AXT INC
Form 10-Q
August 07, 2015

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

FORM 10-Q

(Mark One)

Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

for the quarterly period ended June 30, 2015

Or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

for the transition period from to

Commission File Number 000-24085

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

DELAWARE	94-3031310
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification No.)

4281 Technology Drive, Fremont, California 94538
(Address of principal executive offices) (Zip code)

(510) 683-5900
(Registrant's telephone number, including area code)

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 Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit 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 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

Indicate the number of shares outstanding of each of the issuer’s classes of common stock, as of the latest practicable date.

Class	Outstanding at August 3, 2015
Common Stock, $0.001 par value	32,631,249

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited)

AXT, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands, except per share data)

	June 30, 2015	December 31, 2014
ASSETS		
Current assets:		
Cash and cash equivalents	$28,640	$28,814
Short-term investments	3,932	12,340
Accounts receivable, net of allowances of $1,041 and $823 as of June 30, 2015 and December 31, 2014	19,312	17,864
Inventories	38,901	38,574
Related party notes receivable - current	174	171
Prepaid expenses and other current assets	3,481	5,430
Total current assets	94,440	103,193
Long-term investments	13,699	7,783
Property, plant and equipment, net	33,366	33,862
Related party notes receivable – long-term	1,711	1,704
Other assets	15,000	14,975
Total assets	$158,216	$161,517
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$7,323	$7,137
Accrued liabilities	6,043	7,634
Total current liabilities	13,366	14,771
Long-term portion of royalty payments	1,438	1,725
Other long-term liabilities	332	333
Total liabilities	15,136	16,829
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 2,000 shares authorized; 883 shares issued and outstanding as of June 30, 2015 and December 31, 2014 (Liquidation preference of $6.4 million and $6.3 million as of June 30, 2015 and December 31, 2014.)	3,532	3,532
Common stock, $0.001 par value; 70,000 shares authorized; 32,631 and 32,837 shares issued and outstanding as of June 30, 2015 and December 31, 2014.	32	32
Additional paid-in-capital	194,714	195,419
Accumulated deficit	(69,420)	(68,393)
Accumulated other comprehensive income	7,586	7,673
Total AXT, Inc. stockholders' equity	136,444	138,263
Noncontrolling interests	6,636	6,425
Total stockholders' equity	143,080	144,688
Total liabilities and stockholders' equity	$158,216	$161,517

See accompanying notes to condensed consolidated financial statements.

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AXT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Revenue	$21,010	$21,449	$41,074	$40,794
Cost of revenue	16,625	17,289	31,940	33,916
Gross profit	4,385	4,160	9,134	6,878
Operating expenses:				
Selling, general and administrative	3,775	3,688	9,026	7,124
Research and development	1,389	987	2,630	1,762
Restructuring charge	—	—	—	907
Total operating expenses	5,164	4,675	11,656	9,793
Loss from operations	(779)	(515)	(2,522)	(2,915)
Interest income, net	108	127	205	254
Equity in earnings of unconsolidated joint ventures	410	625	610	1,112
Other income, net	626	476	1,259	486
Income (loss) before provision for income taxes	365	713	(448)	(1,063)
Provision for income taxes	241	152	327	211
Net income (loss)	124	561	(775)	(1,274)
Less: Net income attributable to noncontrolling interests	(127)	(242)	(252)	(447)
Net income (loss) attributable to AXT, Inc.	$(3)	$319	$(1,027)	$(1,721)
Net income (loss) attributable to AXT, Inc. per common share:				
Basic	$(0.00)	$0.01	$(0.03)	$(0.06)
Diluted	$(0.00)	$0.01	$(0.03)	$(0.06)
Weighted average number of common shares outstanding:				
Basic	32,242	32,381	32,399	32,407
Diluted	32,242	32,597	32,399	32,407

See accompanying notes to condensed consolidated financial statements.

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AXT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited, in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Net income (loss)	$124	$561	$(775)	$(1,274)
Other comprehensive income (loss), net of tax:				
Change in foreign currency translation gain (loss), net of tax	67	81	305	(440)
Change in unrealized gain (loss) on available-for-sale investments, net of tax	(91)	149	(350)	139
Total other comprehensive income (loss), net of tax	(24)	230	(45)	(301)
Comprehensive income (loss)	100	791	(820)	(1,575)
Less: Comprehensive income attributable to the noncontrolling interest	(137)	(251)	(294)	(377)
Comprehensive income (loss) attributable to AXT, Inc.	$(37)	$540	$(1,114)	$(1,952)

See accompanying notes to condensed consolidated financial statements.

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AXT, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Six Months Ended June 30,	
	2015	2014
Cash flows from operating activities:		
Net loss	$ (775)	$ (1,274)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	2,808	2,819
Amortization of marketable securities premium	113	245
Stock-based compensation	740	589
Provision for doubtful accounts	211	9
Realized gain on sale of investments	(859)	—
Loss (gain) on disposal of property, plant and equipment	9	(10)
Loss (gain) on equity investments, net	(610)	(1,112)
Changes in assets and liabilities:		
Accounts receivable, net	(1,630)	(4,396)
Inventories	(262)	3,783
Prepaid expenses and other current assets	1,954	3,300
Other assets	258	386
Accounts payable	166	(1,500)
Accrued liabilities	(1,602)*	148 *
Other long-term liabilities	(269)	(407)
Net cash provided by operating activities	252	2,580
Cash flows from investing activities:		
Purchases of property, plant and equipment	(2,174)	(600)
	2	10

Proceeds from sales of property, plant and equipment		
Purchases of available-for-sale securities	(8,664)	(3,728)
Proceeds from sales and maturities of available-for-sale securities	11,752	2,922
Investments in non-marketable equity investments	(162)	—
Return of equity method investments	286	327
Net cash provided by (used in) investing activities	1,040	(1,069)
Cash flows from financing activities:		
Proceeds from common stock options exercised	76	6
Repurchases of the Company’s common stock, including commission	(1,521)	—
Dividends paid by consolidated joint ventures	(80)	(83)
Net cash used in financing activities	(1,525)	(77)
Effect of exchange rate changes on cash and cash equivalents	59	(88)
Net increase (decrease) in cash and cash equivalents	(174)	1,346
Cash and cash equivalents at the beginning of the period	28,814	24,961
Cash and cash equivalents at the end of the period	$ 28,640	$ 26,307

* Dividend accrued but not paid by joint ventures of $566 and $647 was included in accrued liabilities as of June 30, 2015 and June 30, 2014, respectively.

See accompanying notes to condensed consolidated financial statements.

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AXT, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Basis of Presentation

The accompanying condensed consolidated financial statements of AXT, Inc. ("AXT," the "Company," "we," "us," and "our" refer to AXT, Inc. and all of its consolidated subsidiaries) are unaudited, and have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, the year-end condensed consolidated balance sheet data was derived from our audited consolidated financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States of America. In the opinion of our management, the unaudited condensed consolidated financial statements reflect all adjustments, consisting only of normal recurring adjustments, considered necessary to present fairly the financial position, results of operations and cash flows of AXT and our consolidated subsidiaries for all periods presented.

Our management has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ materially from those estimates.

The results of operations are not necessarily indicative of the results to be expected in the future or for the full fiscal year. It is recommended that these condensed consolidated financial statements be read in conjunction with our consolidated financial statements and the notes thereto included in our 2014 Annual Report on Form 10-K filed with the Securities and Exchange Commission (the "SEC") on March 13, 2015 and our Quarterly Report on Form 10-Q for the three months ended March 31, 2015 filed with the SEC on May 8, 2015.

The consolidated financial statements include the accounts of AXT, our wholly-owned subsidiary, Beijing Tongmei Xtal Technology Co., Ltd., and our majority-owned subsidiaries, Beijing JiYa Semiconductor Material Co., Ltd., Nanjing Jin Mei Gallium Co., Ltd. and Beijing BoYu Semiconductor Vessel Craftwork Technology Co., Ltd. All significant inter company accounts and transactions have been eliminated. Investments in business entities in which we do not have control, but have the ability to exercise significant influence over operating and financial policies (generally 20-50% ownership), are accounted for by the equity method. For majority-owned subsidiaries, we reflect the noncontrolling interest of the portion we do not own on our condensed consolidated balance sheets in stockholders' equity and in our condensed consolidated statements of operations.

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Note 2. Investments and Fair Value Measurements

Our cash and cash equivalents consist of cash and instruments with original maturities of less than 90 days. Our investments consist of instruments with original maturities of more than 90 days. As of June 30, 2015 and December 31, 2014, our cash, cash equivalents and investments are classified as follows (in thousands):

	June 30, 2015				December 31, 2014			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized (Loss)	Fair Value	Amortized Cost	Gross Unrealized Gain	Gross Unrealized (Loss)	Fair Value
Classified as:								
Cash	$17,337	$ —	$ —	$17,337	$22,337	$ —	$ —	$22,337
Cash equivalents:								
Certificates of deposit [1]	11,303	—	—	11,303	6,454	—	—	6,454
Money market fund	—	—	—	—	23	—	—	23
Total cash and cash equivalents	28,640	—	—	28,640	28,814	—	—	28,814
Investments (available for sale):								
Certificates of deposit [2]	8,105	1	(16)	8,090	10,195	1	(13)	10,183
Corporate bonds	9,006	—	(40)	8,966	9,214	1	(29)	9,186
Corporate equity securities	200	375	—	575	44	710	—	754
Total investments	17,311	376	(56)	17,631	19,453	712	(42)	20,123
Total cash, cash equivalents and investments	$45,951	$ 376	$ (56)	$46,271	$48,267	$ 712	$ (42)	$48,937
Contractual maturities on investments:								
Due within 1 year	$3,560			$3,932	$11,631			$12,340
Due after 1 through 5 years	13,751			13,699	7,822			7,783
	$17,311			17,631	$19,453			$20,123

1. Certificate of deposit with original maturities of less than 90 days.
2. Certificate of deposit with original maturities of more than 90 days.

We manage our investments as a single portfolio of highly marketable securities that is intended to be available to meet our current cash requirements. We have no investments in auction rate securities. Certificates of deposit and corporate bonds are typically held until maturity. Corporate equity securities have no maturity and may be sold at any time. Our holding of corporate equity securities consist of the common stock of Intelligent Epitaxy Technology, Inc. (“IntelliEpi”) and GCS Holdings, Inc. (“GHI”) (previously Global Communication Semiconductors, Inc), both Taiwan publicly-traded companies. We began classifying IntelliEpi stock as an available-for-sale security upon its initial public offering in 2013. During the three months ended June 30, 2015, we sold all of our remaining IntelliEpi stock. From this, our cash proceeds from sales of available-for-sale investments was $515,000. Our cost was $23,000 and our gross realized gain from sales of available-for-sale investments was $492,000. During the six months ended June 30, 2015, our cash proceeds from sales of available-for-sale investments was $902,000. Our cost was $43,000 and our gross realized gain from sales of available-for-sale investments was $859,000. During the three months and six months ended June 30, 2014, our cash proceeds was $346,000, our cost was $22,000 and our gross realized gain was $324,000.

Also included in available-for-sale investments at June 30, 2015 is our investment in the common stock of GHI. We began classifying this asset as an available-for-sale security during the three months ended June 30, 2015 when we determined that there was sufficient trading volume in the exchange for the stock to be deemed readily marketable. An

unrealized gain of $375,000 net of tax was recorded as of June 30, 2015. These securities are valued at fair market value at June 30, 2015 and will be marked to market with changes through other comprehensive income until sold. There is no assurance that we will realize this value when the securities are sold in the future.

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The gross unrealized losses related to our portfolio of available-for-sale securities were primarily due to changes in interest rates and market and credit conditions of the underlying securities. We have determined that the gross unrealized losses on some of our available-for-sale securities as of June 30, 2015 are temporary in nature. We periodically review our investment portfolio to identify and evaluate investments that have indications of possible impairment. Factors considered in determining whether a loss is temporary include the magnitude of the decline in market value, the length of time the market value has been below cost (or adjusted cost), credit quality, and our ability and intent to hold the securities for a period of time sufficient to allow for any anticipated recovery in market value.

