becomes insolvent or otherwise experiences financial distress.

Delays in deliveries, or cancellations of orders, for products of all of our segments could cause us to have inventories in excess of our short-term needs and may delay our ability to recognize, or prevent us from recognizing, revenue on contracts in our order backlog. Alternatively, we may be required to sell products below our historical selling prices, which was the case for our PV equipment sales in the quarter ended September 29, 2012. We have recently experienced significant increases in the amount of inventory that we hold in order to meet certain anticipated demands for our products including our ASF systems. Contract breaches or cancellation of orders may require us to reschedule and/or cancel additional commitments to vendors in the future and require that we write-down any inventory purchased that we are unable to deploy or require that we sell products at prices that are below our historical prices, which would also have a negative impact on our gross margins.

Amounts included in our order backlog may not result in actual revenue or translate into profits.

Our order backlog is primarily based on signed purchase orders or other written contractual commitments. We cannot guarantee that our order backlog will result in actual revenue in the originally anticipated period, or at all. For example, during the fiscal year ended March 31, 2012, our backlog was reduced by $135.9 million as a result of contract terminations that did not result in revenue. In addition, the contracts included in our order backlog may not generate margins equal to our historical operating margins. Our customers may experience project delays or default on the terms of their contracts with us as a result of external market factors and economic or other factors beyond our or their control. If a customer fails to perform its contractual obligations and we do not reasonably expect such customer to perform its obligations, we may terminate the contract, which would result in a decrease in our backlog. In addition, our backlog is at risk to varying degrees to the extent customers request that we extend the delivery schedules and make other modifications under their contracts in our order backlog. Any contract modifications that we negotiate could likely include an extension of delivery dates, and could result in lower pricing or in a reduction in the number of units deliverable under the contract, thereby reducing our order backlog and not resulting in lesser (or no) revenue recognized from such contracts. Our order backlog includes contracts with customers to whom we have sent notices of breach for failure to provide letters of credit or to make payments when due. If we cannot come to an agreement with these customers, it could result in a further reduction of our order backlog. Other customers with contracts, however, may approach us with requests for delays in the future, or may fail to make payments when due, which could further reduce our order backlog. If our order backlog fails to result in revenue in a timely manner, or at all, we could experience a reduction in revenue, profitability and liquidity.

We intend to pursue business and technology acquisition and investment opportunities in the future as part of our business plan to grow and diversify our business and we expect that one or more of these acquisitions or investments will expand our product offerings into markets we have not previously served.

Our business plan is focused on growing and diversifying our product and technology offerings. Acquiring Crystal Systems, a sapphire manufacturer, was part of this business plan to extend our offerings beyond polysilicon and PV markets. We expect that achieving these goals of growth and diversification will include the acquisition of businesses and technologies from third parties or investments in third parties (that may lead to future acquisitions or rights to technology) and expect that in the future we will continue to engage in negotiations for such acquisitions, investments or joint venture arrangements. In order to achieve our objective of diversifying our business to technologies outside of polysilicon, photovoltaic and sapphire, we expect that some of these acquisitions will be in markets or industries that may be unrelated to those markets we currently serve. We are, however, an equipment company and we currently expect that future acquisitions will continue to be for the purpose of accessing technologies that will enable us to provide equipment to our customers. This business diversification plan involves risks. Our stock may be valued differently depending on what markets we serve in the future. Diversification may also require significant time and resource commitments from our senior management, which will limit the amount of time these individuals will have available to devote to our existing operations. This diversification may also involve the complexities in managing an employee base that is already located in several different locations and in effectively deploying, operating and utilizing our internal systems, including those related to financial reporting, and other systems we depend on.

We may also have very little experience in dealing with these new markets and products. Any failure or any inability to effectively manage and integrate the growth and diversification could have a material adverse effect on our business, financial condition and results of operations. In addition, any amounts that we invest may not generate any returns for us and we could lose the entire amount of the investment.

Finally, we may not be successful in acquiring any new businesses or technologies, despite our efforts to do so, and there can be no certainty that we will acquire any other companies or technologies that allow us to diversify. If we do not close acquisitions in accordance with our business plan or make successful investments, we may not be able to diversify revenue and our performance will be tied directly to the PV and sapphire markets, and if one or both experience difficulties, our business, financial condition and results of operations would be negatively impacted.

We face competition in each of our business segments, and if our competitors are able to manufacture products that employ newer technologies or are otherwise more widely used than our products, and if we are unable to modify our products to adapt to such future changes, we may be unable to attract or retain customers.

The PV energy and sapphire industries are both highly competitive and continually evolving as participants strive to increase their market share and new entrants strive to capture market share. In addition, the PV energy industry (which includes polysilicon and solar wafer and cell manufacturers) also has to compete with the larger conventional electric power industry. The PV and sapphire industries are also rapidly evolving and are highly competitive. Particularly with respect to the solar cell industry, new technologies are leading to rapid improvements in cell efficiencies and performance. Technological advances are, we believe, also resulting in lower manufacturing costs for these products. These developments may render existing products and/or product manufacturing equipment of our PV and sapphire businesses obsolete. We will therefore need to keep pace with technological advances in these industries in order to compete effectively in the future, which may require significant expenditures on research and development or investments in acquisition of other businesses and technologies. For example, our success in (i) the sapphire market depends on our ability to expand into new applications that are based on continued advancement in the design and manufacture of sapphire and LEDs (including sapphire and non-sapphire-based LEDs) and lighting technology by others, as well as the continued demand for sapphire in the LED market (while we believe sapphire is currently one of the preferred substrate materials for certain LED applications, which is the market we believe many of our ASF customers sell into, the use of silicon substrates and substrates incorporating other materials in LED applications is currently developing) and (ii) in the PV market will depend to a large extent in our success in commercializing our monocrystallization technology offerings. Our failure to further refine our technologies and/or develop and introduce new solar power and sapphire products could cause our products to become uncompetitive or obsolete, which could adversely affect demand for our products, and our financial condition, results of operations, business and/or prospects. Many of our competitors, in each of our business segments, have, and future competitors may also have, substantially greater financial, technical, manufacturing and other resources than we do. These resources may provide our competitors with an advantage because they can realize economies of scale, synergies and purchase certain raw materials, commodities and key components at lower prices. Current and potential competitors of ours may also have greater brand name recognition, more established distribution networks and larger customer bases, and may be able to devote more resources to the research, development, promotion and sale of their products or to respond more quickly to evolving industry standards and changes in market conditions. In addition, given the ability of other parties to access our equipment, we also face low-cost competitors who may be able to offer similar products at very competitive prices.

We may not be able to maintain our current share of the market in our respective business segments as competitive intensity increases and particularly as our customers are targeted by local low-cost competitors in China and other countries. We believe that certain PV customers have already begun purchasing our competitors' equipment and installing them in their facilities. Our efforts to capitalize on technological developments in the markets in which we operate, such as the HiCz (which is in development) and MonoCast growth technology, may not result in increased market share and require that we make substantial capital investments without any corresponding increase in revenues. In addition, customers may place orders to supply equipment for new facilities or future expansions with our competitors, and we believe the likelihood that our customers and others will go to competitors has increased over time. Our failure to adapt to changing market conditions and to compete successfully with existing or new competitors and/or new technological developments may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

In relation to our polysilicon business, we are not the only provider of polysilicon production equipment to the market based on a Siemens-type CVD reactor design. Although we believe our SDR reactor to be re-designed and distinct from the competing products offered by our competitors, there can be no assurance that our SDR reactor will compete successfully with their products which would have a material adverse effect on our financial condition, results of operations, business and or prospects. In addition, alternative technologies for producing polysilicon exist and, to the extent that they become more widely available, the demand for our SDR reactor may also be adversely effected. Furthermore, we believe that companies that currently produce polysilicon for their own internal use and consumption compete indirectly with our polysilicon business, as any increase in the supply of polysilicon may have an adverse effect of the demand for our SDR reactor.

We currently depend on a small number of customers in any given fiscal year for a substantial part of our sales and revenue.

In each fiscal year, we depend on a small number of customers for a substantial part of our sales and revenue. For example, in the six months ended September 29, 2012, three customers accounted for 73% of our revenue and in the fiscal year ended March 31, 2012, one customer accounted for 23% of our revenue. In addition, as of September 29, 2012, we had a $1.5 billion order backlog of which $0.9 billion was attributable to three customers. The failure of our major customers to make any payments, the loss of existing orders or lack of new orders in the future, or a change in the product acceptance schedule by such customers could significantly reduce our revenues and have a material adverse effect on our financial condition, results of operations, business and/or prospects. While we have sought to diversify our business and customer base, we anticipate that our dependence on a limited number of customers will continue for the foreseeable future. There is a risk that existing customers will elect not to do business with us in the future, particularly as we face increased competition in each of our business segments, and/or that these customers will experience financial difficulties. Furthermore, due to the cost of our products, our customers are often dependent on the equity capital markets and debt markets to finance their purchases. As a result of on-going turmoil in the capital and debt markets, these customers could experience financial difficulties and become unable to fulfill their contracts with us. There is also a risk that these customers will attempt to impose new or additional requirements on us that reduce the gross margins that we are able to generate through sales to such customers. If we do not develop relationships with new customers, we may not be able to increase, or even maintain, our revenue, and our financial condition, results of operations, business and/or prospects may be materially adversely affected.

Our success depends on the sale of a limited number of products.

A significant portion of our operating profits has historically been derived from sales of DSS units, SDR reactors, STC converters, hydrochlorination equipment and ASF units, which sales accounted for 90% and 88% of our revenue for the three and six months ended September 29, 2012. There can be no assurance that sales of this equipment will increase beyond, or be maintained at, past levels or that any sales of sapphire materials or HiCz materials (or any other future product offering, such as our recently commercialized DSS MonoCast technology) will offset any decrease in sales of DSS multicrystalline units, ASF systems or SDR reactors (or result in any revenue). Additionally, we have already experienced decreased demand for some products, sales of our STC converters and DSS multicrystalline furnaces are substantially lower than in prior periods due to changes in technology and decreased demand, and further changes in technology will also, we expect, result in a further reduction in demand and decreased average selling prices for our DSS multicrystalline furnace. Factors affecting the level of future sales of our products include factors beyond our control, including, but not limited to, demand for solar products and sapphire material (including sapphire-based LED material and sapphire use in general illumination), development and/or use of alternatives to sapphire in LED applications (including in general illumination) and competing product offerings by other equipment manufacturers. We may be unable to diversify our product offerings and thereby increase or maintain our revenue and/or maintain our profits in the event of a decline in DSS units, ASF systems and SDR reactors sales.

If sales of our PV, polysilicon or sapphire products decline for any reason, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

We depend on a limited number of third party suppliers.

We use certain component parts supplied by a small number of third party suppliers in our polysilicon, PV and sapphire equipment products and ancillary equipment, and certain of these components are critical to the manufacture and operation of certain of our products. For example, we use specialist manufacturers to provide vessels and power supplies which are essential to the manufacture and operation of our polysilicon products. In addition, certain of our products consist entirely of parts and components supplied by third party suppliers, and in these instances filling orders depends entirely upon parties over which we exercise little or no control, and if these contractors were unable to supply, or refused to supply, the parts and components, we would be unable to complete orders which would have a negative impact on our reputation and our business.

Our materials businesses, as well as the customers for our ASF units, also depend on suppliers of raw materials and components that are utilized during the manufacturing process. For example, the supply of qualified meltstock and crucibles used to grow sapphire materials is limited and we expect demand will increase as we sell more ASF units, and as a result, there may be an insufficient availability of these items for our sapphire materials business and sapphire research and development as currently operated or available for the purchasers of our ASF systems, which would prevent us from growing our sapphire equipment business. Similar shortages may arise for our HiCz materials business if and when we commercialize a HiCz equipment offering. Further, our agreements with raw material and equipment component suppliers are typically short term in nature, which leaves us vulnerable to the risk that our suppliers may change the terms on which they have previously supplied products to us or cease supplying products to us at any time and for any reason.

There is no guarantee that we will maintain relationships with our existing suppliers or develop new relationships with other suppliers. We are also dependent on our suppliers to maintain the quality of the components and equipment we use and the increased demands placed on these suppliers if we grow our business may result in quality control problems. We may be unable to identify replacement or additional suppliers or qualify their products in a timely manner and on commercially reasonable terms, or at all. Component parts supplied by new suppliers may also be less suited to our products than the component parts supplied by our existing suppliers. Certain of the component parts used in our products have been developed, made or adapted specifically for us. Such parts are not generally available from other vendors and could be difficult or impossible to obtain elsewhere. As a result, there may be a significant time lag in securing an alternative source of supply. In addition, the inability of our suppliers to support our demand could be indicative of a marketwide scarcity of the materials, which could result in even longer interruptions in our ability to supply our products.

We utilize raw materials in manufacturing our materials and equipment and the prices for these materials fluctuate significantly and any increases in price or decrease in availability will harm our business.

In the ordinary course of business, we are exposed to market risk from fluctuations in the price of raw materials and commodities necessary in the manufacture of our products, such as graphite, steel, copper, helium and molybdenum. We experience similar commodity risks in connection with the consumable materials utilized in our products, and in certain cases, there is very limited access to these commodities. The increase in the price of these commodities, due to further limitations of availability or to greater demand, will make our products less attractive and will harm our material and equipment business. If we bring more entrants into these markets, these commodity risks increase. Any significant increase in these prices would increase our expenses, decrease demand for our products and hurt our profitability. In addition, demand for our products will be negatively impacted if the raw materials that are used to create polysilicon, PV materials and sapphire were to increase.

Our failure to obtain sufficient raw materials, commodities, component parts for our equipment and/or third party equipment that meet our requirements in a timely manner and on commercially reasonable terms could interrupt or impair our ability to assemble our products, and may adversely impact our plans to expand and grow our business, as well as result in a loss of market share. Further, such failure may prevent us from delivering our products as required by the terms of our contracts with our customers, and may harm our reputation and result in breach of contract and other claims being brought against us by our customers. Any changes to our current supply arrangements, whether to the terms of supply from existing suppliers or a change in our suppliers, may also increase our costs in a material amount.

The prices for polysilicon and sapphire material, as well as silicon ingots, have, in the past, dropped as a result of either increased supply or decreased demand, and, at the same time, the prices for the inputs to create this output has either

remained consistent or increased, which has resulted in decreased margins for polysilicon and sapphire and PV manufacturers, and if these circumstances were to continue or dampen the demand for our PV, polysilicon and sapphire equipment business would be negatively impacted.

The prices for polysilicon, sapphire and PV materials have decreased recently due, in part, to either excess supply or decreasing demand for these materials. Concurrently with these price drops, the costs for the consumable materials that are used in our equipment to make polysilicon, sapphire boules and PV ingots and wafers have either remained steady or, in some cases, increased. These two factors, operating in tandem, result in decreased margins for the manufacturers selling polysilicon, sapphire boules and PV ingots and wafers, and, depending on circumstances, could result in negative margins. If this situation were to persist, we would expect that the demand for our polysilicon reactors, ASF units and DSS furnaces (including our newly commercialized DSS MonoCast 450) would drop and may hamper the adoption of any new technologies we introduce (including our proposed HiCz equipment offering, which is still currently in development). The on-going global economic uncertainty and tightened credit markets may exacerbate these circumstances.

We may face product liability claims and/or claims in relation to third party equipment.

It is possible that our products could result in property damage and/or personal injury, whether by product malfunctions, defects, improper use or installation or other causes. We cannot predict whether or not product liability claims will be brought against us or the effect of any resulting negative publicity on our business, which may include loss of existing customers, failure to attract new customer and a decline in sales. The successful assertion of product liability claims against us could result in potentially significant monetary damages being payable by us, and we may not have adequate resources to satisfy any judgment against us. Furthermore, it may be difficult or impossible to determine whether any damage or injury was due to product malfunction, operator error, failure of the product to be operated and maintained in accordance with our specifications or the failure of the facility in which our products are used to comply with the facility specifications provided to our customers or other factors beyond our control. For example, one of our significant customers experienced chamber leakage involving a number of DSS units in its facilities which we believe was the result of their facility failing to conform to specifications. We nonetheless agreed to replace certain chambers at our cost. Other customers may experience similar issues in the future as a result of product defects, facilities not complying with specifications or other reasons. To date, we have not received any product liability or other claims with respect to these or any other accidents.

In addition, we have provided third party equipment in connection with our product sales. There can be no guarantee that such third party equipment will function in accordance with our intended or specified purpose or that the customer's personnel, in particular those who are inexperienced in the use of the specialized equipment sold by us, will be able to correctly install and operate it, which may result in the return of products and/or claims by the customer against us. In the event of a claim against us due to third party equipment, we may be unable to recover all or any of our loss from the third party equipment or component provider. The bringing of any product liability claims against us, whether ultimately successful or not, could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Our future success depends on our management team and on our ability to attract and retain key technical employees and to integrate new employees into our management team successfully.

We are dependent on the services of our management team and our technical personnel. Although certain members of our management team are subject to agreements with us, any and all of them may choose to terminate their employment with us on thirty or fewer days' notice. The loss of any member of the management team could have a material adverse effect on our financial condition, results of operations, business and/or prospects. There is a risk that we will not be able to retain or replace these or other key employees. Integrating new employees into our management team could prove disruptive to our daily operations, require a disproportionate amount of resources and management attention and ultimately prove unsuccessful. In addition, we are implementing our succession planning measures for our management and key staff or skilled employees. However, if we fail to successfully implement these succession plans for management and key staff when necessary, our operating results would likely be harmed.

We also depend on our technical personnel to grow our business. Recruiting and retaining capable personnel, particularly those with expertise in the polysilicon, PV and the sapphire industry, is vital to our success. There is substantial competition for qualified technical personnel, and qualified personnel are currently, and for the foreseeable future are likely to remain, a limited resource. Locating candidates with the appropriate qualifications can be costly, time-consuming and difficult. There can be no assurance that we will be able to attract new, or retain existing, technical personnel. We may need to provide higher compensation or increased training to our personnel. If we are unable to attract and retain qualified personnel, or are required to change the terms on which our personnel are employed, our financial condition, results of operations, business and/or prospects may be materially adversely affected.

New technologies we deploy may not gain market acceptance which could result in decreased cash resources and harm our results of operations.

We have expended significant financial resources and technical expertise in developing new products and services that we expect will improve our product portfolio and result in increased revenues. These investments, however, may not result in increased revenues and may require that we incur expenses that result in decreasing our cash balances. For example, we have already spent approximately $60 million (and may spend additional amounts in contingent payments and additional significant capital spending) in connection with our acquisition of Confluence Solar, which we ultimately expect will result in a PV equipment offering, or HiCz , that is to be designed to produce high efficiency monocrystalline solar ingots, and which is expected to lower PV production costs. In addition, we have invested significant amounts in our internal research and development efforts on our DSS MonoCast growth technology. We expect that HiCz equipment, which is still in development, will, over an extended period of time, supersede our MonoCast offerings. Both our MonoCast and HiCz offerings will be targeted at improving the ingot performance compared to that of multicrystalline silicon materials. If we are successful in commercializing these monocrystalline product lines, we expect that it will result in decreased sales of our multicrystalline products, including the DSS 650, which are currently less expensive but do not generate solar cells offering comparable efficiencies. We are also in the process of developing a silicon carbide equipment tool, but that is still in the early stages of development, and we are expending resources in that development effort. If we are not successful in commercializing these newer product lines, we would lose the significant investments we made in our internal development efforts and in the Confluence Solar acquisition.

We also have no experience in manufacturing and selling HiCz equipment and silicon carbide manufacturing equipment, and we may be unable to commercialize these products or ensure they gain wide-spread market acceptance. We also have very limited experience in installing and operating DSS MonoCast equipment, which is critical to recognizing any revenue on the sales of this product. If we are unable to bring any of these products to market and generate substantial sales, we may be unable to recover any or all of the investments we have made in them. Given the pace of technological advancements in the PV equipment industry, it is possible that monocrystalline production may not gain meaningful market share as other companies develop products that generate solar cells offering even higher efficiency. Alternatively, there are competing monocrystalline production techniques that may result in a more efficient solar wafer and/or equipment that can make comparable quality silicon at equipment prices below what we charge or at which our equipment makes ingots. We face similar challenges and competition with respect to any silicon carbide equipment product we may bring to market. Any of the foregoing would have a significant and negative impact on our business and results of operation.

We may be unable to protect our intellectual property adequately and may face litigation to enforce our intellectual property rights.

Our ability to compete effectively against our competitors in the PV, polysilicon and sapphire markets will depend, in part, on our ability to protect our current and future proprietary technologies, product designs, product uses and manufacturing processes under relevant intellectual property laws including, but not limited, to laws relating to patents and trade secrets. We own various patents and patent applications in the United States and other countries relating to our products, product uses and manufacturing processes. To the extent that we rely on patent protection, our patents may provide only limited protection for our technology and may not be sufficient to provide competitive advantages to us. For example, competitors could develop similar or more advantageous technologies or design around our patents or otherwise employ alternative products, equipment or processes that may successfully compete with our products and technology. In addition, patents are of limited duration. Any issued patents may also be challenged, invalidated or declared unenforceable. If our patents are challenged, invalidated or declared unenforceable, other companies will be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. Further, we may not have, or be able to obtain, effective patent protection in all of our key sales territories. Our patent applications may not result in issued patents and, even if they do result in issued patents, the patents may not include rights of the scope that we seek. The patent position of technology-oriented companies, including ours, is uncertain and involves complex legal and factual considerations. Accordingly, we do not know what degree of protection we will obtain from our proprietary rights or the breadth of the claims allowed in patents issued to us or to others. Further, given the costs of obtaining patent protection, we may choose not to protect certain innovations that later turn out to be important to our business.

Third parties may infringe, misappropriate or otherwise violate our proprietary technologies, product designs, manufacturing processes and our intellectual property rights therein, which could have a material adverse effect on our financial condition, results of operations, business and/or prospects. For example, we have filed a lawsuit in the Hillsborough County Superior Court (Southern District) in New Hampshire against Advanced Renewable Energy Company, LLC (ARC"), Kedar Gupta, its Chief Executive Officer and Chandra Khattak, an ARC employee, for the misappropriation of trade secrets relating to sapphire crystallization processes and equipment. Because the laws and enforcement mechanisms of various countries that we seek protection in may not allow us to adequately protect our intellectual property rights, the strength of our intellectual property rights will vary from country to country. Litigation to prevent, or seek compensation for such infringement, misappropriation or other violation, such as the ARC lawsuit described above, may be costly and may divert management attention and other resources away from our business without any guarantee of success.

Further, we conduct significant amounts of business in China, yet enforcement of Chinese intellectual property related laws (including trade secrets) has historically been weak, primarily because of ambiguities in Chinese laws and difficulties in enforcement. Accordingly, the intellectual property rights and confidentiality protections available to us in China may not be as effective as in the United States or other countries.

We also rely upon proprietary manufacturing expertise, continuing technological innovation and other know-how or trade secrets to develop and maintain our competitive position. While we generally enter into confidentiality and non-disclosure agreements with our employees and third parties to protect our intellectual property, such confidentiality and non-disclosure agreements could be breached and are limited, in some instances, in duration and may not provide meaningful protection for the trade secrets or proprietary manufacturing expertise that we hold. We have had in the past and may continue to have certain of our employees terminate their employment with us to work for one of our customers or competitors. Adequate or timely remedies may not be available in the event of misappropriation, unauthorized use or disclosure of our manufacturing expertise, technological innovations and trade secrets. In addition, others may obtain knowledge of our manufacturing expertise, technological innovations and trade secrets through independent development or other legal means and, in such cases, we may not be able to assert any trade secret rights against such a party.

We may face claims in relation to the infringement or misappropriation of third-party intellectual property rights.

We may be subject to claims that our products, processes or product uses infringe the intellectual property rights of others. These claims, even if meritless, could be expensive and time consuming to defend. In addition, if we are not successful in our defense of such claims, we could be subject to injunctions and/or damages, or be required to enter into licensing arrangements requiring royalty payments and/or use restrictions. In some instances, licensing arrangements may not be available to us or, if available, may not be available on acceptable terms. Due to the competitive nature of the industries in which we participate, we may face potential claims by third parties of infringement, misappropriation or other violation of such third parties' intellectual property rights. From time to time we have received and may in the future receive notices or inquiries from other companies suggesting that we may be infringing their patents or misappropriating their intellectual property rights. Such notices or inquiries may, among other things, threaten litigation against us. Furthermore, the issuance of a patent to us does not guarantee that we have the right to practice the patented invention. Third parties may have blocking patents that could be used to prevent us from marketing our own patented product and practicing our own patented technology. In addition, third parties could allege that our products and processes make use of their unpatented proprietary manufacturing expertise and/or trade secrets, whether in breach of confidentiality and non-disclosure agreements or otherwise. If an action for infringement, misappropriation, or other violation of third party rights were successfully brought against us, we may be required to cease our activities on an interim or permanent basis and could be ordered to pay compensation, which could have a material adverse effect on our financial condition, results of operations, business and/or prospects. Additionally, if we are found to have willfully infringed certain intellectual property rights of another party, we may be subject to treble damages and/or be required to pay the other party's attorney's fees. Alternatively, we may need to seek to obtain a license of the third party's intellectual property rights or trade secrets, which may not be available, whether on reasonable terms or at all, and such technology may be licensed to other parties thereby limiting any competitive advantage to us. In addition, any litigation required to defend such claims brought by third parties may be costly and may divert management attention and other resources away from our business, without any guarantee of success. Moreover, we may also not have adequate resources to devote to our business in the event of a successful claim against us.