A portion of our investments would generate a loss if we sold them on June 30, 2015. The following table summarizes the fair value and gross unrealized losses related to available-for-sale securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position as of June 30, 2015 (in thousands):

As of June 30, 2015	In Loss Position < 12 months		In Loss Position > 12 months		Total In Loss Position	
	Fair Value	Gross Unrealized (Losses)	Fair Value	Gross Unrealized (Losses)	Fair Value	Gross Unrealized (Losses)
Investments:						
Certificates of deposit	$6,410	$ (15)	$1,199	$ (1)	$7,609	$ (16)
Corporate bonds	8,966	(40)	—	—	8,966	(40)
Total in loss position	$15,376	$ (55)	$1,199	$ (1)	$16,575	$ (56)

The following table summarizes the fair value and gross unrealized losses related to available-for-sale securities, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position as of December 31, 2014 (in thousands):

As of December 31, 2014	In Loss Position < 12 months		In Loss Position > 12 months		Total In Loss Position	
	Fair Value	Gross Unrealized (Loss)	Fair Value	Gross Unrealized (Loss)	Fair Value	Gross Unrealized (Loss)
Investments:						
Certificates of deposit	$4,492	$ (13)	$—	$ —	$4,492	$ (13)
Corporate bonds	3,770	(27)	4,309	(2)	8,079	(29)
Total in loss position	$8,262	$ (40)	$4,309	$ (2)	$12,571	$ (42)

Investments in Privately-held Companies

We have made strategic investments in private companies located in China in order to gain access at a competitive cost to raw materials that are critical to our substrate business (see Note 6). The investment balances for all of these companies, including minority investments indirectly in privately-held companies made by our consolidated subsidiaries, accounted for under the equity method are included in “other assets” in the consolidated balance sheets and totaled $12.6 million and $12.1 million as of June 30, 2015 and December 31, 2014, respectively.

As noted above, in June, 2015, we re-classified our minority investment in one company, which was accounted for under the cost method, as available-for- sale short-term investments and written-up to market value. As of June 30, 2015, we no longer maintain any investments under the cost method. As of December 31, 2014, our investments in this unconsolidated company had a carrying value of $200,000 and were included in “other assets” in the condensed consolidated balance sheets.

Fair Value Measurements

ASC topic 820, Fair value measurement ("ASC 820") establishes three levels of inputs that may be used to measure fair value. Level 1 instrument valuations are obtained from real-time quotes for transactions in active exchange markets of the asset or identical assets. Level 2 instrument valuations are obtained from readily-available pricing sources for comparable instruments. Level 3 instrument valuations are obtained from unobservable inputs in which there is little or no market data, which require us to develop our own assumptions. On a recurring basis, we measure certain financial assets and liabilities at fair value, primarily consisting of our short-term and long-term investments.

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The type of instrument valued based on quoted market prices in active markets include our money market funds, which are generally classified within Level 1 of the fair value hierarchy. Other than corporate equity securities which are based on quoted market prices and classified as Level 1, we classify our available-for-sale securities including certificates of deposit, corporate bonds as having Level 2 inputs. The valuation techniques used to measure the fair value of these financial instruments having Level 2 inputs were derived from quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency.

We place short-term foreign currency hedges that are intended to offset the potential cash exposure related to fluctuations in the exchange rate between the United States dollar and Japanese yen. We measure the fair value of these foreign currency hedges at each month end and quarter end using current exchange rates and in accordance with generally accepted accounting principles. At quarter end any foreign currency hedges not settled are netted in “accrued liabilities” on the consolidated balance sheet and classified as Level 3 assets and liabilities. As of June 30, 2015 the net change in fair value from the placement of the hedge to settlement at each month end during the quarter had a de minimis impact to the consolidated results.

There were no changes in valuation techniques or related inputs in the three months ended June 30, 2015. There have been no transfers between fair value measurements levels during the three months ended June 30, 2015.

The following table summarizes our financial assets and liabilities measured at fair value on a recurring basis in accordance with ASC 820 as of June 30, 2015 (in thousands):

	Balance as of June 30, 2015	Quoted Prices in Active Markets of Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents and investments:				
Certificates of deposit	$19,393	$ —	$ 19,393	$ —
Corporate bonds	8,966	—	8,966	—
Corporate equity securities	575	575	—	—
Total	$28,934	$ 575	$ 28,359	$ —
Liabilities:				
Foreign currency hedge obligations	$29	$ —	$ —	$ 29

The following table summarizes our financial assets and liabilities measured at fair value on a recurring basis in accordance with ASC 820 as of December 31, 2014 (in thousands):

	Balance as of December 31, 2014	Quoted Prices in Active Markets of Identical Assets	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)

		(Level 1)		
Assets:				
Cash equivalents and investments:				
Money market fund	$ 23	$ 23	$ —	$ —
Certificates of deposit	10,183	—	10,183	—
Corporate bonds	9,186	—	9,186	—
Corporate equity securities	754	754	—	—
Total	$ 20,146	$ 777	$ 19,369	$ —
Liabilities	$ —	$ —	$ —	$ —

Items Measured at Fair Value on a Nonrecurring Basis

Certain assets that are subject to nonrecurring fair value measurements are not included in the table above. These assets include investments in privately-held companies accounted for by equity and cost method (See Note 6). We did not record other-than-temporary impairment charges for either of these investments during the three months ended June 30, 2015 or 2014.

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Note 3. Inventories

The components of inventories are summarized below (in thousands):

	June 30, 2015	December 31, 2014
Inventories:		
Raw materials	$20,549	$ 18,990
Work in process	15,847	16,222
Finished goods	2,505	3,362
	$38,901	$ 38,574

As of June 30, 2015 and December 31, 2014, carrying values of inventories were net of inventory reserve of $11.4 million and $11.2 million, respectively, for excess and obsolete inventory.

Note 4. Accrued Liabilities

The components of accrued liabilities are summarized below (in thousands):

	June 30, 2015	December 31, 2014
Accrued compensation and related charges	$1,694	$ 2,656
Current portion of royalty payments	688	800
Accrued product warranty	668	802
Accrued professional services	418	509
Dividends payable by consolidated joint ventures	566	563
Accrued income taxes	279	119
Other accrued liabilities	1,730	2,185
	$6,043	$ 7,634

Note 5. Related Party Transactions

In August 2011, our consolidated joint venture, Beijing JiYa Semiconductor Material Co., Ltd. (“JiYa”), entered into a non-interest bearing note agreement in the amount of $1.7 million for a loan to one of its equity investment entities. The original term of the loan was for two years and ten months with three periodic principal payments required. After various amendments to the terms of the note, in December 2013 the parties agreed to delay all principal repayment until December 2016. As of June 30, 2015, and December 31, 2014, we included $1.7 million in “Related party notes receivable – long term” in our condensed consolidated balance sheets.

JiYa also purchases raw materials from one of its equity investment entities for production in the ordinary course of business. As of June 30, 2015 and December 31, 2014, amounts payable of $2.0 million and $1.8 million, respectively, were included in “accounts payable” in our condensed consolidated balance sheets.

JiYa also sells raw materials to one of its equity investment entities for production in the ordinary course of business. As of June 30, 2015 and December 31, 2014, amounts receivable of $518,000 and 350,000, respectively, were included in “accounts receivable” in our condensed consolidated balance sheets.

Beginning in 2012, our consolidated joint venture, Nanjing Jin Mei Gallium Co., Ltd. ("Jin Mei"), is contractually obligated under an agency sales agreement to sell raw material on behalf of its equity investment entity. Jin Mei bills the customers and remits the receipts, net of its portions of sales commission, to this equity investment entity. For the three months ended June 30, 2015 and 2014, Jin Mei has recorded $0 and $10,000 income from agency sales, respectively, which were included in "other income (expense), net" in the consolidated statements of operations. For the six months ended June 30, 2015 and 2014, Jin Mei has recorded $1,000 and $16,000 income from agency sales, respectively, which were included in "other income (expense), net" in the condensed consolidated statements of operations.

In March 2012, our wholly-owned subsidiary, Beijing Tongmei Xtal Technology Co., Ltd. ("Tongmei"), entered into an operating lease for the land it owns with our consolidated joint venture Beijing BoYu Semiconductor Vessel Craftwork Technology Co., Ltd. The lease agreement for the land of approximately 22,081 square feet commenced on January 1, 2012 for a term of 10 years with annual lease payments of $24,000 subject to a 5% increase at each third year anniversary. The annual lease payment is due by January 31 of each year.

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Tongmei has paid $121,000 on behalf of Donghai County Dongfang High Purity Electronic Materials Co., Ltd.("Dongfang"), its equity investment entity, to purchase materials. In 2014, an agreement was signed between Tongmei and Dongfang to set the date of repayment on December 31, 2015. As of June 30, 2015, this balance was included in "Related party notes receivable – short term" in our condensed consolidated balance sheets.

In April 2014, Tongmei loaned an additional of $49,000 to Dongfang. The loan bears interest at 6.15% per annum and the principal and interest totaling $53,000 as of June 30, 2015 is due on December 31, 2015. As of June 30, 2015, this balance, including both principal and interest, was included in "Related party notes receivable – short term" in our condensed consolidated balance sheets.

Tongmei also purchases raw materials from Dongfang for production in the ordinary course of business. As of June 30, 2015 and December 31, 2014, amounts payable of $117,000 and $0, respectively, were included in "accounts payable" in our condensed consolidated balance sheets.

Tongmei also purchases raw materials from one of our equity investment entities for production in the ordinary course of business. As of June 30, 2015 and December 31, 2014, amounts payable of $293,000 and $513,000, respectively, were included in "accounts payable" in our condensed consolidated balance sheets.

Beijing Kaide Quartz Co. Ltd. ("Kaide") has been a supplier of customized quartz tubes to the Company since 2004. Beijing XiangHeMing Trade Co. Ltd., ("XiangHeMing") is a significant shareholder of Kaide. XiangHeMing was previously owned by, among others, certain immediate family members of Davis Zhang, our former President, China Operations, until at least sometime in 2004, at which time the official Chinese government records indicate that Mr. Zhang's immediate family members transferred their ownership of XiangHeMing to a third party. However, we are currently unable to conclusively determine whether Mr. Zhang's immediate family members retained any economic interest in XiangHeMing after the transfer. As of June 30, 2015 and December 31 2014, amounts payable of $116,000 and $730,000, respectively, were included in "accounts payable" in our condensed consolidated balance sheets.

Our Related Party Transactions Policy seeks to prohibit all conflicts of interest in transactions between related parties and us, unless they have been approved by our Board of Directors. This policy applies to all of our employees and directors, our subsidiaries and our joint ventures. Our executive officers retain board seats on the board of directors of the companies in which we have invested in our China joint ventures. See Note 6 for further details.

Note 6. Investments in Companies

We have made strategic investments in private companies located in China in order to gain access at a competitive cost to raw materials that are critical to our substrate business. These companies form part of our overall supply chain.

The investments are summarized below (in thousands):

Company	Investment Balance as of June 30, 2015	December 31, 2014	Accounting Method	Ownership Percentage	
Beijing JiYa Semiconductor Material Co., Ltd.	$3,331	$ 3,331	Consolidated	46	%
Nanjing Jin Mei Gallium Co., Ltd.	592	592	Consolidated	83	%
Beijing BoYu Semiconductor Vessel Craftwork Technology Co., Ltd.	1,346	1,346	Consolidated	70	%
	$5,269	$ 5,269			
Donghai County Dongfang High Purity Electronic Materials Co., Ltd.	$1,652	$ 1,723	Equity	46	%

Xilingol Tongli Germanium Co. Ltd.	5,556	5,351	Equity	25	%
Emeishan Jia Mei High Purity Metals Co., Ltd.	1,043	1,021	Equity	25	%
	$8,251	$ 8,095			

Our ownership of Beijing JiYa Semiconductor Material Co., Ltd. (“JiYa”) is 46%. We continue to consolidate JiYa as we have significant influence in management and have majority control of the board. Our Chief Executive Officer is chairman of the JiYa board and we have appointed one other representative to serve on the board.

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Our ownership of Nanjing Jin Mei Gallium Co., Ltd. ("Jin Mei") is 83%. We continue to consolidate Jin Mei as we have significant influence in management and have majority control of the board. Our Chief Executive Officer is chairman of the Jin Mei board and we have appointed two other representatives to serve on the board.

Our ownership of Beijing BoYu Semiconductor Vessel Craftwork Technology Co., Ltd ("BoYu") is 70%. We continue to consolidate BoYu as we have a significant influence in management and have majority control of the board. Our Chief Executive Officer is chairman of the BoYu board and we have appointed two other representatives to serve on the board.

Although we have representation on the boards of directors of each of these companies, the daily operations of each of these companies are managed by local management and not by us. Decisions concerning their respective short-term strategy and operations, any capacity expansion and annual capital expenditures, and decisions concerning sales of finished product, are made by local management with some inputs from us.