From time to time, we hire personnel who have obligations to preserve the secrecy of confidential information and/or trade secrets of their former employers. Some former employers monitor compliance with these obligations. While we have policies and procedures in place that are intended to guard against the risk of breach by our employees of confidentiality obligations to their former employers, there can be no assurance that a former employer of one or more of our employees will not allege a breach and seek compensation for alleged damages. If such a former employer were to successfully bring such a claim, our know-how and/or skills base could be restricted and our ability to produce certain products and/or to continue certain business activities could be affected, to the detriment of our financial condition, results of operations, business and/or prospects.

The international nature of our business subjects us to a number of risks, including unfavorable political, regulatory, labor and tax conditions in foreign countries.

A substantial majority of our marketing and distribution takes place outside the United States, primarily in China, and substantially all of our sales are to customers outside the United States. We also have contracts with customers in Europe and expect to recognize revenue from sales to customers in Asia and Europe in the future. In addition, we have transitioned our global operations center to Hong Kong, further increasing our exposure to the risks of operating in Asia. As a result, we are subject to the legal, political, social and regulatory requirements and economic conditions of many jurisdictions other than the United States. Risks inherent to maintaining international operations, include, but are not limited to, the following:

- trade disputes between countries in which our customers manufacture and sell end-products, including their sales of solar wafers, cells and modules, and sapphire materials produced with our furnaces or reactors, which could result in government or trade organization actions that have the effect of increasing the price for our and our customers' products which would have a corresponding decrease in the demand for our products;

- withholding taxes or other taxes on our foreign income, tariffs or other restrictions on foreign trade and investment, including currency exchange controls imposed by or in other countries;

- the inability to obtain, maintain or enforce intellectual property rights in other jurisdictions, at a reasonable cost or at all;

- difficulty with staffing and managing widespread and growing international operations;

- complying with regulatory and legal requirements in the jurisdictions in which we operate and sell products;

- effectively operating and maintaining our internal controls and financial reporting processes across multiple countries;

- trade barriers such as export requirements, tariffs, taxes and other restrictions and expenses, which could increase the prices of our products and make our product offering less competitive in some countries; and

- establishing ourselves and becoming tax resident in foreign jurisdictions.

Our business in foreign markets requires us to respond to rapid changes in market conditions in these countries. Our overall success as a global business depends, in part, on our ability to succeed under differing legal, regulatory, economic, social and political conditions. There can be no assurance that we will be able to develop, implement and maintain policies and strategies that will be effective in each location where we do business. As a result of any of the foregoing factors, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

We are a global corporation with significant operations in Asia, and challenges by various tax authorities to our global operations could, if successful, increase our effective tax rate and adversely affect our earnings.

We are a Delaware corporation that operates through various affiliates and subsidiaries in a number of countries throughout the world, including in Asia. We established our global operations center in Hong Kong and our operations in Asia have grown significantly. Our income taxes are based upon the applicable tax laws, treaties, and regulations in the many countries in which we operate and earn income as well as upon our operating structures in these countries. While we believe that we carefully analyze and account for the tax risks and uncertainties under the applicable rules, multiple tax authorities could contend that a greater portion of our and our affiliates' income should be subject to income or other tax in their respective jurisdictions. If successful, these challenges could result in an increase to our effective tax rate. In addition, if we continue to generate revenue in higher tax jurisdictions, as was the case during the six month period ended September 29, 2012, our effective tax rate may continue to increase.

We continue to monitor the impact of various international tax proposals and interpretations of the tax laws and treaties in the countries where we operate, including those in the United States, China, Hong Kong, and other countries. If enacted, certain changes in tax laws, treaties, regulations, or their interpretation could result in a higher tax rate on our earnings, which could result in a significant negative impact on our earnings and cash flow from operations.

Compliance with the legal systems of the countries in which we offer and sell our products could increase our cost of doing business.

We offer and sell our products internationally, including in some emerging markets. As a result, we are and/or may become subject to the laws, regulations and legal systems of the various jurisdictions in which we carry on business and/or in which our customers or suppliers are located. Among the laws and regulations applicable to our business are health and safety and environmental regulations, which vary from country to country and from time to time. We must therefore design our products and ensure their manufacture so as to comply with all applicable standards. Compliance with legal and regulatory requirements, including any change in existing legal and regulatory requirements, may cause us to incur costs and may be difficult, impractical or impossible. In addition, China's legal system, where we do a significant amount of business, is rapidly evolving and, as a result, the interpretation and enforcement of many laws (including intellectual property laws), regulations and rules are not always uniform and legal proceedings in China often involve uncertainties and legal protections afforded are uncertain and may be limited. In addition, any litigation brought by or against us in China may be protracted and may result in substantial costs and diversion of resources and management attention and the anticipated outcome would be highly uncertain. Accordingly, foreign laws and regulations which are applicable to us may have a material adverse effect on our financial condition, results of operations, business and/or prospects. As a result of the procedural requirements or laws of the foreign jurisdictions in which we carry on business and/or in which our customers or suppliers are located, we may experience difficulty in enforcing supplier or customer agreements or certain provisions thereof, including, for example, the limitations on the product warranty we typically include in our customer contracts. In some jurisdictions, enforcement of our rights may not be commercially practical in light of the duration, cost and unpredictability of such jurisdiction's legal system. Any inability by us to enforce, or any difficulties experienced by us in enforcing, our contractual rights in foreign jurisdictions may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

We are subject to export restrictions and laws affecting trade and investments, and the future sale of our products may be further limited or prohibited in the future by a government agency or authority.

As a global company headquartered in the United States, our products and services are subject to U.S. laws and regulations that may limit and/or restrict the export (and re-export from other countries) of some of our products, services and related product and technical information, as well as laws of those foreign jurisdictions to which we sell or from which we re-export our products. Compliance with these laws and regulations could significantly limit our operations and our sales in the future and failure to comply could result in a range of penalties, including restrictions on exports of all of our products for a specified time period, or forever, and severe monetary penalties. In certain circumstances, these restrictions may affect our ability to interact with our foreign subsidiaries and otherwise limit our trade with third parties (including vendors and customers) operating inside and outside the U.S. In addition, as we introduce new products, we may need to obtain licenses or approvals from the US and other governments to ship them into foreign countries. Failure to receive the appropriate approvals may mean that our development efforts (and expenses related to such development) may not result in any revenue, particularly as most of our customers are located in foreign jurisdictions. This would have a material and adverse impact on our business and our development efforts.

In addition, certain customers of our sapphire materials business operate in the defense sector or are subcontractors of companies in the defense industry, and our products may be incorporated in, among other things, missiles, military aircraft and aerospace systems. In addition, Crystal Systems has received funding from the U.S. government in connection with certain research work for certain U.S. government agencies. Certain work performed pursuant to certain of these contracts is not commercially available, but we may make it available commercially in the future. The State Department, the Commerce Department or other government agencies may, however, determine that our sapphire material or other products, including our ASF systems, PV furnaces and/or polysilicon reactors, are important to the military potential of the U.S. If so, we may be subject to more stringent export licensing requirements or prohibited from selling certain of our sapphire materials for certain applications (or end uses), ASF systems, PV furnaces and/or polysilicon reactors to any customer outside the U.S. or to customers in certain jurisdictions. The U.S. government has, and will likely continue to, vigorously enforce these laws in light of continuing security concerns. If the export or sale of any of our current or future products outside the U.S. are limited or restricted by the U.S. government or any foreign government, our operations and results of operations would be negatively impacted.

We face particular market, commercial, jurisdictional and legal risks associated with our business in China.

We have had significant sales in China, accounting for 13% and18% of our revenue in the three and six months ended September 29, 2012, 52% of our revenue in the fiscal year ended March 31, 2012 and 71% of our revenue in the fiscal year ended April 2, 2011. Further, we have significant facilities and operations in China. Accordingly, our financial condition, results of operations, business and/or prospects could be materially adversely affected by economic, political and legal conditions or developments in China. Examples of economic and political developments that could adversely affect us include government control over capital investments or changes in tax regulations that are applicable to us. In addition, a substantial portion of the productive assets in China remain government owned. The Chinese government also exercises significant control over Chinese economic growth through the allocation of resources, controlling payment of foreign currency denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. Any factors that result in slower growth in China (growth in China does appear to be slowing) could result in decreased capital expenditures by solar and sapphire product manufacturers, which in turn could reduce demand for our products. Additionally, China has historically adopted laws, regulations and policies which impose additional restrictions on the ability of foreign companies to conduct business in China or otherwise place them at a competitive disadvantage in relation to domestic companies. Any adverse change in economic conditions or government policies in China could have a material adverse effect on our overall growth and therefore have an adverse effect on our financial condition, results of operations, business or prospects.

We have expanded, and may continue to expand, our presence in China, including in the areas of customer service, certain manufacturing services, administrative functions, sales and research and development. As we adopt a greater presence in China, we are increasingly exposed to the economic, political and legal conditions and developments in China, which could further exacerbate these risks, including the risk that we may not be able to obtain adequate legal protection in connection with any technological developments resulting from our research and development conducted in China.

We have entered into and may enter into or seek to enter into business combinations and acquisitions that may be difficult to integrate, disrupt our business, expose us to litigation or unknown liabilities, dilute stockholder value and divert management attention.

We may enter into business combinations or purchases. For example, we acquired Confluence Solar in 2011 and Crystal Systems in 2010. Acquisitions and combinations are accompanied by a number of risks, including the difficulty of integrating the operations and personnel of the acquired company, disruption of our ongoing business, distraction of management, expenses related to the acquisition and potential unknown liabilities and claims associated with acquired businesses. We may be subject to (i) liability for activities of the acquired company prior to the acquisition, including environmental and tax and other known and unknown liabilities and (ii) litigation or other claims in connection with the acquired company, including claims brought by terminated employees, customers, former stockholders or other third parties.

In addition, there may, in particular, be risks and uncertainties in connection with the intellectual property rights and ownership of technology of an acquired company, including (i) the nature, extent and value of the intellectual property and technology assets of an acquired company, (ii) the rights that an acquired company has to utilize intellectual property and technology that it claims to have developed or to have licensed, and (iii) actions by third parties against the acquired company for intellectual property and technology infringement and the extent of the potential loss relating thereto. Third parties may also be more likely to assert claims against the acquired company, including claims for breach of intellectual property rights, once the company has been acquired by us.

Any inability to integrate completed acquisitions or combinations in an efficient and timely manner or the inability to properly assess and utilize the intellectual property and technology portfolio without infringing the rights of a third party could have an adverse impact on our results of operations. In addition, we may not be able to recognize any expected synergies or benefits in connection with a future acquisition or combination or we may be unable to effectively implement the business plan for the acquired company, which would prevent us from achieving our financial and business goals for the business. If we are not successful in completing acquisitions or combinations that we may pursue in the future, we may incur substantial expenses and devote significant management time and resources without a successful result. In addition, future acquisitions could require use of substantial portions of our available cash or result in the incurrence of debt or dilutive issuances of securities. If we were to incur additional debt in the future in connection with an acquisition, or otherwise, it may contain covenants restricting our future activities, may incur significant interest rates or penalties for breach and we may be unable to generate sufficient cash to pay the principal or interest. Also, any issuance of equity securities may be dilutive. Acquisitions and combinations also frequently require the acquiring company to recognize significant amounts of intangible assets, such as goodwill, patents and trademarks and customer lists, in an acquisition, which amounts may be subject to a future impairment if we are unable to successfully implement the operating strategy for the acquired company.

We may, in the future, make investments in third party businesses or enter into joint development or similar agreements with third parties and these may require significant expenses and may not result in any technological or financial benefits.