During the three months ended June 30, 2015 and 2014, the three consolidated joint ventures generated $0.6 million and $1.1 million of income, respectively, of which $127,000 and $242,000, respectively, were allocated to minority interests, resulting in $520,000 and $847,000 of income, respectively, to our net income (loss). During the six months ended June 30, 2015 and 2014, the three consolidated joint ventures generated $1.2 million and $1.8 million of income, respectively, of which $252,000 and $447,000, respectively, were allocated to minority interests, resulting in $947,000 and $1.4 million of income, respectively, to our net income (loss).

For the three minority investment entities that are not consolidated, the investment balances are included in "other assets" in our condensed consolidated balance sheets and totaled $8.3 million and $8.1 million as of June 30, 2015 and December 31, 2014. We own 46% of the ownership interests in one of these companies and 25% in each of the other two companies. These three companies are not considered variable interest entities because:

- all three companies have sustainable businesses of their own;
- our voting power is proportionate to our ownership interests;
- we only recognize our respective share of the losses and/or residual returns generated by the companies if they occur; and
- we do not have controlling financial interest in, do not maintain operational or management control of, do not control the board of directors of, and are not required to provide additional investment or financial support to any of these companies.

We also maintain minority investments indirectly in privately-held companies through our consolidated joint ventures. These minority investments are accounted for under the equity method in the books of our consolidated joint ventures. As of June 30, 2015 and December 31, 2014, our consolidated joint ventures included these minority investments in "other assets" in the consolidated balance sheets with a carrying value of $4.4 million and $4.0 million, respectively.

The minority investment entities that are not consolidated are accounted for under the equity method and had the following summarized income information (in thousands) for the three and six months ended June 30, 2015 and 2014.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014

Net revenue	$11,004	$13,466	$20,329	$26,946
Gross profit	3,625	8,124	5,920	12,087
Operating income	2,292	3,424	3,343	6,088
Net income	1,784	2,607	2,741	4,726

Our portion of the entity earnings from the minority investment entities that are not consolidated and are accounted for under the equity method were $410,000 and $625,000 for the three months ended June 30, 2015 and 2014, respectively, and $610,000 and $1.1 million for the six months ended June 30, 2015 and 2014, respectively.

During the three months ended June 30, 2015, we re-classified our minority investments under the cost method as an available-for- sale security when we deemed that there was sufficient trading volume in the exchange for the stock to be deemed readily marketable. As of June 30, 2015, we no longer maintain any investments under the cost method. As of December 31, 2014, our investments in this unconsolidated company had a carrying value of $200,000 and were included in “other assets” in the condensed consolidated balance sheets.

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Note 7. Stockholders' Equity

Consolidated Statement of Changes in Equity
(in thousands)

	Preferred Stock	Common Stock	Additional Paid In Capital	Accumulated Deficit	Other Comprehensive Income/(loss)	AXT, Inc. stockholders' equity	Noncontrolling interests	Total stockholders' equity
Balance as of December 31, 2014	$ 3,532	$ 32	$ 195,419	$ (68,393)	$ 7,673	$ 138,263	$ 6,425	$ 144,688
Common stock options exercised			76			76		76
Common stock repurchased			(1,521)			(1,521)		(1,521)
Stock-based compensation			740			740		740
Net (loss) income				(1,027)		(1,027)	252	(775)
Dividends declared by joint ventures							(83)	(83)
Change in unrealized (loss) gain on marketable securities					(350)	(350)		(350)
Currency translation adjustment					263	263	42	305
Balance as of June 30, 2015	$ 3,532	$ 32	$ 194,714	$ (69,420)	$ 7,586	$ 136,444	$ 6,636	$ 143,080

There were no reclassification adjustments from accumulated other comprehensive income for the six months ended June 30, 2015 and 2014.

Stock Repurchase Program

On February 21, 2013, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $6.0 million of our outstanding common stock through February 27, 2014. These purchases can be made from time to time in the open market and are funded from our existing cash balances and cash generated from operations. During 2013, we repurchased approximately 285,000 shares at an average price of $2.51 per share for a total purchase price of $716,000 under the stock repurchase program. As of December 31, 2013, approximately $5.3 million remained available for future repurchases under this program. No shares were repurchased in 2014 under this program and the plan expired on February 27, 2014.

On October 27, 2014, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $5.0 million of our outstanding common stock. These repurchases can be made from time to time in the open market and are funded from our existing cash balances and cash generated from operations. During the three months ended June 30, 2015, we repurchased approximately 353,000 shares at an average price of $2.56 per share for a total purchase price of $904,000 under the stock repurchase program. During the six months ended June 30, 2015, we repurchased approximately 583,000 shares at an average price of $2.61 per share for a total purchase price of $1.5 million under the stock repurchase program. As of June 30, 2015, approximately $3.5 million remained available for future repurchases under this program. See Item 2, Unregistered Sales of Equity Securities and Use of Proceeds in Part II, Other Information, for additional information.

Note 8. Stock-Based Compensation

We account for stock-based compensation in accordance with the provisions of FASB Accounting Standards Codification (“ASC”) topic 718, Compensation-Stock Compensation (“ASC 718”), which established accounting for stock-based awards exchanged for employee services. Stock-based compensation cost is measured at each grant date, based on the fair value of the award, and is recognized as expense over the employee’s requisite service period of the award. All of our stock compensation is accounted for as an equity instrument.

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The following table summarizes compensation costs related to our stock-based awards (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Cost of revenue	$5	$5	$10	$10
Selling, general and administrative	417	245	642	489
Research and development	44	47	88	90
Total stock-based compensation	466	297	740	589
Tax effect on stock-based compensation	—	—	—	—
Net effect on net income (loss)	$466	$297	$740	$589

As of June 30, 2015, the unamortized compensation costs related to unvested stock options granted to employees under our stock option plan was approximately $1.2 million, net of estimated forfeitures of $68,000. These costs will be amortized on a straight-line basis over a weighted-average period of approximately 2.5 years and will be adjusted for subsequent changes in estimated forfeitures. We elected not to capitalize any stock-based compensation to inventory as of June 30, 2015 due to the immateriality of the amount.

We estimate the fair value of stock options using the Black-Scholes valuation model, consistent with the provisions of ASC 718. There were 20,000 and 52,000 options granted with weighted average grant date fair values of $0.48 and $1.10 in the three and six months ended June 30, 2015 and 2014, respectively. The fair value of our stock options granted to employees for the three and six months ended June 30, 2015 was estimated using the following weighted-average assumptions:

	Three Months Ended June 30, 2015	Six Months Ended June 30, 2015
Expected term (in years)	1.0	1.0
Volatility	54.21 %	54.21 %
Expected dividend	0 %	0 %
Risk-free interest rate	1.86 %	1.86 %

The following table summarizes the stock option transactions during the six months ended June 30, 2015 (in thousands, except per share data):

Stock Options	Shares	Weighted-average Exercise Price	Weighted-average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Balance as of January 1, 2015	3,198	$ 3.12	6.95	$ 1,247

Granted	20	2.51		
Exercised	(54)	1.40		
Canceled and expired	(62)	3.86		
Balance as of June 30, 2015	3,102	$ 3.13	5.54	$ 659
Options vested as of June 30, 2015 and unvested options expected to vest, net of forfeitures	3,102	$ 3.13	5.54	$ 659
Options exercisable as of June 30, 2015	1,998	$ 3.44	4.38	$ 547

The aggregate intrinsic value in the table above represents the total pretax intrinsic value, based on our closing price of $2.52 on June 30, 2015, which would have been received by the option holder had all option holders exercised their options on that date.

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Restricted stock awards

A summary of activity related to restricted stock awards for the six months ended June 30, 2015 is presented below (in thousands, except per share data):

Stock Awards	Shares	Weighted-Average Grant Date Fair Value
Non-vested as of January 1, 2015	261	$ 2.71
Granted	336	$ 2.56
Vested	(118)	$ 2.65
Forfeited	(13)	$ 2.34
Non-vested as of June 30, 2015	466	$ 2.63

As of June 30, 2015, the unamortized compensation costs related to unvested restricted stock awards was approximately $1.1 million, which is to be amortized on a straight-line basis over a weighted average period of approximately 1.8 years.

Note 9. Net Income (Loss) Per Share

Basic net income (loss) per share is computed using the weighted-average number of common shares outstanding during the periods less shares of common stock subject to repurchase and non-vested stock awards. Diluted net income (loss) per share is computed using the weighted-average number of common shares outstanding and potentially dilutive common shares outstanding during the periods. The dilutive effect of outstanding stock options and restricted stock awards is reflected in diluted earnings per share by application of the treasury stock method. Potentially dilutive common shares consist of common shares issuable upon the exercise of stock options. Potentially dilutive common shares are excluded in net loss periods, as their effect would be anti-dilutive.

A reconciliation of the numerators and denominators of the basic and diluted net income (loss) per share calculations is as follows (in thousands, except per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Numerator:				
Net income (loss) attributable to AXT, Inc.	$(3)	$319	$(1,027)	$(1,721)
Less: Preferred stock dividends	(44)	(44)	(88)	(88)
Net income (loss) available to common stockholders	$(47)	$275	$(1,115)	$(1,809)
Denominator:				
Denominator for basic net income (loss) per share - weighted average common shares	32,242	32,381	32,399	32,407
Effect of dilutive securities:				
Common stock options	—	195	—	—
Restricted stock awards	—	22	—	—
Denominator for dilutive net income (loss) per common share	32,242	32,597	32,399	32,407
Net income (loss) attributable to AXT, Inc. per common share:				
Basic	$(0.00)	$0.01	$(0.03)	$(0.06)
Diluted	$(0.00)	$0.01	$(0.03)	$(0.06)

Options excluded from diluted net income (loss) per share as the impact is anti-dilutive	3,102	1,782	3,102	2,645
Restricted stock excluded from diluted net income (loss) per share as the impact is anti-dilutive	466	93	466	266

The 883,000 shares of $0.001 par value Series A preferred stock issued and outstanding as of June 30, 2015 and December 31, 2014, valued at $3,532,000, are non-voting and non-convertible preferred stock with a 5.0% cumulative annual dividend rate payable when declared by the board of directors and a $4 per share liquidation preference over common stock, which must be paid before any distribution is made to common stockholders. These preferred shares were issued to Lyte Optronics, Inc. stockholders in connection with the completion of our acquisition of Lyte Optronics, Inc. on May 28, 1999.

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Note 10. Segment Information and Foreign Operations

Segment Information

We operate in one segment for the design, development, manufacture and distribution of high-performance compound semiconductor substrates and sale of materials. In accordance with ASC topic 280, Segment Reporting, our chief operating decision-maker has been identified as our Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the Company. Since we operate in one segment, all financial segment and product line information can be found in the condensed consolidated financial statements.

The following table represents revenue amounts (in thousands) reported for products shipped to customers in the corresponding geographic region:

	Three Months Ended June 30,		Six Months Ended June 30	
	2015	2014	2015	2014
Geographical region:				
Europe (primarily Germany)	$5,664	$4,968	$10,607	$11,551
China	3,561	4,960	6,858	9,125
Taiwan	3,414	2,785	6,523	4,900
North America (primarily the United States)	2,850	2,829	6,322	4,609
Asia Pacific (excluding China, Taiwan and Japan)	2,768	2,450	5,527	4,839
Japan	2,753	3,457	5,237	5,770
Total	$21,010	$21,449	$41,074	$40,794

Long-lived assets consist primarily of property, plant and equipment, and are attributed to the geographic location in which they are located. Long-lived assets by geographic region were as follows (in thousands):

	As of	
	June 30, 2015	December 31, 2014
Long-lived assets by geographic region:		
North America	$1,114	$ 136
China	32,252	33,726
	$33,366	$ 33,862

Significant Customers

One customer represented more than 10% of our revenue for the three months ended June 30, 2015 while no customer represented more than 10% of our revenue for the three months ended June 30, 2014. No customer represented more than 10% of our revenue for the six months ended June 30, 2015 and 2014. Our top five customers, although not the same five customers for each period, represented 37% of our revenue for the three months ended June 30, 2015 and 2014. Our top five customers, although not the same five customers for each period, represented 36% and 35% of our revenue for the six months ended June 30, 2015 and 2014, respectively.

We perform ongoing credit evaluations of our customers' financial condition, and limit the amount of credit extended when deemed necessary, but generally do not require collateral. Two customers, although not the same two customers, accounted for 11% and 10% of our accounts receivable balance as of June 30, 2015 and December 31, 2014.

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Note 11. Commitments and Contingencies

Indemnification Agreements

We have entered into indemnification agreements with our directors and officers that require us to indemnify our directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of a culpable nature; to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified; and to obtain directors' and officers' insurance if available on reasonable terms, which we currently have in place.

Product Warranty

We provide warranties for our products for a specific period of time, generally twelve months, against material defects. We provide for the estimated future costs of warranty obligations in cost of sales when the related revenue is recognized. The accrued warranty costs represent the best estimate at the time of sale of the total costs that we expect to incur to repair or replace product parts that fail while still under warranty. The amount of accrued estimated warranty costs are primarily based on historical experience as to product failures as well as current information on repair costs. On a quarterly basis, we review the accrued balances and update the historical warranty cost trends. The following table reflects the change in our warranty accrual which is included in "accrued liabilities" on the condensed consolidated balance sheets, during the three and six months ended June 30, 2015 and 2014 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Beginning accrued warranty and related costs	$392	$1,227	$802	$1,048
Accruals for warranties issued	411	81	585	577
Adjustments related to pre-existing warranties including expirations and changes in estimates	42	(199)	(252)	(302)
Cost of warranty repair	(177)	(129)	(467)	343
Ending accrued warranty and related costs	$668	$980	$668	$980

Contractual Obligations

We lease certain office space, warehouse facilities and equipment under long-term operating leases expiring at various dates through December 2025. The majority of our lease obligations relates to our lease agreement for the facility in Fremont, California with approximately 19,467 square feet.

We entered into a royalty agreement with a competitor effective December 3, 2010 with a term of eight years, terminating December 31, 2018. We and our related companies are granted a worldwide, nonexclusive, royalty bearing, irrevocable license to certain patents for the term on the agreement. We shall pay a total of $7.0 million of royalty payments over eight years that began in 2011 based on future royalty bearing sales. This agreement contains a clause that allows us to claim a credit, starting in 2013, in the event that the royalty bearing sales for the year are lower than a pre-determined amount set forth in this agreement.

Outstanding contractual obligations as of June 30, 2015 are summarized as follows (in thousands):

	Payments due by period		
Contractual Obligations	Total	1-3	4-5

		Less than 1 year	years	years	More than 5 years
Operating leases	$639	$222	$258	$54	$105
Royalty agreement	2,125	688	1,150	287	—
Total	$2,764	$910	$1,408	$341	$105

Purchase Obligations with Penalties for Cancellation

In the normal course of business, we issue purchase orders to various suppliers. In certain cases, we may incur a penalty if we cancel the purchase order. As of June 30, 2015, we do not have any outstanding purchase orders that will incur a penalty if cancelled by the Company.

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Legal Proceedings

From time to time we may be involved in judicial or administrative proceedings concerning matters arising in the ordinary course of business. We do not expect that any of these matters, individually or in the aggregate, will have a material adverse effect on our business, financial condition, cash flows or results of operations.

Note 12. Foreign Exchange Transaction Gains/Losses

We incurred foreign currency transaction exchange gains of $30,000 and $158,000 for the three months ended June 30, 2015 and 2014, respectively. We incurred foreign currency transaction exchange gains of $210,000 and $175,000 for the six months ended June 30, 2015 and 2014, respectively. These amounts are included in “other income (expense), net” on our condensed consolidated statements of operations.

Note 13. Income Taxes

We account for income taxes in accordance with ASC topic 740, Income Taxes (“ASC 740”) which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. ASC 740 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized.

In accordance with Section 382 of the Internal Revenue Code, the amounts of and benefits from net operating loss and tax credit carryforwards may be impaired or limited in certain circumstances. Events which cause limitations in the amount of net operating losses or credits that we may utilize in any one year include, but are not limited to, a cumulative ownership change of more than 50% as defined, over a three year period. As a result of the implementation of Interpretation 48, we recognized $16.4 million of liability for unrecognized tax benefits. Of this amount, none was accounted for as a reduction to balance of retained earnings. The amount decreased tax loss carryforwards in the U.S., which are fully offset by a valuation allowance.

We recognize interest and penalties related to uncertain tax positions in income tax expense. Income tax expense for the three month ended June 31, 2015 includes no interest and penalties. As of June 31, 2015, we have no accrued interest and penalties related to uncertain tax positions. We file income tax returns in the U.S. federal, various states and foreign jurisdictions. We have substantially concluded all U.S. federal and state income tax matters through December 31, 2013.

Provision for income taxes for three and six months ended June 30, 2015 and 2014 was mostly related to our wholly owned China subsidiary and our three partially owned subsidiaries in China. We have made a tax election in China whereby certain minimum foreign withholding taxes are treated as an expense and not a tax credit. Besides the state taxes liabilities, no federal income tax benefit or expense has been provided for the three and six months ended June 30, 2015 and 2014 due to our net loss, our valuation allowance being utilized and uncertainty of future profits in the U.S.

Note 14. Whistleblower Complaint and Investigation

On February 23, 2015, the Board of Directors announced that, pursuant to an anonymous whistleblower complaint, our Audit Committee has conducted an investigation of certain potential related-party transactions involving Davis Zhang, our former President, China Operations. The investigation did not conclude that there was any intentional misconduct by Mr. Zhang, or that he received any improper benefit from these transactions. Further, the investigation did not reveal any inaccuracies in our financial statements resulting from these transactions. However, the investigation identified certain historical related-party transactions that were not previously disclosed in our filings with the Securities and Exchange Commission (“SEC”). We have filed a Current Report on Form 8-K with the SEC on

February 23, 2015 to disclose such historical related-party transactions.

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On February 20, 2015, the Board waived any potential inconsistencies with our Code of Conduct and Ethics arising from the transactions identified in the investigation. Also, the Audit Committee approved the related-party nature of such transactions to the extent it had not previously approved such transactions. The Board and Audit Committee specified that such waiver and approval would have retroactive effect to the date of commencement of the transactions covered by such waiver and approval. We have incurred approximately $1.8 million of professional service fees during the course of this investigation.

Note 15. Recent Accounting Pronouncements

In May 2014, as part of its ongoing efforts to assist in the convergence of U.S. GAAP and International Financial Reporting Standards (“IFRS”), FASB issued ASU 2014-09, “Revenue from Contracts with Customers.” The new guidance sets forth a new five-step revenue recognition model which replaces the prior revenue recognition guidance in its entirety and is intended to eliminate numerous industry-specific pieces of revenue recognition guidance that have historically existed in U.S. GAAP. The underlying principle of the new standard is that a business or other organization will recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects what it expects in exchange for the goods or services. The standard also requires more detailed disclosures and provides additional guidance for transactions that were not addressed completely in the prior accounting guidance. The ASU provides alternative methods of initial adoption and is effective for annual and interim periods beginning after December 15, 2016. We are currently evaluating the impact that this standard will have on our consolidated financial statements.

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

This quarterly report on Form 10-Q, including the following sections, contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, particularly statements relating to our expectations regarding results of operations, customer demand, our ability to expand our markets and increase sales, industry trends, customer qualifications of our products, gross margins, the impact of the adoption of certain accounting pronouncements, our investments in capital projects, our belief that we have adequate cash and investments to meet our needs over the next 12 months, and our ability to continue to manufacture gallium arsenide substrate wafers. These forward-looking statements are based upon management's current views with respect to future events and financial performance, and are subject to certain risks and uncertainties that could cause actual results to differ materially from historical results or those anticipated in such forward-looking statements. Such risks and uncertainties include those set forth under the section entitled "Risk Factors" below, which identify important factors that could cause actual results to differ materially from those predicted in any such forward-looking statements. We caution investors that actual results may differ materially from those projected in the forward-looking statements as a result of certain risk factors identified in this Form 10-Q and other filings we have made with the Securities and Exchange Commission. Forward-looking statements may be identified by the use of terms such as "anticipates," "believes," "estimates," "expects," "intends," and similar expressions. Statements concerning our future or expected financial results and condition, business strategy and plans or objectives for future operations are forward-looking statements.

These forward-looking statements are not guarantees of future performance. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. We undertake no obligation to revise or update any forward looking statements in order to reflect any event or circumstance that may arise after the date of this report. Readers are urged to carefully review and consider the various disclosures made in this report, which attempt to advise interested parties of the risks and factors that may affect our business, financial condition, results of operations and prospects. This discussion should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2014 and the condensed consolidated financial statements included elsewhere in this report.

Overview

AXT is a worldwide developer and producer of high-performance compound and single element semiconductor substrates, also known as wafers. The dominant substrates used in producing semiconductor chips are made from silicon. However, certain chips may become too hot or perform their function too slowly if silicon is used as the base material. Alternative or specialty materials are used to replace silicon as the preferred base for the electronic circuit in these situations. We provide such alternative or specialty materials in the form of substrates or wafers, including compound and single element substrates. Our compound substrates combine gallium with arsenic (GaAs) or combine indium with phosphorous (InP). Our single element substrates are made from germanium (Ge). Most of our revenue is from sales of GaAs substrates. We currently sell the following substrate products in the sizes and for the applications indicated:

Product Substrates	Diameter	Applications
GaAs (semi-insulating)	1", 2", 3", 4", 5", 6"	· Power amplifiers and radio frequency integrated circuits for wireless handsets (cell phones) · Direct broadcast television · High-performance transistors · Satellite communications
	1", 2", 3", 4", 6"	High brightness light emitting diodes

GaAs (semi-conducting)		· Lasers · Optical couplers
InP	2”, 3”, 4”	· Broadband and fiber optic communications
Ge	2”, 4”, 6”	· Satellite and terrestrial solar cells · Optical applications

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We manufacture all of our semiconductor substrates using our proprietary vertical gradient freeze (VGF) technology. We manufacture all of our products in the People's Republic of China (PRC or China), which generally has favorable costs for facilities and labor compared with comparable facilities in the United States, Europe or Japan. Our supply chain includes AXT subsidiaries and joint ventures in China. We believe this supply chain arrangement provides us pricing advantages, reliable supply and enhanced sourcing lead-times for key raw materials which are central to our final manufactured products. Our subsidiaries and joint ventures produce products including 99.99% pure gallium (4N Ga), high purity gallium, arsenic, germanium, germanium dioxide, pyrolytic boron nitride (pBN) crucibles and boron oxide (B2O3). Our ownership and the ownership by our consolidated subsidiaries in these entities range from 20% to 83%. We consolidate, for accounting purposes, the joint ventures in which we have majority or controlling financial interest and significant influence on management, and employ equity accounting for the joint ventures in which we have a smaller ownership interest. We purchase portions of the materials produced by these joint ventures for our own use and the joint ventures sell the remainder of their production to third parties. We use our direct sales force in the United States and China, and independent sales representatives in Europe and other parts of Asia to market and sell our substrates.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. Accordingly, we make estimates, assumptions and judgments that affect the amounts reported on our consolidated financial statements. These estimates, assumptions and judgments about future events and their effects on our results cannot be determined with certainty, and are made based upon our historical experience and on other assumptions that are believed to be reasonable under the circumstances. These estimates may change as new events occur or additional information is obtained, and we may periodically be faced with uncertainties, the outcomes of which are not within our control and may not be known for a prolonged period of time.

We have identified the policies below as critical to our business operations and understanding of our financial condition and results of operations. Critical accounting policies are material to the presentation of our consolidated financial statements and require us to make difficult, subjective or complex judgments that could have a material effect on our financial condition and results of operations. They may require us to make assumptions about matters that are highly uncertain at the time of the estimate. Different estimates that we could have used, or changes in the estimate that are reasonably likely to occur, may have a material impact on our financial condition or results of operations.

Revenue Recognition

We manufacture and sell high-performance compound semiconductor substrates and sell certain raw materials including gallium, germanium dioxide, and pBN crucibles. After we ship our products, there are no remaining obligations or customer acceptance requirements that would preclude revenue recognition. Our products are typically sold pursuant to a purchase order placed by our customers, and our terms and conditions of sale do not require customer acceptance. We recognize revenue upon shipment and transfer of title of products to our customers, which is either upon shipment from our dock, receipt at the customer's dock, or removal from consignment inventory at the customer's location, provided that we have received a signed purchase order, the price is fixed or determinable, title and risk of ownership have transferred, collection of resulting receivables is probable, and product returns are reasonably estimable. We do not provide training, installation or commissioning services.

We provide for future returns based on historical experience, current economic trends and changes in customer demand at the time revenue is recognized.

Accounts Receivable and Allowance for Doubtful Accounts

We periodically review the likelihood of collection on our accounts receivable balances and provide an allowance for doubtful accounts receivable primarily based upon the age of these accounts. We evaluate receivables from U.S. customers with an emphasis on balances in excess of 90 days and for receivables from customers located outside the U.S. with an emphasis on balances in excess of 120 days and establish a reserve allowance on the receivable balances if needed. The reason for the difference in the evaluation of receivables between foreign and U.S. customers is that U.S. customers have historically made payments in a shorter period of time than foreign customers. Foreign business practices generally require us to allow customer payment terms that are longer than those accepted in the United States. We assess the probability of collection based on a number of factors, including the length of time a receivable balance has been outstanding, our past history with the customer and their creditworthiness.