We may, in the future, enter into arrangements in which we invest in another business without owning all of the voting control of the entity or without the ability to control the decision-making of the entity or we may enter into joint development or similar arrangements for the development of technology or sale of products. Investments of this nature can require a significant commitment of our time, attention, financial resources and technology sharing. If we do not have a controlling stake in these companies, it is likely that such entities may make their own business decisions that may not always align with our interests. In addition, some of the entities that we invest in, or enter into development projects with, will very likely have the right to manufacture or distribute their own products or certain products of our competitors. If we are unable to provide an appropriate mix of incentives to the companies that we invest in or in which we enter joint venture or similar arrangements, these other parties, through a combination of pricing and marketing and advertising support or otherwise, may take actions that, while maximizing their own short-term profits, may be detrimental to us or our brands, or they may devote more of their energy and resources to business opportunities or products other than those that generate a return for us. Such actions could, in the long run, have an adverse effect on our financial results. In addition, these types of investments may not ultimately generate the returns that we expect when we entered into the arrangements, which could result in a decrease in our cash holdings and loss of our entire investment.

Our ability to supply a sufficient number of products to meet demand could be severely hampered by natural disasters or other catastrophes.

Currently, a portion of our operations are located in Asia and we have increased our presence in Asia by opening our global operations center in Hong Kong. Additionally, a significant portion of our revenue is generated from customers that install our equipment in Asia and many of our suppliers are also located in Asia. These areas are subject to natural disasters such as earthquakes and floods. A significant catastrophic event such as earthquakes, floods, war, acts of terrorism or global threats, including, but not limited to, the outbreak of epidemic disease, could disrupt our operations and impair distribution of our products, damage inventory, interrupt critical functions, cause our suppliers to be unable to meet our demand for parts and equipment, reduce demand for our products, prevent our customers from honoring their contractual obligations to us or otherwise affect our business negatively. To the extent that such disruptions or uncertainties result in delays or our inability to fill orders, causes cancellations of customer orders, or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

We may be subject to concentration of credit risk related to our cash equivalents and short-term investments.

We may be exposed to losses in the event of nonperformance by the financial counterparties to our cash equivalent investments and short term investments. This risk may be heightened as a result of the financial crisis and volatility in the markets. We attempt to manage the concentration risk by making investments that comply with our investment policy. Currently, our cash equivalents are invested in cash deposit accounts and overnight money market funds at our financial institutions. Although we do not currently believe the principal amounts of these investments are subject to any material risk of loss, the recent volatility in the financial markets is likely to significantly impact the investment income we receive from these investments. In general, increases of credit risk related to our cash equivalents and short-term investments could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Our credit facilities contain covenants that impose significant restrictions on us.

On January 31, 2012, we entered into a credit agreement, or Credit Agreement, with Bank of America, N.A. and certain other lenders, which was subsequently amended in June 2012 to increase the amounts borrowed under the Term Facility. The Credit Agreement contains covenants and conditions that restrict our ability to incur certain additional debt, pay dividends and make distributions, enter into specified transactions with affiliates, acquire businesses, among others, and resulted in liens being placed on certain of our properties and assets. The terms of the Credit Agreement also impose financial covenants on us and our subsidiaries relating to our leverage ratio and interest coverage ratio.

The foregoing restrictions may limit our ability to operate our business and our failure to comply with any of these covenants could result in the acceleration of our outstanding indebtedness under the Credit Agreement. In addition, if we were to default on our 3.0% Convertible Senior Notes due 2017 and the payment of such notes was accelerated, the amount under the Credit Agreement would also accelerate. If such acceleration occurs, we would be required to repay our indebtedness, and we may not have the ability to do so or we may not be able to refinance our indebtedness, which would prevent us from investing in our business in an effort to grow our operations. Even if new financing is made available to us, it may not be available on acceptable or reasonable terms. An acceleration of our indebtedness could impair our ability to operate as a going concern.

Our level of indebtedness may limit our financial flexibility.

As of September 29, 2012 our total consolidated indebtedness was approximately $363.2 million (which amount includes the portion of our convertible notes due 2017 allocated to the conversion feature of $65.1 million) and our unrestricted cash was approximately $479.2 million. Our level of indebtedness affects our operations in several ways, including the following:

- a portion of our cash flows from operating activities must be used to service our indebtedness and is not available for other purposes;
- we may be at a competitive disadvantage as compared to similar companies that have less debt;
- the covenants contained in the agreements governing our outstanding indebtedness and future indebtedness may limit our ability to borrow additional funds, pay dividends and make certain investments and may also affect our flexibility in planning for, and reacting to, changes in the economy and in our industry;
- additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes may have higher costs and more restrictive covenants, or may not be available to us; and
- a lowering of the credit ratings of our debt may negatively affect the cost, terms, conditions and availability of future financing, and lower ratings will increase the interest rate we pay on any future corporate revolving bank credit facility.

Many of these factors are beyond our control. Factors that will affect our ability to raise cash through an offering of our capital stock or a refinancing of our debt include financial market conditions, the value of our assets and our performance at the time we need capital. In addition, our failure to comply with the financial and other restrictive covenants relating to our indebtedness could result in a default under that indebtedness, which could adversely affect our business, financial condition and results of operations.

Servicing our debt requires a significant amount of cash, and we may not have sufficient cash flow from our business to pay our substantial debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including our 3.0% senior convertible notes due 2017 and our Credit Agreement depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

We may face significant warranty claims.

All of our equipment and materials are sold with certain warranties. The warranty is typically provided on a repair or replace basis, and is not limited to products or parts manufactured by us. As a result, we bear the risk of warranty claims on all products we supply, including equipment and component parts manufactured by third parties. There can be no assurance that we will be successful in claiming under any warranty or indemnity provided to us by our suppliers in the event of a successful warranty claim against us by a customer or that any recovery from such supplier would be adequate. There is a risk that warranty claims made against us will exceed our warranty reserve and could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Exchange rate fluctuations may make our products less attractive to non-U.S. customers and otherwise have a negative impact on our operating results.

Our reporting currency is the U.S. dollar and almost all of our contracts are denominated in U.S. dollars. However, greater than 98% of our revenue was generated from sales to customers located outside the United States for both the three and six months ended September 29, 2012, an in each of the fiscal years ended March 31, 2012 and April 2, 2011, and we expect that a large percentage of our future revenue will continue to be derived from sales to customers located outside the United States. Changes in exchange rates between foreign currencies and the U.S. dollar could make our products less attractive to non-U.S.

customers and therefore decrease our sales and gross margins. In addition, we incur costs in the local currency of the countries outside the United States in which we operate and as a result are subject to currency translation risk. Exchange rates between a number of foreign currencies and the U.S. dollar have fluctuated significantly over the last few years and future exchange rate fluctuations may occur. Our largest foreign currency exposure is the Euro. In an attempt to mitigate foreign currency fluctuations, we have entered into, from time to time, forward foreign exchange contracts to hedge portions of equipment purchases from vendors located primarily in Europe. Our hedging activities may not be successful in reducing our exposure to foreign exchange rate fluctuations, for example, in the three and six months ended September 29, 2012 we were required to take a charge of $0.3 million and $0.9 million, respectively, as a result of certain forward foreign exchange contracts no longer qualifying as cash flow hedges, which may occur again if we delay, cancel or otherwise modify the terms of the equipment purchases that affect the forecasted cash flow transaction being hedged. Future exchange rate fluctuations may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

We have been subject to securities class action lawsuits. Potential similar or related litigation could result in substantial damages and may divert management's time and attention from our business.

In 2008, the Company, its directors and certain affiliates were defendants in class action suits that alleged certain violations under various sections of the Securities Act of 1933, in connection with our initial public offering. In March 2011, these class actions were settled and we were required to pay $10.5 million into a settlement fund. Of this amount, we contributed $1.0 million and our liability insurers contributed the remaining $9.5 million. Our contribution represented the contractual indemnification obligation to the underwriters.

As a publicly traded company, we may be subject to additional lawsuits relating to violations of the securities laws. Any such litigation would be expensive, time consuming to defend and, if we were unsuccessful in defending such claims, could result in the payments of significant sums. We do maintain insurance, but the coverage may not be sufficient and may not be available in all instances.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud. As a result, our stockholders could lose confidence in our financial reporting, which could harm our business and the trading price of our common stock.

We have complied with Section 404 of the Sarbanes-Oxley Act of 2002 by assessing, strengthening and testing our system of internal controls. Even though we concluded our system of internal controls was reasonably effective as of March 31, 2012, we need to continue to maintain our processes and systems and adapt them to changes as our business evolves and we acquire new business and technologies. This continuous process of maintaining and adapting our internal controls and complying with Section 404 is expensive and time-consuming, and requires significant management attention. We cannot be certain that our internal control measures will continue to provide adequate control over our financial processes and reporting and ensure compliance with Section 404. Furthermore, as our business changes and if we expand through acquisitions of other companies or make significant investments in other companies, our internal controls may become more complex and we will require significantly more resources to ensure our internal controls remain effective. In addition, if we reduce a portion of our workforce, our ability to adequately maintain our internal controls may be adversely impacted. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations. If we or our independent registered public accounting firm identify material weaknesses, the disclosure of that fact, even if quickly remediated, could reduce the market's confidence in our financial statements and harm our stock price.

Interpretations of existing accounting standards or the application of new standards could affect our revenue recognition and other accounting policies, which could have an adverse effect on the way we report our operating results.

Generally accepted accounting principles in the United States are subject to interpretations by the Financial Accounting Standards Board (FASB"), the American Institute of Certified Public Accountants, the SEC and various other organizations formed to promulgate and interpret accounting principles. A change in these accounting principles or their interpretations could affect the reporting of transactions that were completed before the announcement of a change in principles or interpretations. In October 2009, the FASB issued authoritative guidance that provides amendments to the revenue recognition criteria for separating consideration in multiple-deliverable revenue arrangements. This guidance prescribes a methodology for determining the fair value, or best estimated selling price, of deliverables on an individual element basis, including elements for which objective reliable evidence of fair value previously did not exist. As noted in Note 2 to our financial statements included in our Annual Report on Form 10-K, as filed with the SEC on May 25, 2012, under the current revenue guidance, for arrangements containing products considered to be established", the majority of our revenue is recognized upon delivery of the product. For arrangements containing products considered to be new", or containing customer acceptance provisions that are deemed more than perfunctory, revenue is recorded upon customer acceptance.

If we make incorrect estimates or judgments in applying our revenue recognition policies, for example, if we incorrectly classify a product as established" when it should have been new", it may impact the timing of recognizing that revenue and may further result in failing to meet guidance provided by us or require that we restate our prior financial statements. Additional errors in applying estimates or judgments in accounting policies may also adversely impact our operating results and may, in certain cases, require us to restate prior financial statements.

If we are unable to adopt and implement adequate data security procedures, we could lose valuable proprietary information, third parties may be able to access information about the operations of our equipment at customer sites and employee data, any of the foregoing may harm our reputation and our results of operations.

While we have implemented data security measures, a third party may still gain unauthorized access to our servers, laptops or mobile devices. We store our important proprietary information on our servers, including equipment specifications, and our employees may access this data remotely. This information is also shared via e-mail and we rely on industry standard encryption tools for transmitting data (which has been attacked in the past). If a competitor were able to access this information, we would lose the competitive advantages we believe we have and we could also lose the benefits that are or could be realized from our research and development efforts. Access to this information may be the result of a third-party by-passing our security measures, third party encryption tools not providing adequate protection or inadvertent error by an employee that results in this information being accessed by unauthorized users.

Some of our servers containing our proprietary and confidential product and customer information are located in foreign jurisdictions, such as China and Hong Kong, and the governments in these jurisdictions may be able to access, review, retain and use this information without any legal recourse on our part or the right to compensation.

In a very limited number of cases, we are able to monitor the operations of our equipment in our customers' facilities. If a third party were able to access this information, they would be able to view important data about the operations of our equipment and use this customer information to their benefit. In addition, it is very likely that our reputation would be harmed among our customers and they could prevent our remote access in the future or even cease purchasing equipment from us.

Finally, we also store financial reporting information and employee data on our computer systems. If our financial information were tampered with, investors and could lose confidence in our reported financial results. If our employee information were accessed, our employees may lose confidence in our operations, we may confront challenges attracting new employees and may face government penalties if we were found to have taken inadequate measures to protect employee information.

We could be adversely affected by violations of applicable anti-corruption laws or violations of our internal policies designed to ensure ethical business practices.