As of June 30, 2015 and December 31, 2014, our accounts receivable, net, balance was $19.3 million and $17.9 million, respectively, which was net of an allowance for doubtful accounts of $605,000 and $410,000, respectively. If actual uncollectible accounts differ substantially from our estimates, revisions to the estimated allowance for doubtful accounts would be required, which could have a material impact on our financial results for the future periods.

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The allowance for sales returns is also deducted from gross accounts receivable. As of June 30, 2015 and December 31, 2014, our allowance for sales returns was $436,000 and $413,000, respectively.

Warranty Reserve

We maintain a warranty reserve based upon our claims experience during the prior twelve months. Warranty costs are accrued at the time revenue is recognized. As of June 30, 2015 and December 31, 2014, accrued product warranties totaled $668,000 and $802,000, respectively. The decrease in accrued product warranties is primarily attributable to decreased claims for quality issues experienced by some customers. If actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability would be required, which could have a material impact on our financial condition and results of operations for future periods.

Inventory Valuation

Inventories are stated at the lower of cost or market. Cost is determined using the weighted-average cost method. Our inventory consists of raw materials as well as finished goods and work-in-process that include material, labor and manufacturing overhead costs. Given the nature of our substrate products, and the materials used in the manufacturing process, the wafers and ingots comprising work-in-process may be held in inventory for up to two years and three years, respectively, as the risk of obsolescence for these materials is low. We routinely evaluate the levels of our inventory in light of current market conditions in order to identify excess and obsolete inventory, and we provide a valuation allowance for certain inventories based upon the age and quality of the product and the projections for sale of the completed products. As of June 30, 2015 and December 31, 2014, we had an inventory reserve of $11.4 million and $11.2 million, respectively, for excess and obsolete inventory. If actual demand for our products were to be substantially lower than estimated, additional inventory adjustments for excess or obsolete inventory might be required, which could have a material impact on our business, financial condition and results of operations.

Impairment of Investments

We classify our investments in debt and equity securities as available-for-sale securities in accordance with ASC topic 320, Investments - Debt and Equity Securities (“ASC 320”). All available-for-sale securities with a quoted market value below cost (or adjusted cost) are reviewed in order to determine whether the decline is other-than-temporary. Factors considered in determining whether a loss is temporary include the magnitude of the decline in market value, the length of time the market value has been below cost (or adjusted cost), credit quality, and our ability and intent to hold the securities for a period of time sufficient to allow for any anticipated recovery in market value.

We invest in equity instruments of privately-held companies in China for business and strategic purposes. These investments are classified as other assets and are accounted for under the cost method as we do not have the ability to exercise significant influence over their operations. We monitor our investments for impairment and record reductions in carrying value when events or changes in circumstances indicate that the carrying value may not be recoverable. Determination of impairment is highly subjective and is based on a number of factors, including an assessment of the strength of investee’s management, the length of time and extent to which the fair value has been less than our cost basis, the financial condition and near-term prospects of the investee, fundamental changes to the business prospects of the investee, share prices of subsequent offerings, and our intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in our carrying value. We had no write downs for the three months ended June 30, 2015 or 2014.

Fair Value of Investments

ASC 820, Fair Value Measurement (“ASC 820”) establishes three levels of inputs that may be used to measure fair value.

Level 1 instruments represent quoted prices in active markets. Therefore, determining fair value for Level 1 instruments does not require significant management judgment, and the estimation is not difficult.

Level 2 instruments include observable inputs other than Level 1 prices, such as quoted prices for identical instruments in markets with insufficient volume or infrequent transactions (less active markets), issuer credit ratings, non-binding market consensus prices that can be corroborated with observable market data, model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated with observable market data for substantially the full term of the assets or liabilities, or quoted prices for similar assets or liabilities. These Level 2 instruments require more management judgment and subjectivity compared to Level 1 instruments, including:

- Determining which instruments are most similar to the instrument being priced requires management to identify a sample of similar securities based on the coupon rates, maturity, issuer, credit rating, and instrument type, and subjectively select an individual security or multiple securities that are deemed most similar to the security being priced.

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- Determining which model-derived valuations to use in determining fair value requires management judgment. When observable market prices for identical securities or similar securities are not available, we price our marketable debt instruments using non-binding market consensus prices that are corroborated with observable market data or pricing models, such as discounted cash flow models, with all significant inputs derived from or corroborated with observable market data.

Level 3 instruments include unobservable inputs to the valuation methodology that are significant to the measurement of fair value of assets or liabilities. The determination of fair value for Level 3 instruments requires the most management judgment and subjectivity.

There have been no transfers between fair value measurement levels during the three and six months ended June 30, 2015.

Impairment of Long-Lived Assets

We evaluate the recoverability of property, equipment and intangible assets in accordance with ASC topic 360, Property, Plant and Equipment ("ASC 360"). When events and circumstances indicate that long-lived assets may be impaired, we compare the carrying value of the long-lived assets to the projection of future undiscounted cash flows attributable to these assets. In the event that the carrying value exceeds the future undiscounted cash flows, we record an impairment charge against income equal to the excess of the carrying value over the assets' fair value. Fair values are determined based on quoted market values, discounted cash flows or internal and external appraisals, as applicable. We had no "Assets held for sale" on the condensed consolidated balance sheet as of June 30, 2015 or December 31, 2014.

Stock-based Compensation

We account for stock-based compensation in accordance with ASC topic 718, Stock-based Compensation ("ASC 718"). Share-based awards granted include stock options and restricted stock awards. We utilize the Black-Scholes option pricing model to estimate the grant date fair value of stock options, which requires the input of highly subjective assumptions, including estimating stock price volatility and expected term. Historical volatility of our stock price was used while the expected term for our options was estimated based on historical option exercise behavior and post-vesting forfeitures of options, and the contractual term, the vesting period and the expected term of the outstanding options. Further, we apply an expected forfeiture rate in determining the amount of share-based compensation. We use historical forfeitures to estimate the rate of future forfeitures. Changes in these inputs and assumptions can materially affect the measure of estimated fair value of our stock compensation. The cost of restricted stock awards is determined using the fair value of our common stock on the date of grant.

We recognize the compensation costs net of an estimated forfeiture rate over the requisite service period of the options award, which is generally the vesting term of four years. Compensation expense for restricted stock awards is recognized over the vesting period, which is generally three years or four years. Stock-based compensation expense is recorded in cost of revenue, research and development, and selling, general and administrative expenses.

Income Taxes

We account for income taxes in accordance with ASC topic 740, Income Taxes ("ASC 740") which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. ASC 740 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized.

We provide for income taxes based upon the geographic composition of worldwide earnings and tax regulations governing each region, particularly China. The calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws, particularly in foreign countries such as China.

See Note 13—“Income Taxes” in the notes to condensed financial statements for additional information.

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Results of Operations

Revenue

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Total revenue	$21,010	$21,449	$ (439)	(2.0%)

Revenue decreased $439,000, or 2.0%, to $21.0 million for the three months ended June 30, 2015 from $21.4 million for the three months ended June 30, 2014. The revenue decrease resulted from decreased demand for our substrate materials, particularly in the LED market. This decrease was partially offset by the increased demand for our InP substrates as a result of expanding applications in the marketplace, such as fiber optic lasers and data connectivity.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Total revenue	$41,074	$40,794	$ 280	0.7%

Revenue increased $280,000, or 0.7%, to $41.1 million for the six months ended June 30, 2015 from $40.8 million for the six months ended June 30, 2014. The revenue increase was primarily the result of an increase in InP revenue in 2015 as compared to the same period in the prior year. The InP revenue increase was the result of expanding applications in the marketplace, such as fiber optic lasers and data connectivity. In addition, our raw materials revenue increased as a result of stronger demand and our ability to respond quickly to short lead time requirements. The increase of revenue from InP and raw materials sales, however, was partially offset by the decreased demand for other substrate materials, particularly from our GaAs LED substrates customers.

Revenue by Geographic Region

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Europe (primarily Germany)	$5,664	$4,968	$ 696	14%
% of total revenue	27%	23%		
China	3,561	4,960	(1,399)	(28%)
% of total revenue	17%	23%		
Japan	2,753	3,457	(704)	(20%)
% of total revenue	13%	16%		
North America (primarily the United States)	2,850	2,829	21	1%
% of total revenue	14%	13%		
Taiwan	3,414	2,785	629	23%
% of total revenue	16%	13%		

Asia Pacific (excluding China, Taiwan and Japan)	2,768		2,450		318		13	%
% of total revenue	13	%	11	%				
Total revenue	21,010		$21,449		$ (439	)	(2	%)

Revenue by geographic region shows stronger growth in both Taiwan and Europe mainly from the increase in InP sales in the second quarter of 2015 as compared to same period in 2014. Revenue from customers in China and Japan decreased substantially primarily due to decreased in sales in our substrate revenue, particularly in the LED market.

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	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Europe (primarily Germany)	$10,607	$11,551	(944)	(8)%
% of total revenue	26%	28%		
China	6,858	9,125	(2,267)	(25)%
% of total revenue	17%	23%		
Japan	5,237	5,770	(533)	(9)%
% of total revenue	13%	14%		
North America (primarily the United States)	6,322	4,609	1,713	37%
% of total revenue	15%	11%		
Taiwan	6,523	4,900	1,623	33%
% of total revenue	16%	12%		
Asia Pacific (excluding China, Taiwan and Japan)	5,527	4,839	688	14%
% of total revenue	13%	12%		
Total revenue	$41,074	$40,794	$ 280	1%

Sales to customers in North America, Taiwan and Asia Pacific increased, mainly from the increase in InP sales in the six months ended 2015 as compared to same period in 2014. Revenue from customers in China decreased primarily due to decreased in sales in our substrate revenue, particularly in the LED market whereas revenue from customers in Europe decreased primarily due to decreased in sales in Ge substrate revenue.

Gross Margin

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Gross profit	$4,385	$4,160	$ 225	5.4%
Gross Margin %	20.9%	19.4%		

Gross margin increased to 20.9% of total revenue in the three months ended June 30, 2015 from 19.4% of total revenue in the three months ended June 30, 2014. Gross margin increased primarily due to lower raw material costs and change in product mix.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Gross profit	$9,134	$6,878	$ 2,256	32.8%
Gross Margin %	22.2%	16.9%		

Gross margin increased to 22.2% of total revenue in the six months ended June 30, 2015 from 16.9% of total revenue in the six months ended June 30, 2014. Gross margin increased primarily due to change in product mix, lower material

costs and continuation of a company-wide cost-saving campaign which was first implemented in 2014.

Selling, General and Administrative Expenses

	Three Months Ended June 30,		Increase (Decrease)	% Change
	2015	2014		
	($ in thousands)			
Selling, general and administrative expenses	$3,775	$3,688	$ 87	2.4 %
% of total revenue	18.0 %	17.2 %		

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Selling, general and administrative expenses increased $87,000, or 2.4% to $3.8 million for the three months ended June 30, 2015 from $3.7 million for the three months ended June 30, 2014. Selling, general and administrative expenses increased primarily due to an increase in allowance for accounts receivables and higher stock-based compensation expenses resulting from stock awards granted to our newly hired Chief Operating Officer in June 2015.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Selling, general and administrative expenses	$9,026	$7,124	$ 1,902	26.7 %
% of total revenue	22.0 %	17.5 %		

Selling, general and administrative expenses increased $1.9 million, or 26.7% to $9.0 million for the six months ended June 30, 2015 from $7.1 million for the three months ended June 30, 2014. The higher selling, general and administrative expenses resulted from an increase in professional services of $1.2 million related to an investigation of certain potential related-party transactions and higher stock-based compensation expenses resulting from stock awards granted to our newly hired Chief Operating Officer in June 2015.

Research and Development

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Research and development	$1,389	$987	$ 402	40.7 %
% of total revenue	6.6 %	4.6 %		

Research and development expenses increased $402,000, or 40.7% to $1.4 million for the three months ended June 30, 2015 from $987,000 for the three months ended June 30, 2014. The increase was primarily due to higher product development and testing costs and personnel-related costs.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Research and development	$2,630	$1,762	$ 868	49.3 %
% of total revenue	6.4 %	4.3 %		

Research and development expenses increased $868,000, or 49.3% to $2.6 million for the six months ended June 30, 2015 from $1.8 million for the six months ended June 30, 2014. The increase was primarily due to higher product development and testing costs and personnel-related costs.