We operate in a number of countries throughout the world, including in countries that do not have as strong a commitment to anti-corruption and ethical behavior that is required by U.S. laws or by corporate policies. We are subject to the risk that we, our U.S. employees or our employees located in other jurisdictions or any third parties that we engage to do work on our behalf in foreign countries may take action determined to be in violation of anti-corruption laws in any jurisdiction in which we conduct business, including the U.S. Foreign Corrupt Practices Act of 1977 (or the FCPA). In addition, we operate in certain countries in which the government takes ownership stake in certain enterprises and such government ownership may not be readily apparent (thereby increasing potential FCPA violations as we conduct business with that entity). Any violation of the FCPA or any similar anti-corruption law could result in substantial fines, sanctions, civil and/or criminal penalties and curtailment of operations in certain jurisdictions and might adversely affect our business, results of operations or financial condition. In addition, we have internal ethics policies that we require our employees to comply with in order to ensure that our business is conducted in a manner that our management deems appropriate. If these anti-corruption laws or internal policies were to be violated, our reputation and operations could also be substantially harmed. Further, detecting, investigating, and resolving actual or alleged violations is expensive and can consume significant time and attention of our senior management.

Risks Relating to Our Polysilicon Business

The market for polysilicon has been cyclical, resulting in periods of insufficient or excess production capacity and could result in variation in demand for our products.

The market for polysilicon has been cyclical. In the recent past, polysilicon supply had increased due principally to expansion by existing manufacturers. This factor, among others, resulted in declining prices in polysilicon. An excess in production capacity for polysilicon has, and in the future may, adversely affect demand for our SDR reactors. There can be no certainty that the increased demand during the periods of expansion in polysilicon manufacturing capacity will persist for an extended period of time, or at all. A lack of demand for our SDR reactors could have a material adverse effect on our financial condition, results of operations, business and/or prospects. Conversely, if there are shortages of polysilicon in the future, the PV industry may be unable to continue to grow and/or may decline, and, as a result, demand for our PV products may decrease or may be eliminated.

We license and do not own certain components of the technology underlying our SDR reactor and STC converter products.

Certain components of the technology underlying our SDR reactor and STC converter products is not owned by us, but is licensed under a ninety-nine year license agreement that could be terminated in the event of a material breach by us of such agreement that remains uncured for more than thirty days, or upon our bankruptcy or insolvency. To the extent such components are deemed to be incorporated into our current or future products, any termination of our rights to use such technology could have a material adverse effect on our ability to offer our polysilicon products and therefore on our financial condition, results of operations, business and/or prospects if our company was unable to secure these rights in a different manner or from an alternative arrangement.

Risks Relating to Our Photovoltaic Business

Government subsidies and economic incentives for on-grid solar electricity applications could be reduced or eliminated.

Demand for PV equipment, including on-grid applications, has historically been dependent in part on the availability and size of government subsidies and economic incentives. Currently, the cost of solar electricity exceeds the retail price of electricity in most major markets in the world. As a result, federal, state and local governmental bodies in many countries, most notably Germany, Italy, Spain, South Korea, Japan, China and the United States, have provided subsidies in the form of feed-in tariffs, rebates, tax write-offs and other incentives to end-users, distributors, systems integrators and/or manufacturers of PV products to promote the use of solar energy in on-grid applications and to reduce dependency on other forms of energy. Many of these government incentives have expired or are due to expire in time, phase out over time, cease upon exhaustion of the allocated funding and/or are subject to cancellation or non-renewal by the applicable authority. The reduction, expiration or elimination of relevant government subsidies or other economic incentives may result in the diminished competitiveness of solar energy relative to conventional and other renewable sources of energy, and adversely affect demand for PV equipment or result in increased price competition, all of which could cause our sales and revenue to decline and have a material adverse effect on our financial condition, results of operations, business and/or prospects. Further, any government subsidies and economic incentives could be reduced or eliminated altogether at any time and for any reason. We believe that government subsidies and incentives will be eliminated in the near future. Also, relevant statutes or regulations may be found to be anti-competitive, unconstitutional or may be amended or discontinued for other reasons. Some government subsidies and incentives have been subject to challenge in courts in certain foreign jurisdictions. New proceedings challenging minimum price regulations or other government incentives in other countries in which we conduct our business or in which our customers conduct business, may be initiated, and if successful, could cause a decrease in demand for our products.

Existing regulations and policies and changes to these regulations and policies may present technical, regulatory and economic barriers to the purchase and use of photovoltaic products.

The market for electricity generation products is heavily influenced by government regulations and policies concerning the electric utility industry, as well as policies promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of user-owned electricity generation. In the United States and in a number of other countries, these regulations and policies are currently being modified and may be modified again in the future. These regulations and policies could deter end-user purchases of PV products and investment in the research and development of PV technology. For example, without a mandated regulatory exception for PV systems, utility customers are often charged interconnection or standby fees for putting distributed power generation on the electric utility grid. These fees could increase the cost to end-users of PV systems and make such systems less attractive to potential customers, which may have a material adverse effect on demand for our polysilicon and PV products and our financial condition, results of operations, business and/or prospects.

The photovoltaic industry may not be able to compete successfully with conventional power generation or other sources of renewable energy.

Although the PV industry has experienced advances in recent years, it still comprises a relatively small component of the total power generation market and competes with other sources of renewable energy, as well as conventional power generation. Many factors may affect the viability of widespread adoption of PV technology and thus demand for solar wafer manufacturing equipment, including the following:

- cost-effectiveness of solar energy compared to conventional power generation and other renewable energy sources;

- performance and reliability of solar modules compared to conventional power generation and other renewable energy sources and products;

- availability and size of government subsidies and incentives to support the development of the solar energy industry;

- success of other renewable energy generation technologies such as hydroelectric, wind, geothermal and biomass; and

- fluctuations in economic and market conditions that affect the viability of conventional power generation and other renewable energy sources, such as increases or decreases in the prices of oil, natural gas and other fossil fuels.

As a result of any of the foregoing factors, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

Risks Relating to Our Sapphire Business

If our sapphire equipment and material do not achieve market acceptance, prospects for our sapphire business would be limited.

The customers to whom we sell ASF systems are, we believe, largely manufacturing for the LED industry and, in more limited cases, other industrial markets. Potential customers for sapphire equipment and sapphire-based LED materials manufactured with the ASF system may be reluctant to adopt these offerings as an alternative to existing sapphire materials and lighting technology or sapphire manufacturing processes. In addition, many of the customers who purchase our equipment, we believe, will utilize the material for LED lighting. However, LED lighting is currently more expensive than traditional lighting and if the price does not decrease in the near future, our customers may not have a market for the material they produce with our ASF systems, which would reduce the demand for our ASF systems.

In addition, potential customers may have substantial investments and know-how related to their existing sapphire, LED and lighting technologies, and may perceive risks relating to the complexity, reliability, quality, usefulness and cost-effectiveness of our sapphire equipment and sapphire material products compared to alternative products and technologies available in the market or that are currently under development. For example, companies are developing general lighting technologies that utilize silicon-based material (in lieu of sapphire) and assert that the production costs are significantly lower than the costs to produce sapphire-based lighting materials. If acceptance of sapphire material and sapphire-based LEDs, particularly in general illumination, do not increase significantly, opportunities to increase the sapphire equipment portion of our business and revenues would be limited.

In addition, the price of sapphire-based LED material has recently experienced a marked drop due, in part, to the readily available supply of such material. If the price of LED material, which is driven, in large part due to the supply that is generally available, drops, we would expect that our materials and equipment business would be negatively impacted.

Any of the foregoing factors could have an adverse impact on the growth of the sapphire portion of our business and the recoverability of our investment in Crystal Systems. Historically, the sapphire industry has experienced volatility in product demand and pricing. Changes in average selling prices of sapphire material as a result of competitive pricing pressures, availability of material, increased sales discounts and new product introductions by competitors could have an adverse impact on our results of operations.

Our efforts to expand the use of sapphire into other applications may not be successful and may not produce revenue in the future.

We have recently undertaken efforts to broaden the use of sapphire to applications beyond LED and general illumination. For example, sapphire has qualities that we believe may make it suitable for use in industrial applications and consumer electronics (including mobile devices). These efforts, however, are only in the early stages, with only one customer, we believe, purchasing ASF systems in order to supply sapphire for use in mobile consumer devices. Our efforts to gain market acceptance for the use of sapphire in these other markets may not be successful. If so, we may expend financial resources and management time without generating a meaningful amount of revenue. In addition, our stock price may be adversely impacted if investors expect that the industrial or mobile device market represents a significant opportunity and sapphire (or sapphire from the ASF system) does not meet their expectation.

Crystal growth using the ASF system requires a consistent supply of power and any interruption in the supply of power may result in sapphire material that has reduced or no sales value.

The process for growing sapphire boules using the ASF system technology requires that the system be supplied with a consistent supply of power during the cycle required to grow a boule. If there are certain types of power interruptions, which we have experienced at our Salem and Merrimack facilities, even for a brief period of time, the sapphire boule being generated by that system will be of inferior quality and we would likely be unable to sell that sapphire material to a customer. Such power interruptions at our facilities also delay and impair our research and development efforts with respect to sapphire material and ASF systems. In addition, if customers of our ASF system do not have consistent power supplies, our system would not gain market acceptance because it will not create boules of the quality that may be expected by our customers and we would likely not meet the required contractual acceptance criteria necessary to receive the final installment payment.

Production and sale of sapphire growth systems for producing LED materials is a new industry and we have limited operating history, which makes it difficult to evaluate the business prospects for this business segment.

Because of our limited operating history in the sapphire industry it is difficult to evaluate our business and prospects. While we have gained contractual acceptances on our ASF systems, our sapphire equipment business, however, presents the difficulties frequently encountered by those businesses that are in the early stage of development, coupled with the risks and uncertainties encountered in new and evolving markets such as the market for sapphire growth technology. We may not be able to successfully address these challenges. If we fail to do so, we may incur losses and our business would be negatively impacted.

While we have commissioned ASF systems at customer sites, our customers generally lack experience in operating the ASF systems. Our sapphire furnaces require a skilled and trained employee base to properly operate and efficiently maintain the systems. While we offer training in connection with the sale of ASF systems, at certain customer sites, we have discovered that those customers have not yet hired the personnel or instituted the operations procedures necessary to properly run the ASF system they purchased. As a result of these factors, we believe that certain ASF systems have generated sapphire material that is not salable. Additionally, even in those cases where the sapphire boule was to specification, the boule has not always been properly oriented by the customer and some or all of the value of the sapphire boule was lost as it was sliced and cored. If our customers do not have the manufacturing expertise to operate the ASF systems, they may be delayed in ramping up their operations and sapphire manufacturing operations, we may not recognize revenue from the sale of these systems (or such recognition may be delayed) and the ASF systems may not gain wider market acceptance, all of which would harm our reputation and the results of our sapphire business segment.

Risks Relating to Our Common Stock

Future sales of our common stock, or the perception in the public markets that these sales may occur, could depress our stock price.

Future sales of substantial amounts of our common stock in the public market or the perception that these sales could occur, could adversely affect the price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. In addition, future equity financings could also result in dilution to our stockholders and new securities could have rights, preferences and privileges that are senior to those of our common shares.

Our certificate of incorporation currently authorizes us to issue up to 500 million shares of common stock, and as of September 29, 2012, we had approximately 119 million shares of common stock outstanding. All of these shares are freely tradable, in the public market under a registration statement or an exemption under the securities laws. Moreover, as of September 29, 2012, 10.6 million shares of our common stock were issuable upon the exercise of outstanding vested and unvested options and upon vesting of outstanding restricted stock units.

Our certificate of incorporation and by-laws contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.

Some provisions of our certificate of incorporation and by-laws may have the effect of delaying, discouraging or preventing a merger or acquisition that our stockholders may consider favorable, including transactions in which stockholders may receive a premium for their shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- the removal of directors only by the affirmative vote of the holders of two-thirds of the shares of our capital stock entitled to vote;

- any vacancy on our board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of the directors then in office;

- inability of stockholders to call special meetings of stockholders or take action by written consent;

- advance notice requirements for board nominations and proposing matters to be acted on by stockholders at stockholder meetings; and

- authorization of the issuance of blank check" preferred stock without the need for action by stockholders.

We are a technology-oriented company and, as such, we expect that the price of our common stock may fluctuate substantially.

We operate in an industry where there are rapid changes in technologies and product offerings. Broad market, industry and economic factors may adversely affect the market price of our common stock, regardless of our actual operating performance. Factors that could cause fluctuations in our stock price may include, among other things:

- actual or anticipated variations in quarterly operating results;

- changes in market prices for our products or for our raw materials;

- changes in our financial guidance or estimates made by us or by any securities analysts who may cover our stock or our failure to meet the estimates made by securities analysts;

- changes in the market valuations of other companies operating in our industry;

- announcements by us or our competitors of significant acquisitions, strategic partnerships, divestitures or significant contracts;

- changes in governmental policies with respect to energy;

- additions or departures of key personnel; and

- sales of our common stock, including sales of our common stock by our directors and officers or by our larger stockholders.

Announcements of contract awards or bankruptcies of solar-related companies could have a significant impact on our stock price.

It is common for equipment manufacturers in the business segments in which we operate to enter into contracts for the sale and delivery of substantial amounts of equipment, involving highly competitive bidding situations. Public announcements of contract awards often cause a reaction in the stock market and affect, sometimes significantly, the trading price of the stock of the manufacturer that received a contract award. It could also have a negative effect on the trading price of stock of competitors that did not receive such contract. This reaction may be unrelated to the historical results of operations or financial condition of the affected companies or, in the case of unsuccessful competitors, any guidance they may have provided with respect to their future financial results. An announcement that a competitor of ours was awarded a significant customer contract could have a material adverse effect on the trading price of our stock.

In addition, there have been several recent announcements that companies offering solar power related services and materials have filed or will file for bankruptcy. For example, Solyndra filed for bankruptcy in August 2011. Such announcements, and future similar announcements, will likely have a negative effect on the trading price of our stock. This will likely be the case even if such companies do not utilize the output for the equipment we sell.

Our quarterly operating results have fluctuated significantly in the past and we expect that our quarterly results will continue to fluctuate significantly in the future.

Our quarterly operating results have fluctuated significantly in the past and we expect that our quarterly results will continue to fluctuate significantly in the future. Future quarterly fluctuations may result from a number of factors, including:

- the size of new contracts and when we are able to recognize the related revenue, especially with respect to our polysilicon products;
- requests for delays in deliveries by our customers;
- delays in customer acceptances of our products;
- delays in deliveries from our vendors;
- our rate of progress in the fulfillment of our obligations under our contracts;
- the degree of market acceptance of our products and service offerings;
- the mix of products and services sold;
- budgeting cycles of our customers;
- product lifecycles;
- changes in demand for our products and services;
- the level and timing of expenses for product development and sales, general and administrative expenses;
- competition by existing and emerging competitors, including in the PV, polysilicon and sapphire industry;
- announcements by our competitors or customers of the awarding of a significant contract;
- termination of contracts in our backlog;
- our success in developing and selling new products and services, controlling costs, attracting and retaining qualified personnel and expanding our sales force;
- changes in government subsidies and economic incentives for on-grid solar electricity applications;
- announcements regarding litigation or claims against us;
- changes in export licensing or export restrictions with respect to our products;

- changes in our strategy;

- negative announcements regarding solar and sapphire industry participants, such as the bankruptcies of Evergreen Solar and Solyndra, as well as government investigations of Solyndra operations;

- foreign exchange fluctuations; and

- general economic conditions.

Based on these factors, we believe our future operating results will vary significantly from quarter-to-quarter and year-to-year. As a result, quarter-to-quarter and year-to-year comparisons of operating results are not necessarily meaningful nor do they indicate what our future performance will be.

Hedging activity and sales of our common stock related to the Mandatorily Exchangeable Notes issued by UBS AG, our 3.00% Convertible Notes, the Convertible Note Hedge and Warrants entered into in connection with the 3.00% Convertible Notes and/or the expectation of distribution of our common stock at maturity of the Exchangeable Notes, 3.00% Convertible Notes or the Exercise of the Warrants could depress our stock price.

During September 2010, UBS AG sold its Mandatorily Exchangeable Notes due 2013, or the exchangeable notes, pursuant to which UBS AG will deliver to holders of the exchangeable notes at maturity up to 17.5 million shares of our common stock or the value of such shares in cash, or a combination of cash and shares, based on a formula linked to the price of our common stock. In connection with the issuance by UBS AG of its exchangeable notes, GT Solar Holdings, LLC (a former significant shareholder) sold an aggregate of 14.0 million shares of our common stock to UBS Securities LLC, an affiliate of UBS AG. We understand that UBS AG and one or more of its affiliates have entered into and/or are expected to enter into hedging arrangements related to UBS AG's obligations under the exchangeable notes. This hedging activity will likely involve trading in our common stock or in other instruments, such as options or swaps, based upon our common stock, and may include sales of common stock acquired by an affiliate of UBS AG upon early exchange of exchangeable notes.

In September 2012, we issued $220 million aggregate principal amount of 3.00% Convertible Senior Notes due 2017. Upon conversion of these Notes, we will pay or deliver, as the case may be, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election. The Notes may be converted, under the certain conditions specified in the Indenture entered into in connection with the issuance of the Notes, based on an initial conversion rate of 129.7185 shares of common stock per $1,000 principal amount of Notes (which represents an initial effective conversion price of the Notes of $7.71 per share), subject to adjustment as described in the Indenture. It is likely that the some or all of the holders of the Notes will enter into hedging arrangements that involves trading in our common stock or in other instruments, such as options or swaps, based upon our common stock.

In connection with issuing the Notes, we entered into convertible note hedge transactions with certain option counterparties. The convertible note hedge transactions are expected to reduce the potential dilution and/or offset any cash payments we are required to make in excess of the principal amount upon conversion of the Notes. We also entered into warrant transactions with the option counterparties. We believe that the option counterparties or affiliates entered into various derivative transactions with respect to our common stock concurrently with or shortly after the pricing of the Notes. The option counterparties or their affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any "observation period" related to a conversion of Notes). This activity could also cause or avoid an increase or a decrease in the market price of our common stock. In addition, if any such convertible note hedge and warrant transaction is exercised or unwound early or any such warrant transaction is unwound early, such action could adversely affect the value of our common stock.

All of the foregoing hedging activity could affect our stock price, including by depressing it. Also, the price of our common stock could be depressed by possible sales of our common stock by investors who view the Exchangeable Notes or Notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to occur involving our common stock by investors in the Exchangeable Notes and the Notes. Our stock price could become more volatile and could be depressed by investors' anticipation of the potential distribution into the market of substantial additional amounts of our common stock at the maturity of the Exchangeable Notes and the Notes or at the time of exercise of the warrants.

We currently do not intend to pay dividends on our common stock and as a result, the only opportunity to achieve a return on an investment in our common stock is if the price appreciates.

We currently do not expect to declare or pay dividends on our common stock in the foreseeable future. In addition, our credit agreement with Bank of America, N.A., which we entered into in January 2012, restricts our right to declare or make any dividends, subject to certain exceptions. As a result, the only opportunity to achieve a return on an investment in our common stock will be if the market price of our common stock appreciates and the shares are sold at a profit. We cannot assure our investors that the market price for our common stock will ever exceed the price that was paid.

Our actual operating results may differ significantly from our guidance.

From time to time, we release guidance in our quarterly earnings releases, quarterly earnings conference call or otherwise, regarding our future performance that represent our management's estimates as of the date of release. This guidance, which includes forward-looking statements, is based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections and, accordingly, no such person expresses any opinion or any other form of assurance with respect thereto.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We generally state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to represent that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons. Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results will vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon, or otherwise consider, our guidance in making an investment decision in respect of our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in our Risk Factors" in this Quarterly Report on Form 10-Q could result in the actual operating results being different from our guidance, and such differences may be adverse and material.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) On September 25, 2012, we entered into warrant transactions with certain counterparties (each, an "Option Counterparty"). Pursuant to the warrant transactions, the Company issued warrants to purchase 28,538,073 shares of our common stock with a strike price of $9.9328 per share. The number of warrants and the strike price are subject to adjustment under certain circumstances described in warrants confirmations. We offered and sold the warrants in reliance on the exemption from registration provided by Section 4(2) of the Securities Act. Neither the warrants nor the underlying shares of common stock (issuable in the event the market price per share of the common stock exceeds the strike price of the warrants on each date the warrants are exercised) have been registered under the Securities Act.

(c) Stock Repurchases.

The following table sets forth information in connection with purchases made by, or on behalf of, us or any affiliated purchaser, of shares of our common stock during the six months ended September 29, 2012:

	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
Month #1 (April 1, 2012 through May 5, 2012)	3,876	$ 7.60	—	—
Month #2 (May 6, 2012 through June 2, 2012)	127,721	$ 4.07	—	—
Month #3 (June 3, 2012 through June 30, 2012)	1,512	$ 4.80	—	$ —
Month #4 (July 1, 2012 through August 4, 2012)	1,102	$ 5.03	—	—
Month #5 (August 5, 2012 through September 1, 2012)	51,201	$ 5.92	—	—
Month #6 (September 2, 2012 through September 29, 2012)	926	$ 6.52	—	$ 25,000,000

We did not repurchase any of our common stock on the open market as part of a stock repurchase program during the six months ended September 29, 2012; however, our employees surrendered, and we subsequently retired, 176,560 shares of our common stock to satisfy the tax withholding obligations on the vesting of restricted stock unit awards issued under our equity incentive plans.

Our credit facility imposes restrictions on our ability, and the ability of our subsidiaries, to pay cash dividends, subject to certain limited exceptions.

Item 3. Defaults Upon Senior Securities

None

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None

Item 6. Exhibits

Exhibits are incorporated by reference or are filed with this report as indicated below (numbered in accordance with Item 601 of Regulation S-K).

		Incorporated by Reference			
Exhibit Number	Description of Document	Form	Date Filed	Exhibit #	Filed Herewith
1.1	Underwriting Agreement, dated September 24, 2012, between the Company and the Underwriters	8-K	9/28/2012	1.1	
4.1	Indenture, dated September 28, 2012, between the Company and U.S. Bank National Association, as Trustee	8-K	9/28/2012	4.1	
4.2	First Supplemental Indenture, dated September 28, 2012 between the Company and U.S. Bank National Association, as Trustee (including a form of 3.00% Convertible Senior Note due 2017)	8-K	9/28/2012	4.2	
10.1	Base Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and UBS AG	8-K	9/28/2012	10.1	
10.2	Base Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Morgan Stanley & Co. International plc	8-K	9/28/2012	10.2	
10.3	Base Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Credit Suisse International	8-K	9/28/2012	10.3	
10.4	Base Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Bank of America N.A.	8-K	9/28/2012	10.4	
10.5	Additional Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and UBS AG	8-K	9/28/2012	10.5	
10.6	Additional Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Morgan Stanley & Co. International plc	8-K	9/28/2012	10.6	
10.7	Additional Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Credit Suisse International	8-K	9/28/2012	10.7	
10.8	Additional Convertible Bond Hedge Transaction Confirmation, dated September 25, 2012, between the Company and Bank of America N.A.	8-K	9/28/2012	10.8	
10.9	Base Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and UBS AG	8-K	9/28/2012	10.9	

10.10	Base Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Morgan Stanley & Co. International plc	8-K 9/28/2012	10.1	
10.11	Base Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Credit Suisse International	8-K 9/28/2012	10.11	
10.12	Base Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Bank of America N.A.	8-K 9/28/2012	10.12	
10.13	Additional Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and UBS AG	8-K 9/28/2012	10.13	
10.14	Additional Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Morgan Stanley & Co. International plc	8-K 9/28/2012	10.14	
10.15	Additional Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Credit Suisse International	8-K 9/28/2012	10.15	
10.16	Additional Issuer Warrant Transaction Confirmation, dated September 25, 2012, between the Company and Bank of America N.A.	8-K 9/28/2012	10.16	
10.17	Amendment No. 1 to Credit Agreement, dated as of January 31, 2012, by and among the Company, its U.S. operating subsidiary (as U.S. Borrower), its Hong Kong subsidiary (as Hong Kong Borrower), each lender from time to time party thereto and Bank of America, N.A., as administrative agent, Swing Line Lender and L/C Issuer	8-K 9/28/2012	10.17	
10.18	Letter Agreement, dated as of October 12, 2012, by and between GTAT Corporation and David Keck	8-K 10/18/2012	10.1	
10.19	Consulting Agreement, dated as of October 12, 2012, by and between GTAT Corporation and David Keck	8-K 10/18/2012	10.2	
10.20	Employment Agreement, dated as of June 18, 2012, by and between GT Advanced Technologies Inc. and Dan Squiller			X
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, Rule 13a-14(a)/ 15d-14(a), by Chief Executive Officer.			X
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, Rule 13a-14(a)/ 15d-14(a), by Chief Financial Officer.			X
32	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Chief Executive Officer and Chief Financial Officer.			X
101.SCH	XBRL Taxonomy Extension Schema Document*			X

101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*	X

* Pursuant to applicable securities laws and regulations, we are deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and are not subject to liability under any anti-fraud provisions of the federal securities laws as long as we have made a good faith attempt to comply with the submission requirements and promptly amend the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. Users of this data are advised pursuant to Rule 406T of Regulation S-T that this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

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.