Restructuring Charges

In the first quarter of 2014, we reduced the workforce at Tongmei by approximately 93 positions that were no longer required to support production and operations, or approximately 11% of the workforce. Accordingly, we recorded a restructuring charge of approximately $907,000 related to the reduction in force for severance-related expenses. As of March 31, 2014, we completed this restructuring plan and the reduction in force. We had no restructuring charges in the first six months of 2015.

Interest Income, Net

	Three Months Ended June 30,		Increase (Decrease)	% Change
	2015	2014		
	($ in thousands)			
Interest income, net	$108	$127	$ (19)	(15.0 %)
% of total revenue	0.5 %	0.6 %		

Interest income, net decreased $19,000 to $108,000 for the three months ended June 30, 2015 from $127,000 for the three months ended June 30, 2014. The decrease was primarily due to lower returns from our mix of investment securities held.

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	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Interest income, net	$205	$254	$ (49)	(19.29 %)
% of total revenue	0.5 %	0.6 %		

Interest income, net decreased $49,000 to $205,000 for the six months ended June 30, 2015 from $254,000 for the six months ended June 30, 2014. The decrease was primarily due to lower returns from our mix of investment securities held.

Equity in Earnings of Unconsolidated Joint Ventures

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Equity in earnings of unconsolidated joint ventures	$410	$625	$ (215)	(34.4 %)
% of total revenue	2.0 %	2.9 %		

Equity in earnings of unconsolidated joint ventures is primarily net income from our minority-owned joint ventures that are not consolidated. Equity in earnings of unconsolidated joint ventures decreased $215,000 to $410,000 for the three months ended June 30, 2015 from $625,000 for the three months ended June 30, 2014 due to lower net income from our minority-owned joint ventures that are not consolidated as a result of declining average selling prices in the raw materials businesses.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Equity in earnings of unconsolidated joint ventures	$610	$1,112	$ (502)	(45.1 %)
% of total revenue	1.5 %	2.7 %		

Equity in earnings of unconsolidated joint ventures is primarily net income from our minority-owned joint ventures that are not consolidated. Equity in earnings of unconsolidated joint ventures decreased $502,000 to $610,000 for the six months ended June 30, 2015 from $1.1 million for the six months ended June 30, 2014 due to lower net income from our minority-owned joint ventures that are not consolidated as a result of declining average selling prices in the raw materials businesses.

Other Income, Net

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Other income, net	$626	$476	$ 150	31.5 %
% of total revenue	3.0 %	2.2 %		

Other income, net increased $150,000 to $626,000 for the three months ended June 30, 2015 from $476,000 for the three months ended June 30, 2014 primarily due to a $167,000 higher gain recognized from the sale of common stock of Intelligent Epitaxy Technology, Inc ("IntelliEpi"), a Taiwan publicly traded company, in the second quarter of 2015 as compared to same period in 2014.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Other income, net	$1,259	$486	$ 773	159.1 %
% of total revenue	3.1 %	1.2 %		

Other income, net increased $773,000 to $1.3 million for the six months ended June 30, 2015 from $486,000 for the three months ended June 30, 2014 primarily due to a $535,000 higher gain recognized from the sale of common stock of Intelligent Epitaxy Technology, Inc ("IntelliEpi"), a Taiwan publicly traded company, in the six months ended June 30, 2015 as compared to the six months ended in 2014.

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Provision for Income Taxes

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Provision for income taxes	$241	$152	$ 89	58.6 %
% of total revenue	1.1 %	0.7 %		

Provision for income taxes for the three months ended June 30, 2015 was $241,000, which was mostly related to our consolidated subsidiaries in China. The increase in provision for income taxes from the three months ended June 30, 2014 to the three months ended June 30, 2015 was primarily due to increased sales and net income of our foreign subsidiaries. Besides the state tax liabilities, no income taxes or tax benefits have been provided for U.S. operations due to the loss in the U.S. and the uncertainty of generating future profit in the U.S. which has resulted in our deferred tax asset being fully reserved.

	Six Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Provision for income taxes	$327	$211	$ 116	55.0 %
% of total revenue	0.8 %	0.5 %		

Provision for income taxes for the six months ended June 30, 2015 was $327,000, which was mostly related to our consolidated subsidiaries in China. The increase in provision for income taxes from the six months ended June 30, 2014 to the six months ended June 30, 2015 was primarily due to increased sales and net income of our foreign subsidiaries. Besides the state tax liabilities, no income taxes or tax benefits have been provided for U.S. operations due to the loss in the U.S. and the uncertainty of generating future profit in the U.S. which has resulted in our deferred tax asset being fully reserved.

Noncontrolling Interest

	Three Months Ended June 30,		Increase	
	2015	2014	(Decrease)	% Change
	($ in thousands)			
Noncontrolling interest	$127	$242	$ (115)	(47.5)%
% of total revenue	0.6 %	1.1 %		

Net income attributable to the non-owned portion of our consolidated subsidiaries decreased $115,000, or 47.5% to $127,000 for the three months ended June 30, 2015 from $242,000 for the three months ended June 30, 2014 primarily due to lower profitability from our China joint venture operations as profits from raw materials sales have decreased due to decreased selling prices.

	Six Months Ended June 30,		Increase (Decrease)	% Change
	2015	2014		
	($ in thousands)			
Noncontrolling interest	$252	$477	$ (225)	(47.2)%
% of total revenue	0.6 %	2.2 %		

Net income attributable to non-owned portion of our consolidated subsidiaries decreased $225,000, or 47.2% to $252,000 for the six months ended June 30, 2015 from $477,000 for the six months ended June30, 2014 primarily due to lower profitability from our China joint venture operations as profits from raw materials sales have decreased due to decreased selling prices.

Liquidity and Capital Resources

We consider cash and cash equivalents, short-term investments and long-term investments as liquid and available for use within two years in our current operations. Short-term investments and long-term investments are comprised of U.S. government securities and investment-grade corporate notes and bonds. Also included in short-term investments is our investment in common stock of IntelliEpi and GHI. In 2013, we re-categorized our IntelliEpi investment from the cost method to short-term investments as IntelliEpi completed its initial public offering in 2013. In 2015, we re-categorized our GHI investment from the cost method to short-term investments when we deemed that there was sufficient trading volume in the exchange for the stock to be deemed readily marketable.

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As of June 30, 2015, our principal source of liquidity was $46.3 million, which consisted of cash and cash equivalents of $28.6 million, short-term investments of $3.9 million and long-term investments of $13.7 million. The decrease in cash and cash equivalents of $174,000 in the six months ended June 30, 2015 was primarily due to net cash provided by investing activities of $916,000, net cash provided by operating activities of $376,000 and the effect of exchange rate changes of $59,000, offset by net cash used in financing activities of $1.5 million. As of June 30, 2015, we and our consolidated joint ventures held approximately $16.0 million in cash and investments in foreign bank accounts. This consists of $10.1 million held by our wholly owned subsidiary in China and $5.9 million held by our three partially-owned consolidated subsidiaries in China. Of this $16.0 million, approximately $10.6 million would not be available for use in the United States without paying United States income taxes.

Cash and cash equivalents of $28.6 million decreased by $174,000 and short-term and long-term investments of $17.6 million decreased by $2.5 million during the six months ended June 30, 2015.

Net cash provided by operating activities of $252,000 for the six months ended June 30, 2015 was primarily comprised of adjusted for non-cash items of depreciation of $2.8 million, amortization of marketable securities premium of $113,000, stock-based compensation of $740,000, provision for doubtful account of $211,000, loss on disposal property and equipment of $9,000 offset by our net loss of $775,000, realized gain on sales of investments of $859,000, gain on equity investments of $610,000 and a net change of $1.4 million in assets and liabilities.

Net cash provided by operating activities of $2.6 million for the six months ended June 30, 2014 was primarily comprised of non-cash items of depreciation of $2.8 million, stock-based compensation of $589,000, a net change of $1.3 million in assets and liabilities and amortization of marketable securities premium of $245,000, offset by our net loss of $1.3 million and gain on equity investments of $1.1 million.

Net cash provided by investing activities of $1.0 million for the six months ended June 30, 2015 was primarily from the proceeds from maturities and sales of available-for-sales securities of $11.8 million, partially offset by net purchases of marketable investment securities of $8.7 million and the purchase of property, plant and equipment of $2.2 million.

Net cash used in investing activities of $1.1 million for the six months ended June 30, 2014 was primarily from the purchase of property, plant and equipment of $600,000 and the purchase of investments totaling $3.7 million offset by the maturities of investments totaling $2.9 million and return of equity method investments of $327,000.

Net cash used in financing activities was $1.5 million for the six months ended June 30, 2015, which consisted of $1.5 million for the repurchase of the Company’s common stock, including commission and fees and $80,000 net dividends paid by our joint ventures, partially offset by net proceeds of $76,000 on the issuance of common stock pursuant to stock option exercises.

Net cash used in financing activities of $77,000 for the six months ended June 30, 2014 consisted of $83,000 net dividends paid by our joint ventures, offset by net proceeds of $6,000 on the issuance of common stock pursuant to stock option exercises.

On February 21, 2013, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $6.0 million of our outstanding common stock through February 27, 2014. These purchases were to be made from time to time in the open market and were funded from our existing cash balances and cash generated from operations. During 2013, we repurchased approximately 285,000 shares at an average price of $2.51 per share for a total purchase price of $716,000 under the stock repurchase program. As of December 31, 2013, approximately $5.3 million remained available for future repurchases under this program. No shares were repurchased in 2014 under this program and the plan expired on February 27, 2014.

On October 27, 2014, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $5.0 million of our outstanding common stock. These repurchases can be made from time to time in the open market and are funded from our existing cash balances and cash generated from operations. During the three months ended June 30, 2015, we repurchased approximately 353,000 shares at an average price of $2.56 per share for a total purchase price of $904,000 under the stock repurchase program. During the six months ended June 30, 2015, we repurchased approximately 583,000 shares at an average price of $2.61 per share for a total purchase price of $1.5 million under the stock repurchase program. As of June 30, 2015, approximately $3.5 million remained available for future repurchases under this program. See Item 2, Unregistered Sales of Equity Securities and Use of Proceeds in Part II, Other Information, for additional information.

We believe that we have adequate cash and investments to meet our needs over the next 12 months. If our sales decrease, however, our ability to generate cash from operations will be adversely affected which could adversely affect our future liquidity, require us to use cash at a more rapid rate than expected, and require us to seek additional capital. There can be no assurance that such additional capital will be available or, if available it will be on terms acceptable to us.

Cash from operations could be affected by various risks and uncertainties, including, but not limited to those set forth below under Item 1A “Risks Factors.”

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Line of Credit

Prior to 2015, we had an unused credit facility with a bank that provided for a line of credit of $10.0 million. The line of credit was secured by marketable securities we had with the bank at that time. This line of credit was never used and there were no outstanding borrowings under this line of credit as of June 30, 2015 and December 31, 2014. This line of credit was terminated in January 2015 when we closed our investment account with this institution and moved all of our funds from this bank to a different bank.

Contractual Obligations and Operating Leases

We lease certain office space, warehouse facilities and equipment under long-term operating leases expiring at various dates through December 2025. The majority of our lease obligations relates to our lease agreement for the facility in Fremont, California with approximately 19,467 square feet.

We entered into a royalty agreement with a competitor effective December 3, 2010 with a term of eight years, terminating December 31, 2018. We and our related companies are granted a worldwide, nonexclusive, royalty bearing, irrevocable license to certain patents for the term on the agreement. We shall pay a total of $7.0 million royalty payment over eight years that began in 2011 based on future royalty bearing sales. This agreement contains a clause that allows us to claim for credit, starting in 2013, in the event that the royalty bearing sales for the year is lower than a pre-determined amount set forth in this agreement.

Outstanding contractual obligations as of June 30, 2015 are summarized as follows (in thousands):

	Payments due by period				
Contractual Obligations	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years
Operating leases	$639	$222	$258	$54	$105
Royalty agreement	2,125	688	1,150	287	—
Total	$2,764	$910	$1,408	$341	$105

Purchase orders or contracts for the purchase of certain goods and services are not included in the preceding table. We cannot determine the aggregate amount of such purchase orders that represent contractual obligations because purchase orders may represent authorizations to purchase rather than binding agreements. For the purposes of this table, contractual obligations for purchase of goods or services are defined as agreements that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transaction. Our purchase orders are based on our current needs and are fulfilled by our vendors within short time horizons. We also enter into contracts for outsourced services; however, the obligations under these contracts were not significant and the contracts generally contain clauses allowing for cancellation without significant penalty. Contractual obligations that are contingent upon the achievement of certain milestones are not included in the table above.