GT ADVANCED TECHNOLOGIES INC.

By: /s/ Thomas Gutierrez
Thomas Gutierrez
President and Chief Executive Officer

Date: November 7, 2012

By: /s/ Richard J. Gaynor
Richard J. Gaynor
Vice President and Chief Financial Officer

Date: November 7, 2012

Exhibit 10.20

EMPLOYMENT AGREEMENT

THIS AGREEMENT (this "Agreement") is made as of June 18, 2012 between GT Advanced Technologies Inc., a Delaware corporation (the "Company"), and Dan Squiller ("Executive").

In consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Employment. The Company shall employ Executive, and Executive hereby accepts employment with the Company, upon the terms and conditions set forth in this Agreement for the period beginning on the date of this Agreement and ending as provided in Section 4 hereof (the "Employment Period").

2. Position and Duties.

(a) During the Employment Period, Executive shall serve as the Vice President and Chief Operating Officer of the Company and shall have the normal duties, responsibilities, functions and authority of the Vice President and Chief Operating Officer. During the Employment Period, Executive shall render such administrative, financial and other executive and managerial services to the Company and its Subsidiaries which are consistent with Executive's position as the Company's board of directors (the "Board") may from time to time direct.

(b) During the Employment Period, Executive shall report to the President and Chief Executive Officer and shall devote his best efforts and his full business time and attention (except for permitted vacation periods and reasonable periods of illness or other incapacity) to the business and affairs of the Company and its Subsidiaries. Executive shall perform his duties, responsibilities and functions to the Company and its Subsidiaries hereunder to the best of his abilities in a diligent, trustworthy, professional and efficient manner and shall comply with the Company's and its Subsidiaries' policies and procedures in all material respects. In performing his duties and exercising his authority under the Agreement, Executive shall support and implement the business and strategic plans approved from time to time by the Board and the President and Chief Executive Officer and shall support and cooperate with the Company's and its Subsidiaries' efforts to expand their businesses and operate profitably and in conformity with the business and strategic plans approved by the Board. So long as Executive is employed by the Company, Executive shall not, without the prior written consent of the President and Chief Executive Officer, accept other employment or perform other services for compensation. During the Employment Period, Executive shall not serve as an officer or director of, or otherwise perform services for compensation for, any other entity without the prior written consent of the President and Chief Executive Officer; provided that Executive may serve as a director of an officer or director of or otherwise participate in solely educational, welfare, social, religious, sporting club and civic organizations so long as such activities do not interfere with Executive's employment with the Company and its Subsidiaries.

(c) For a period of time mutually agreeable to the Executive and the President and Chief Executive Officer, the Executive will work at the Company's offices in Nashua, New Hampshire (or another location in the United States mutually agreeable to the Executive and the President and Chief Executive Officer). After this initial period, the Executive acknowledges and agrees that the Executive will be headquartered in Hong Kong, China for a period of approximately three years.

(d) For purposes of this Agreement, "Subsidiaries" shall mean any corporation or other entity of which the securities or other ownership interests having the voting power to elect a majority of the board of directors or other governing body are, at the time of determination, owned by the Company, directly or through one of more Subsidiaries.

3. Compensation and Benefits.

(a) During the Employment Period, Executive's base salary shall be $500,000 per annum or such higher rate as the Compensation Committee of the Board (the "Compensation Committee") may determine from time to time (as adjusted from time to time, the "Base Salary"), which salary shall be payable by the Company in proportionate, bi-weekly installments and in accordance with the Company's general payroll practices in effect from time to time. For any partial years of employment during the Employment Period, the Base Salary shall be pro rated on an annualized basis. In addition, during the Employment Period, Executive shall be entitled to participate in all of the Company's employee benefit programs (other than bonuses and other incentive programs, except as otherwise (i) provided herein or (ii) determined by the Board) for which senior executive employees of the Company and its Subsidiaries are generally eligible, and Executive shall be entitled to four (4) weeks of paid vacation and paid leave for illness each calendar year in accordance with the Company's policies.

(b) In addition to the Base Salary:

(i) During the Employment Period, Executive shall be entitled to participate in the 162(m) Executive Bonus Program of the Company (the "Bonus Plan"), pursuant to the terms thereof, for the 9-month transition period ending December 31, 2012 (the "Transition Period"), under which Executive may be eligible to receive a bonus based upon the achievement of such performance targets and other conditions as stated in the Bonus Plan. Executive's "Participation Date" under the Bonus Plan shall be the date hereof. Notwithstanding the foregoing or anything to the contrary contained in the Bonus Plan, Executive shall be entitled to a minimum cash bonus under the Bonus Plan with respect to the Transition Period in an amount equal to $250,000/365 multiplied by the number of days during Transition Period which Executive was continuously employed by the Company, so long as Executive is employed on the last day of the Transition Period. Such cash bonus shall be payable to Executive on the same date that bonus payments are made senior executive employees under the Bonus Plan. The Bonus Plan, if any, for future years shall be determined by the Compensation Committee of the Board of Directors. While the Company does not guarantee the existence or the terms and conditions of any incentive plan in future years, participation in any such plans, if any, shall be extended to Executive to an extent commensurate with Executive's position.

(c) Pursuant the Company's 2011 Equity Incentive Plan (the "Plan"), Executive will receive a restricted stock units ("RSUs"). The number of shares of Company common stock underlying the RSUs shall be $4,000,000 divided by the closing price of the Company's stock on the date of grant. The terms of the RSUs shall be set forth in the form of Restricted Stock Unit Agreement and shall be subject to the Plan, each as attached hereto as Exhibits A-1 and A-2 respectively.

(d) The Company shall also pay Executive upon the date of execution of this Agreement the sum of $200,000 as a one-time sign on bonus award.

(e) During the Employment Period, the Company shall reimburse Executive for all reasonable business expenses incurred by him in the course of performing his duties and responsibilities under this Agreement which are consistent with the Company's policies in effect from time to time with respect to travel, entertainment and other business expenses, subject to the Company's requirements with respect to reporting and documentation of such expenses.

(f) All amounts payable to Executive hereunder shall be subject to all required and customary withholding by the Company and its Subsidiaries.

4. Termination.

(a) The Employment Period shall begin on the date of this Agreement and continue until the Employment Period is terminated by (i) Executive's resignation (with or without Good Reason, as defined below) or death or Disability (as defined below) as provided herein or (ii) the Company at any time prior to such date with or without Cause (as defined below). Except as otherwise provided herein, any termination of the Employment Period by the Company shall be effective as specified in a written notice from the Company to Executive; provided that, the Company shall provide at least thirty (30) days advanced notice to Executive in the event the Company terminates Executive's employment without Cause. Executive shall provide at least thirty (30) days advanced written notice of Executive's resignation of employment, with or without Good Reason (as defined below), to the President and Chief Executive Officer. For the avoidance of doubt, subject to the terms and provisions of this Agreement, including this Section 4, the Employment Period may be terminated by either the Company or Executive at any time.

(b) If the Employment Period is terminated by the Company without Cause, or as a result of Executive's resignation with Good Reason, Executive shall be entitled to:

(i) continue to receive his Base Salary (paid in accordance with the Company's general payroll practices in effect on the termination date) as special severance payments from the date of termination for a period of twelve (12) months thereafter (the "Severance Period");

(ii) to the extent permitted by the applicable benefit plans, continued participation during the Severance Period in health and dental insurance plans sponsored by the Company on terms and conditions in effect at the time of such termination (including cost sharing, if applicable) substantially similar to those applicable to employees of the Company generally;

provided, however, Executive shall be entitled to the payments and benefits described in clauses (b)(i) and (b)(ii) of this Section 4 if and only if Executive has executed and delivered to the Company the General Release substantially in form and substance as set forth in Exhibit B attached hereto, and the General Release has become effective and no longer subject to revocation no later than 60 days following the termination of the Employment Period and not then been breached (the "Initial Severance Conditions"), and only so long as Executive has not revoked or breached the provisions of the General Release. Any amounts payable or benefits to be provided pursuant to this Section 4(b) shall not be paid or provided until the first scheduled payment date following the satisfaction of the Initial Severance Conditions (with the first such payment being in an amount equal to the total amount to which Executive would otherwise have been entitled during the period following the date of termination if such deferral had not been required); provided, however, any such amounts that constitute "nonqualified deferred compensation" within the meaning of Internal Revenue Code Section 409A and the regulations and guidance promulgated thereunder ("Section 409A") shall not be paid or provided until the 60th day following such termination to the extent necessary to avoid adverse tax consequences under Section 409A and if such payments or benefits are required to be so deferred, the first payment shall be in an amount equal to the total amount to which Executive would otherwise have been entitled during the period following the date of termination if such deferral had not been required; provided, further, that if Executive is a "specified employee" within the meaning of Section 409A, any amounts payable to Executive under this Section 4(b) during the first six months and one day following the date of termination pursuant to this Section 4(b) that constitute nonqualified deferred compensation within the meaning of Section 409A shall not be paid or provided until the date six months and one day following such termination to the extent necessary to avoid adverse tax consequences under Section 409A, and if such payments are required to be so deferred, the first payment shall be in an amount equal to the total amount to which Executive would otherwise have been entitled to during the period following the date of termination if such deferral had not been required. Executive shall not be entitled to any other salary, compensation or benefits after termination of the Employment Period, except as specifically provided for in the Company's employee benefit plans or as otherwise expressly required by applicable law. Following the execution and delivery by Executive of the General Release substantially in form and substance as set forth in Exhibit B attached hereto, the Company agrees not to disparage Executive; provided, however, the Company shall be permitted to pursue any and all legal remedies against Executive to the extent the Company reasonably believes that Executive failed to comply with the law, this Agreement, the Company's Code of Conduct, the Company's employee handbook or other policies applicable to its employees.

(c) If the Employment Period is (i) terminated by the Company for Cause or (ii) terminated by the Executive without Good Reason (as defined below), Executive shall only be entitled to receive his Base Salary and benefits through the date of termination and shall not be entitled to any other salary, compensation or benefits from the Company or its Subsidiaries thereafter, except as otherwise specifically provided for under the Company's employee benefit plans or as otherwise expressly required by applicable law. The termination of the Employment Period for Cause shall preclude Executive's resignation with Good Reason. If this Agreement is terminated due to the Executive's death or Disability, Executive shall only be entitled to receive (a) his Base Salary through the date of termination, (b) any benefits the Executive's eligible family members are entitled to under COBRA, and (c) at the sole discretion of the Board, a pro-rata portion (based on the number of days Executive was employed during the fiscal year in which the death or disability occurred) of any annual target bonus (other than under the Bonus Plan) Executive would have been entitled to for such fiscal year, had the Employment Period not been terminated during such year, payable at the time Executive would have been entitled to receive such bonus had the Employment Period not been terminated. The Board shall retain full discretionary authority to determine whether any such bonus is paid, and the size thereof, pursuant to this Section 4(c) in effect based upon the Company's performance as well as Executive's contribution toward business objectives as demonstrated by the achievement of functional/individual goals.

(d) Except as otherwise expressly provided herein, all of Executive's rights to salary, bonuses, employee benefits and other compensation hereunder which would have accrued or become payable after the termination of the Employment Period shall cease upon such termination, other than those expressly required under applicable law (such as COBRA). Except as provided in Section 20(d), the Company may offset any amounts Executive owes it, to the extent agreed by the Company and Executive or determined pursuant to the arbitration as set forth in Section 17 or by a final order of a court of competent jurisdiction, against any amounts the Company owes Executive hereunder.

(e) Effective upon the termination of the Employment Period for any reason, including termination by the Company with or without Cause or Executive's resignation with or without Good Reason, Executive shall resign from all director, officer and other fiduciary positions Executive may then hold with the Company and its Subsidiaries and shall deliver to the Board a resignation letter to such effect on the date of such termination.