Off-Balance Sheet Arrangements

As of June 30, 2015, we did not have any off-balance sheet financing arrangements and have never established any special purpose entities as defined under SEC Regulation S-K Item 303(a)(4)(ii).

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Recent Accounting Pronouncements

For a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our condensed consolidated financial statements, please see “Note 15 - Recent Accounting Pronouncements” in the Notes to Condensed Consolidated Financial Statements of this Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Risk

A significant portion of our business is conducted in currencies other than the U.S. dollar. Foreign exchange losses have had a material adverse effect on our operating results and cash flows in the past could have a material adverse effect on our operating results and cash flows in the future. If we do not effectively manage the risks associated with this currency risk, our revenue, cash flows and financial condition could be adversely affected. During 2014, we recorded net foreign exchange losses of $1.0 million, included as part of other income (expense), net in our consolidated statements of operations. In addition, we recorded unrealized foreign currency charges of $377,000 related to financial statement translations which are included in the balance of “accumulated other comprehensive income” on our consolidated balance sheets. We incurred foreign currency transaction exchange gains and losses due to operations in general. In the future we may experience foreign exchange losses on our non-functional currency denominated receivables and payables to the extent that we have not mitigated our exposure. Foreign exchange losses could have a materially adverse effect on our operating results and cash flows.

Our product sales to Japanese customers are typically invoiced in Japanese yen. As such we have foreign exchange exposure on our accounts receivable and on any Japanese yen denominated cash deposits. In 2014 and the first half of 2015, the yen depreciated against the dollar. The major portion of our 2014 exchange loss is attributable to the yen’s movement.

To partially protect us against fluctuations in foreign currency resulting from accounts receivable in Japanese yen from our Japanese customers, starting in 2015, we instituted a foreign currency hedging program. We place short term hedges that are intended to offset the potential cash exposure related to fluctuations in the exchange rate between the United States dollar and Japanese yen. We measure the fair value of these hedges at each month end and quarter end using current exchange rates and in accordance with generally accepted accounting principles. At quarter end any foreign currency hedges not settled are netted on the consolidated balance sheet and classified as Level 3 assets and liabilities. As of June 30, 2015 the net change in fair value from the placement of the hedge to settlement at each month end during the quarter had a de minimis impact to the consolidated results.

The functional currency for our foreign operations is the Renminbi, the local currency of China and in the future we may establish short term hedges covering Renminbi. Most of our operations are conducted in China, most of our costs are incurred in Chinese Renminbi, which subjects us to fluctuations in the exchange rates between the U.S. dollar and the Chinese Renminbi. We incur transaction gains or losses resulting from consolidation of expenses incurred in local currencies for our Chinese subsidiaries, including our joint ventures, as well as in translation of the assets and liabilities at each balance sheet date. Our financial results could be adversely affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets, including the revaluation by China of the Renminbi, and any future adjustments that China may make to its currency such as any move it might make to a managed float system with opportunistic interventions. We may also experience foreign exchange losses on our non-functional currency denominated receivables and payables.

Although we currently are using a hedging program to minimize the effects of currency fluctuations relating to the Japanese yen and may apply this program to other currencies such as the Chinese Renminbi, our hedging position is partial, may not exist at all in the future and may not succeed in minimizing our foreign currency fluctuation risks.

The Company’s primary objective in holding these instruments is to reduce the volatility of earnings and cash flows associated with changes in foreign currency. The program is not designated for trading or speculative purposes.

Interest Rate Risk

Cash and cash equivalents earning interest and certain variable rate debt instruments are subject to interest rate fluctuations. The following table sets forth the probable impact of a 10% change in interest rates (in thousands):

Instrument	Balance as of June 30, 2015	Current Interest Rate	Projected Annual Interest Income/(Expense)	Proforma 10% Interest Rate Decline Income/(Expense)	Proforma 10% Interest Rate Increase Income/(Expense)
Cash and cash equivalent	$28,640	1.20 %	$ 344	$ 309	$ 378
Investment in debt and equity instruments	17,056	2.20 %	375	338	413
			$ 719	$ 647	$ 791

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The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. Financial instruments that potentially subject us to concentration of credit risk consist primarily of cash and cash equivalents, short-term investments, and trade accounts receivable. We invest primarily in money market accounts, certificates of deposits, corporate bonds and notes, and government securities. We are exposed to credit risks in the event of default by the issuers to the extent of the amount recorded on the consolidated balance sheets. These securities are generally classified as available-for-sale and consequently are recorded on the balance sheet at fair value with unrealized gains or losses reported as a separate component of accumulated other comprehensive income, net of estimated tax. Our cash, cash equivalents and short-term investments and long-term investments are in high-quality securities placed with major banks and financial institutions and commercial paper. We have no investments in auction rate securities.

Credit Risk

We perform ongoing credit evaluations of our customers' financial condition, and limit the amount of credit extended when deemed necessary, but generally do not require collateral. Two customers, although not the same two customers, accounted for 11% and 10% of our accounts receivable balance as of June 30, 2015 and December 31, 2014.

Equity Risk

We maintain minority investments in privately-held companies located in China directly and indirectly through our consolidated joint ventures. These minority investments are reviewed for other than temporary declines in value on a quarterly basis. These investments are classified as other assets in the consolidated balance sheets and are either accounted for under the cost method or under the equity method as we do not have the ability to exercise significant influence over their operations. We monitor our investments for impairment and record reductions in carrying value when events or changes in circumstances indicate that the carrying value may not be recoverable. Reasons for other than temporary declines in value include whether the related company would have insufficient cash flow to operate for the next twelve months, significant changes in the operating performance and changes in market conditions. As of June 30, 2015 and December 31, 2014, our direct minority investments under the cost method totaled $0 and $200,000, respectively, our direct minority investments under the equity method totaled $8.3 million and $8.1 million, respectively, and our indirect minority investments by our consolidated joint ventures totaled $4.4 million and $4.0 million, respectively.

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ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, our Chief Executive Officer and Chief Financial Officer have evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as such terms are defined under Rule 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended. Based upon that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this quarterly report in ensuring that information required to be disclosed on SEC reports is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting was made in the three months ended June 30, 2015 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From time to time we may be involved in judicial or administrative proceedings concerning matters arising in the ordinary course of business. We do not expect that any of these matters, individually or in the aggregate, will have a material adverse effect on our business, financial condition, cash flows or results of operation.

Item 1A. Risk Factors

For ease of reference, we have divided these risks and uncertainties into the following general categories:

·Risks related to our general business;

·Risks related to international aspects of our business;

·Risks related to our financial results and capital structure;

·Risks related to our intellectual property; and

·Risks related to compliance and other legal matters.

Risks Related to Our General Business

Silicon substrates are significantly lower in cost compared to substrates made from specialty materials and new silicon-based technologies could allow silicon based substrates to replace specialty material based substrates for certain applications.

Historically silicon wafers or substrates are less expensive than specialty material substrates such as those that we produce. Electronic designers will generally consider silicon first and only turn to alternative materials if silicon cannot provide the required functionality in terms of power consumption, speed or other specifications. Beginning in 2011 certain applications that had previously used GaAs substrates adopted a new silicon-based technology called Silicon On Insulator, or SOI. SOI technology uses a silicon-insulator-silicon layered substrate in place of conventional silicon substrates in semiconductor manufacturing. SOI products cost less than GaAs substrates and although their performance is not as robust as GaAs substrates in terms of power consumption, heat generation and speed it is still acceptable in mobile phone and other applications that were previously dominated by GaAs substrates. The adoption of SOI has resulted in decreased GaAs wafer demand, and decreased revenue. If SOI or similar technologies gain more widespread market acceptance, or are used in more applications, our business and operating results could be significantly and adversely affected.

Underutilizing our manufacturing facilities may result in declines in our gross margins.

An important factor in our success is the extent to which we are able to utilize the available capacity in our manufacturing facilities. A number of factors and circumstances may reduce utilization rates, including periods of industry overcapacity, low levels of customer orders, operating inefficiencies, mechanical failures and disruption of operations due to expansion, power interruptions, fire, flood or other natural disasters or calamities. Because many portions of our manufacturing costs are relatively fixed, high utilization rates are critical to our gross margins and operating results. If we fail to achieve acceptable manufacturing volumes or experience product shipment delays, our results of operations will be negatively affected. During periods of decreased demand, we have underutilized our manufacturing lines. If we are unable to improve utilization levels at our facilities during periods of decreased demand

and correctly manage capacity, the fixed expense levels will have an adverse effect on our business, financial condition and results of operations. Our gross profit margins have fluctuated from period to period, and these fluctuations are expected to continue in the future. Within the last two years, our gross profit margin has fluctuated from 11.9% in the quarter ended September 30, 2013 to 25.4% in the quarter ended December 31, 2014 and to 20.9% in the quarter ended June 30, 2015.

In 2013, we concluded that incoming orders were insufficient and that we were significantly underutilizing our factory capacity. As a result, in February 2014, we announced a restructuring plan with respect to our wholly-owned subsidiary, Beijing Tongmei Xtal Technology Co, Ltd., or Tongmei, in order to better align manufacturing capacity with demand. Under the restructuring plan, we posted a charge of approximately $907,000 in first quarter of 2014.

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If we receive fewer customer orders than forecasted or if our customers delay or cancel orders, we may not be able to reduce our manufacturing costs in the short-term and our gross margins would be negatively affected. In addition, lead times required by our customers are shrinking which reduces our ability to forecast orders and properly balance our capacity utilization.

Our gross margin has fluctuated historically and may decline due to several factors.

Our gross product margin has fluctuated from period to period as a result of shifts in product mix, the introduction of new products, decreases in average selling prices for products, utilization of our manufacturing capacity and our ability to reduce product costs. These fluctuations are expected to continue in the future.

We do not control the prices at which our subsidiaries and joint venture companies sell their raw materials products to third parties. However, as we consolidate the results of three of these companies with our own, any reduction in their gross margins could have a significant, adverse impact on our overall gross margins. One or more of our companies has in the past, and may in the future, sell raw materials at significantly reduced prices in order to gain volume sales or sales to new customers. In such an event, our gross margin may be adversely impacted. In addition, one of our consolidated subsidiaries has in the past been subject to capacity constraints requiring it to source product from other third party suppliers in order to meet customer demand, resulting in decreased gross margin and adversely impacting our gross margin. This joint venture may in the future continue to experience such capacity restraints, causing our gross margin, and consequently our operating results, to be adversely impacted.

Intense competition in the markets for our products could prevent us from increasing revenue and sustaining profitability.

The markets for our products are intensely competitive. We face competition for our substrate products from other manufacturers of substrates, such as Freiberger Compound Materials, JX, Umicore, Sumitomo Electric Industries and CCTC, from semiconductor device manufacturers that produce substrates for their own use, and from companies, such as TriQuint Semiconductors, RFMD and Skyworks that are actively developing alternative materials to GaAs and marketing semiconductor devices using these alternative materials. We believe that at least two of our major competitors are shipping high volumes of GaAs substrates manufactured using a technique similar to our VGF technology. Other competitors may develop and begin using similar technology. If we are unable to compete effectively, our revenue may not increase and we may be unable to remain profitable. We face many competitors that have a number of significant advantages over us, including:

·greater name recognition and market share in the business;

·more manufacturing experience;

·extensive intellectual property;

·significantly greater financial, technical and marketing resources.

Our competitors could develop new or enhanced products that are more effective than our products.

The level and intensity of competition has increased over the past years and we expect competition to continue to increase in the future. Competitive pressures have resulted in reductions in the prices of our products, and continued or increased competition could reduce our market share, require us to further reduce the prices of our products, affect our ability to recover costs and result in reduced gross margins.

In addition, new competitors have and may continue to emerge, such as a crystal growing company established by a former employee in China that is supplying semi-conducting GaAs wafers to the LED market. Competition from sources such as this could increase, particularly if these competitors are able to obtain large capital investments.

If we have low product yields, the shipment of our products may be delayed and our product cost and operating results may be adversely impacted.

A critical factor in our product cost is yield. Our products are manufactured using complex technologies, and the number of usable substrates we produce can fluctuate as a result of many factors, including:

·impurities in the materials used;

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·contamination of the manufacturing environment;

·quality control and inconsistency in quality levels;

·lack of automation and inconsistent processing resulting from manual manufacturing steps;

·substrate breakage during the manufacturing process;

·equipment failure, power outages or variations in the manufacturing process; and

In addition, we may modify our process to meet a customer specification but this can impact our yield. If our yields decrease, our revenue could decline if we are unable to produce product to our customers' requirements. At the same time, our manufacturing costs could remain fixed, or could increase. We have experienced product shipment delays and difficulties in achieving acceptable yields on both new and older products, and delays and poor yields have adversely affected our operating results. We may experience similar problems in the future and we cannot predict when they may occur or their duration or severity.