(f) For purposes of this Agreement, "Cause" shall mean with respect to Executive one or more of the following: (i) the commission of a felony or other crime involving moral turpitude or the commission of any other act or omission involving dishonesty, disloyalty or fraud with respect to the Company or any of its Subsidiaries or any of their customers or suppliers, (ii) repeatedly reporting to work under the influence of alcohol or illegal drugs, the use of illegal drugs in the workplace or other repeated conduct causing the Company or any of its Subsidiaries substantial public disgrace or disrepute or substantial economic harm, (iii) substantial and repeated failure to perform duties as reasonably directed by the Board or the President and Chief Executive Officer which is not cured to the Company's reasonable satisfaction within thirty (30) days after written notice thereof to Executive, (iv) any act or omission aiding or abetting a competitor, supplier or customer of the Company or any of its Subsidiaries to the material disadvantage or detriment of the Company and its Subsidiaries, (v) breach of fiduciary duty, gross negligence or willful misconduct with respect to the Company or any of its Subsidiaries, (vi) any breach of the Proprietary Rights and Confidentiality Agreement, dated as of the date hereof, between the Executive and GTAT Corp., or any material breach of this Agreement or any other agreement between the Company and Executive, or (vii) any other material breach of this Agreement which is not cured to the Company's reasonable satisfaction within thirty (30) days after written notice thereof to Executive.

(g) For purposes of this Agreement, "Disability" shall mean Executive's inability to perform the essential duties, responsibilities and functions of his position with the Company and its Subsidiaries for a period of ninety (90) consecutive days or for a total of 180 days during any 12-month period as a result of any mental or physical illness, disability or incapacity even with reasonable accommodations for such illness, disability or incapacity provided by the Company and its Subsidiaries or if providing such accommodations would be unreasonable, all as determined by an independent medical doctor chosen by the President and Chief Executive Officer and reasonably acceptable to Executive or his personal representative. Executive shall cooperate in all respects with the Company if a question arises as to whether he has become disabled (including, without limitation, submitting to reasonable examinations by one or more medical doctors and other health care specialists selected by the Company and authorizing such medical doctors and other health care specialists to discuss Executive's condition with the Company).

(h) For purposes of this Agreement, "Good Reason" shall mean if Executive resigns from employment with the Company and its Subsidiaries prior to the end of the Employment Period as a result of the occurrence of one or more of the following events: (i) the Company reduces the amount of the Base Salary (other than as a result of a general across-the-board salary reduction applicable to all senior executives of the Company) or elects to eliminate the Bonus Plan without permitting Executive to participate in an annual incentive bonus plan in place of the Bonus Plan which offers a potential bonus payment comparable to that earnable at 100% of plan target by Executive under the Bonus Plan, or (ii) the Company changes Executive's title and reduces his responsibilities or authority in a manner materially inconsistent with that of the position of Vice President and Chief Operating Officer; provided that in order for Executive's resignation for Good Reason to be effective hereunder, Executive must provide written notice to the Company stating Executive's intent to resign for Good Reason and the grounds therefor within thirty (30) days after such grounds exist and grant the Company thirty (30) days from receipt of such notice to remedy or otherwise remove the grounds supporting Executive's resignation for Good Reason.

5. Executive's Representations. Executive hereby represents and warrants to the Company that (i) the execution, delivery and performance of this Agreement by Executive do not and shall not conflict with, breach, violate or cause a default under any contract, agreement, instrument, order, judgment or decree to which Executive is a party or by which he is bound, (ii) Executive is not a party to or bound by any employment agreement, noncompete agreement or confidentiality agreement with any other person or entity and (iii) upon the execution and delivery of this Agreement by the Company, this Agreement shall be the valid and binding obligation of Executive, enforceable in accordance with its terms. Executive hereby acknowledges and represents that he has consulted with independent legal counsel regarding his rights and obligations under this Agreement and that he fully understands the terms and conditions contained herein.

6. Survival. The rights and obligations of the parties under this Agreement shall survive as provided herein or if necessary or desirable to accomplish the purposes of other surviving provisions following the termination of Executive's employment with the Company, regardless of the manner of or reasons for such termination.

7. Notices. All notices, requests and other communications hereunder must be in writing and will be deemed to have been duly given only if delivered personally against written receipt or by facsimile transmission against facsimile confirmation or mailed by prepaid first

class certified mail, return receipt requested, or mailed by overnight courier prepaid, to the parties hereto at the following addresses or facsimile numbers:

Notices to Executive:

Dan Squiller
6686 Merwell St.
San Diego, CA 92122

Notices to the Company:

GT Advanced Technologies Inc.
20 Trafalgar Square
Nashua, NH 03063
Facsimile: (603) 598-0430
Attn: General Counsel

All such notices, requests and other communications will (a) if delivered personally to the address as provided in this Section 7 or by facsimile transmission to the facsimile number as provided for in this Section 7, be deemed given on the day so delivered, or, if delivered after 5:00 p.m. local time or on a day other than a Saturday, Sunday or any day on which banks located in the State of New York are authorized or obligated to close (a "Business Day"), then on the next proceeding Business Day, (b) if delivered by mail in the manner described above to the address as provided in this Section 7, be deemed given on the earlier of the third Business Day following mailing or upon receipt and (c) if delivered by overnight courier to the address as provided for in this Section 7, be deemed given on the earlier of the first Business Day following the date sent by such overnight courier or upon receipt, in each case regardless of whether such notice, request or other communication is received by any other Person to whom a copy of such notice is to be delivered pursuant to this Section 7. Any party hereto from time to time may change its address, facsimile number or other information for the purpose of notices to that party by giving notice specifying such change to the other party hereto.

8. Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement or any action in any other jurisdiction, but this Agreement shall be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

9. Complete Agreement. This Agreement, those documents expressly referred to herein and other documents of even date herewith embody the complete agreement and understanding among the parties and supersede and preempt any prior understandings, agreements or representations by or among the parties, written or oral, which may have related to the subject matter hereof in any way.

10. No Strict Construction. The language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any party.

11. Counterparts. This Agreement may be executed in separate counterparts, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

12. Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by Executive, the Company and their respective heirs, successors and assigns, except that Executive may not assign his rights or delegate his duties or obligations hereunder without the prior written consent of the Company.

13. Choice of Law. All issues and questions concerning the construction, validity, enforcement and interpretation of this Agreement and the exhibits and schedules hereto shall be governed by, and construed in accordance with, the laws of the State of New Hampshire, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of New Hampshire or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of New Hampshire. In furtherance of the foregoing, the internal law of the State of New Hampshire shall control the interpretation and construction of this Agreement (and all schedules and exhibits hereto), even though under that jurisdiction's choice of law or conflict of law analysis, the substantive law of some other jurisdiction would ordinarily apply.

14. Amendment and Waiver. The provisions of this Agreement may be amended or waived only with the prior written consent of the Company and Executive, and no course of conduct or course of dealing or failure or delay by any party hereto in enforcing or exercising any of the provisions of this Agreement (including, without limitation, the Company's right to terminate the Employment Period for Cause) shall affect the validity, binding effect or enforceability of this Agreement or be deemed to be an implied waiver of any provision of this Agreement.

15. Insurance. The Company may, at its discretion, apply for and procure in its own name and for its own benefit life and/or disability insurance on Executive in any amount or amounts considered advisable. Executive agrees to cooperate in any medical or other examination, supply any information and execute and deliver any applications or other instruments in writing as may be reasonably necessary to obtain and constitute such insurance. Executive hereby represents that he has no reason to believe that his life is not insurable at rates now prevailing for healthy men of his age.

16. Indemnification and Reimbursement of Payments on Behalf of Executive. The Company and its Subsidiaries shall be entitled to deduct or withhold from any amounts owing from the Company or any of its Subsidiaries to Executive any federal, state, local or foreign withholding taxes, excise tax or employment taxes ("Taxes") imposed with respect to Executive's compensation or other payments from the Company or any of its Subsidiaries or Executive's ownership interest in the Company (including, without limitation, wages, bonuses, dividends, the receipt or exercise of equity options and/or the receipt or vesting of restricted

equity). In the event the Company or any of its Subsidiaries does not make such deductions or withholdings, Executive shall indemnify the Company and its Subsidiaries for any amounts paid with respect to any such Taxes, together with any interest, penalties and related expenses thereto.

17. Arbitration. Each party hereto agrees that the arbitration procedure set forth in Exhibit C hereto shall be the sole and exclusive method for resolving any claim or dispute ("Claim") arising out of or relating to the rights and obligations acknowledged and agreed to in this Agreement and the employment of Executive by the Company and its Subsidiaries (including, without limitation, disputes and claims regarding employment discrimination, sexual harassment, termination and discharge), whether such Claim arose or the facts on which such Claim is based occurred prior to or after the execution and delivery of adoption of this Agreement. Except as set forth in Exhibit C hereto, the parties agree that the result of any arbitration hereunder shall be final, conclusive and binding on all of the parties. Nothing in this Section 17 shall prohibit a party hereto from instituting litigation to enforce any Final Determination (as defined in Exhibit C hereto).

18. Corporate Opportunity. Executive shall submit to the Board all business, commercial and investment opportunities, or offers presented to Executive or of which Executive becomes aware at any time during the Employment Period which relate to the business of the Company or its Subsidiaries ("Corporate Opportunities"). Unless approved by the Board, Executive shall not accept or pursue, directly or indirectly, any Corporate Opportunities on Executive's own behalf.

19. Executive's Cooperation. During the Employment Period and thereafter, Executive shall cooperate with the Company and its Subsidiaries in any internal investigation, any administrative, regulatory or judicial investigation or proceeding or any dispute with a third party as reasonably requested by the Company (including, without limitation, Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's request to give testimony without requiring service of a subpoena or other legal process, volunteering to the Company all pertinent information and turning over to the Company all relevant documents which are or may come into Executive's possession, all at times and on schedules that are reasonably consistent with Executive's other permitted activities and commitments). In the event the Company requires Executive's cooperation in accordance with this Section 19, the Company shall reimburse Executive solely for reasonable travel expenses (including lodging and meals) upon submission of receipts.

20. 409A Provisions. Notwithstanding any other provision herein:

(a) The parties hereto intend that payments and benefits under this Agreement comply with or be exempt from Section 409A and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith or exempt therefrom. In no event whatsoever shall the Company be liable for any additional tax, interest or penalty that may be imposed on Executive by Section 409A or damages for failing to comply with Section 409A.

(b) For all purposes of this Agreement, references herein to "termination," "termination of the Employment Period," "resignation" or other terms of similar import shall in each case mean a "separation from service" within the meaning of Section 409A.

(c) For purposes of Section 409A, Executive's right to receive any installment payment pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments.

(d) In no event shall any payment under this Agreement that constitutes nonqualified deferred compensation subject to Section 409A, as determined by the Board of Directors in its sole discretion, be subject to offset unless otherwise permitted by Section 409A.

(e) To the extent that reimbursements or other in-kind benefits under this Agreement constitute "nonqualified deferred compensation" for purposes of Code Section 409A, (i) all expenses or other reimbursements hereunder shall be made on or prior to the last day of the taxable year following the taxable year in which such expenses were incurred by Executive, (ii) any right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit, and (iii) no such reimbursement, expenses eligible for reimbursement, or in-kind benefits provided in any taxable year shall in any way affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year.

* * * * *

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first written above.

GT ADVANCED TECHNOLOGIES INC.

By: /s/ Hoil Kim
Name: Hoil Kim
Its: Vice President and General Counsel

/s/ Dan Squiller
Dan Squiller

[Signature page to Squiller Employment Agreement]

EXHIBIT A-1

Exhibit Intentionally Omitted.

EXHIBIT A-2

Exhibit Intentionally Omitted.

EXHIBIT B

Exhibit Intentionally Omitted

EXHIBIT C

Exhibit Intentionally Omitted

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Thomas Gutierrez, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GT Advanced Technologies Inc.;

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

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

4. The registrant's other certifying officer 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.

Date: November 7, 2012

/s/ THOMAS GUTIERREZ

Thomas Gutierrez
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Richard J. Gaynor, certify that:

1. I have reviewed this quarterly report on Form 10-Q of GT Advanced Technologies Inc.;

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

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

4. The registrant's other certifying officer 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.

Date: November 7, 2012

/s/ RICHARD J. GAYNOR

Richard J. Gaynor
Vice President and Chief Financial Officer

Exhibit 32

CERTIFICATION OF CEO AND CFO PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of GT Advanced Technologies Inc. (the "Company") on Form 10-Q for the three months ended September 29, 2012, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned Chief Executive Officer and Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 7, 2012

/s/ THOMAS GUTIERREZ
Thomas Gutierrez
President and Chief Executive Officer

Date: November 7, 2012

/s/ RICHARD J. GAYNOR
Richard J. Gaynor
Vice President and Chief Financial Officer