If our manufacturing processes result in defects in our products making them unfit for use by our customers, our products would be rejected, resulting in compensation costs paid to our customers, and possible disqualification. This could lead to revenue loss and market share loss.

Problems incurred by our subsidiaries and joint ventures or venture partners could result in a material adverse impact on our financial condition or results of operations.

We have invested in subsidiaries and joint venture operations in China that produce products including 99.99% pure gallium (4N Ga), high purity gallium, arsenic, germanium, germanium dioxide, pyrolytic boron nitride (pBN) crucibles and boron oxide (B2O3). We purchase a portion of the materials produced by these companies for our use and they sell the remainder of their production to third parties. Our ownership and the ownership held by our consolidated subsidiaries in these entities ranges from 20% to 83%. We consolidate the companies in which we have a majority or controlling financial interest and employ equity accounting for the joint ventures in which we have a smaller ownership interest. Several of these joint ventures occupy space within larger facilities owned and/or operated by one of the other venture partners. Several of these venture partners are engaged in other manufacturing activities at or near the same facility. In some facilities, we share access to certain functions, including water, hazardous waste treatment or air quality treatment. If any of our joint venture partners in any of these ventures experiences problems with its operations, disruptions of our joint venture operations could result, having a material adverse effect on the financial condition and results of operation of our joint ventures, and correspondingly on our financial condition or results of operations. For example, since gallium is a by-product of aluminum, our gallium joint venture in China, which is housed in and receives services from an affiliated aluminum plant, could generate lower production of gallium as a result of reduced by-product services provided by the aluminum plant. Accordingly, in order to meet customer supply obligations, our joint venture may have to source materials from another independent third party supplier, resulting in reduced gross margin.

In addition, if any of our joint ventures or venture partners with which our joint ventures share facilities is deemed to have violated applicable laws, rules or regulations governing the use, storage, discharge or disposal of hazardous chemicals during manufacturing, research and development or sales demonstrations, the operations of our joint ventures could be adversely affected and we could be subject to substantial liability for clean-up efforts, personal injury and fines or suspension or cessation of our joint venture operations as a result of the actions of the joint ventures or other venture partners. Employees working for our joint ventures or any of the other venture partners could bring litigation against us as a result of actions taken at the joint venture or venture partner facilities, even though we are not directly controlling the operations, including actions for exposure to chemicals or other hazardous

materials at the facilities of our joint ventures or the facilities of any venture partner that are shared by our joint ventures. While we would expect to defend ourselves vigorously in any litigation that is brought against us, litigation is inherently uncertain and it is possible that our business, financial condition, results of operations or cash flows could be affected. Even if we are not deemed responsible for the actions of the joint ventures or venture partners, litigation could be costly, time consuming to defend and divert management attention; in addition, if we are deemed to be the most financially viable of the partners, plaintiffs may decide to pursue us for damages.

Since all of our joint venture activity occurs in China, these activities could subject us to a number of risks associated with conducting operations internationally, including:

·difficulties in managing geographically disparate operations;

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- difficulties in enforcing agreements through non-U.S. legal systems;

- unexpected changes in regulatory requirements that may limit our ability to export the venture products or sell into particular jurisdictions or impose multiple conflicting tax laws and regulations;

- political and economic instability, civil unrest or war;

- terrorist activities that impact international commerce;

- difficulties in protecting our intellectual property rights, particularly in countries where the laws and practices do not protect proprietary rights to as great an extent as do the laws and practices of the United States;

- changing laws and policies affecting economic liberalization, foreign investment, currency convertibility or exchange rates, taxation or employment; and

- nationalization of foreign owned assets, including intellectual property.

Demand for our products may decrease if demand for the end-user applications decrease or if manufacturers downstream in our supply chain experience difficulty manufacturing, marketing or selling their products.

Our products are used as components in electronic products. Accordingly, demand for our products is subject to the demand for end-user applications which utilize our products, as well as factors affecting the ability of the manufacturers downstream in our supply chain to introduce and market their products successfully, including:

- the competition such manufacturers face in their particular industries;

- the technical, manufacturing, sales and marketing and management capabilities of such manufacturers;

- the financial and other resources of such manufacturers; and

- the inability of such manufacturers to sell their products if they infringe third party intellectual property rights.

If demand for the end-user applications for which our products are used decreases, or if manufacturers downstream in our supply chain are unable to develop, market and sell their products, demand for our products will decrease.

The average selling prices of our products may decline over relatively short periods, which may reduce our gross margins.

The market for our products is characterized by declining average selling prices resulting from factors such as increased competition, overcapacity, the introduction of new products and decreased sales of products incorporating our products and as a result average selling prices for our products may decline over relatively short time periods. We have in the past experienced, and in the future may experience, substantial period-to-period fluctuations in operating results due to declining average selling prices. On average, for the year ended December 31, 2014 we experienced average selling price declines of approximately 5% to 10% depending on the product. It is possible that the pace of average selling price declines could accelerate beyond these levels for certain products in a commoditizing market. We anticipate that average selling prices will decrease in the future in response to the unstable demand environment, product introductions by competitors or us, or by other factors, including pricing pressures from significant customers. When our average selling prices decline, our gross profits decline unless we are able to sell more products or reduce the cost to manufacture our products. We generally attempt to combat average selling price declines by

improving yields, manufacturing efficiency and working to reduce the costs of our raw materials and of manufacturing our products. We have in the past and may in the future experience declining sales prices, which could negatively impact our revenues, gross profits and financial results. We therefore need to sell our current products in increasing volumes to offset any decline in their average selling prices, and introduce new products, which we may not be able to do, or do on a timely basis.

We may be unable to reduce the cost of our products sufficiently to enable us to compete with others. Our cost reduction efforts may not allow us to keep pace with competitive pricing pressures and could adversely affect our margins. In order to remain competitive, we must continually reduce the cost of manufacturing our products through design and engineering changes. We cannot assure you that any changes effected by us will result in sufficient cost reductions to allow us to reduce the price of our products to remain competitive or improve our gross margins.

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Defects in our products could diminish demand for our products.

Our products are complex and may contain defects, including defects resulting from impurities inherent in our raw materials or inconsistencies in our manufacturing processes. We have experienced quality control problems with some of our products, which caused customers to return products to us, reduce orders for our products, or both. We believe that we continue to experience certain reduction in orders as a result of product quality issues. If we continue to experience quality control problems, or experience these or other problems in new products, customers may cancel or reduce orders or purchase products from our competitors and we may be unable to maintain or increase sales to our customers and sales of our products could decline. Defects in our products could cause us to incur higher manufacturing costs and suffer product returns and additional service expenses, all of which could adversely impact our operating results.

If new products developed by us contain defects when released, our customers may be dissatisfied and we may suffer negative publicity or customer claims against us, lose sales or experience delays in market acceptance of our new products.

The Chinese government has imposed, and may impose in the future, manufacturing restrictions that could materially and adversely impact our results of operations and our financial condition.

The Chinese government has in the past imposed restrictions on manufacturing facilities, such as the restrictions imposed on polluting factories for the 2008 Olympics and the 2014 APEC event. These restrictions included a shut-down of the transportation of materials and power plants to reduce air pollution.

In addition, from time to time, the Chinese government issues new regulations, which may require additional actions on our part to comply. On February 27, 2015, the China State Administration of Work Safety updated its list of hazardous substances. The previous list, which was published in 2002, did not restrict the materials that we use in our wafers. The new list added gallium arsenide. As a result of the newly published list, we were required to obtain a permit by May 1, 2015 to continue to manufacture our gallium arsenide substrate wafers. We initiated discussions with the local district agency to obtain the requisite permit. On May 4, 2015, we were instructed by the local district agency that because we had not yet received the requisite permit, we should cease manufacturing our gallium arsenide substrate wafers or we should obtain permission to continue manufacturing our gallium arsenide substrate wafers from a municipal-level office, such as the Beijing municipal authority. The Beijing municipal authority accepted our application on May 7, 2015 and our application is under review. There can be no assurances that we will receive the requisite permit from the Beijing municipal authority or from any other Chinese governmental authority. If we do not receive the requisite permit to continue to manufacture gallium arsenide substrate wafers, we may be required to cease manufacturing such wafers until we receive the requisite permit. A halt to our production of gallium arsenide substrate wafers could result in our furloughing approximately several hundred manufacturing employees. If we obtain the requisite permit after halting our production, we might not be able to recommence manufacturing gallium arsenide substrate wafers immediately because we may need to rebuild our supply chain and we may not be able to rehire our furloughed manufacturing employees. We could also lose customers to our competitors because of our inability to supply gallium arsenide substrate wafers. Any of these could materially and adversely impact our results of operations and our financial condition.

If, in the future, restrictions are imposed that affect our operations, our ability to supply current or new orders would be significantly impacted. Customers could then be required to purchase products from our competitors, causing our competitors to take market share from us. Restrictions on transportation of materials could limit our ability to transport our raw materials or products, and could result in bottlenecks at shipping ports, limiting our ability to deliver products to our customers. During periods of such restrictions, we may increase our stock of critical materials (such as arsenic, gallium, and other chemicals) for use during the period that these restrictions are likely to last, which will increase our use of cash and increase our inventory level, such as occurred during 2008. Any of these restrictions

could materially and adversely impact our results of operations and our financial condition.

To reduce pollution in Beijing, the Chinese government has sometimes limited the addition or expansion of facilities by manufacturing companies in the Beijing area. If the government applied restrictions on us it could have an adverse impact on our results of operations and our financial condition.

The loss of one or more of our key substrate customers would significantly hurt our operating results.

Although there was only one customer represented more than 10% of our revenue for the three months ended June 30, 2015, we expect that a significant portion of our future revenue will continue to be derived from a limited number of substrate customers. Most of our customers are not obligated to purchase a specified quantity of our products or to provide us with binding forecasts of product purchases. In addition, our customers may reduce, delay or cancel orders at any time without any significant penalty. In the past, we have experienced slower bookings, significant push-outs and cancellation of orders from customers. If we lose a major customer or if a customer cancels, reduces or delays orders, or reduces the prices paid for our products, our revenue would decline. In addition, customers that have accounted for significant revenue in the past may not continue to generate revenue for us in any future period. Any delay in scheduled shipments of our products could cause revenue to fall below our expectations and the expectations of market analysts or investors, causing our stock price to decline.

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The cyclical nature of the semiconductor industry may limit our ability to maintain or increase net sales and operating results during industry downturns.

The semiconductor industry is highly cyclical and periodically experiences significant economic downturns characterized by diminished product demand, resulting in production overcapacity and excess inventory in the markets we serve. A downturn can result in lower unit volumes and rapid erosion of average selling prices. The semiconductor industry has experienced significant downturns, often in connection with, or in anticipation of, maturing product cycles of both semiconductor companies' and their customers' products or a decline in general economic conditions. This may adversely affect our results of operations and the value of our business.

Our continuing business depends in significant part upon manufacturers of electronic and opto-electronic compound semiconductor devices, as well as the current and anticipated market demand for these devices and products using these devices. As a supplier to the compound semiconductor industry, we are subject to the business cycles that characterize the industry. The timing, length and volatility of these cycles are difficult to predict. The compound semiconductor industry has historically been cyclical due to sudden changes in demand, the amount of manufacturing capacity and changes in the technology employed in compound semiconductors. The rate of changes in demand, including end demand, is high, and the effect of these changes upon us occurs quickly, exacerbating the volatility of these cycles. These changes have affected the timing and amounts of customers' purchases and investments in new technology. These industry cycles create pressure on our revenue, gross margin and net income.

Our industry has in the past experienced periods of oversupply and that has resulted in significantly reduced prices for compound semiconductor devices and components, including our products, both as a result of general economic changes and overcapacity. When this occurs our operating results and financial condition are adversely affected. Oversupply causes greater price competition and can cause our revenue, gross margins and net income to decline. During periods of weak demand, customers typically reduce purchases, delay delivery of products and/or cancel orders of component parts such as our products. Further order cancellations, reductions in order size or delays in orders could occur and would materially adversely affect our business and results of operations. Actions to reduce our costs may be insufficient to align our structure with prevailing business conditions. We may be required to undertake additional cost-cutting measures, and may be unable to invest in marketing, research and development and engineering at the levels we believe are necessary to maintain our competitive position. Our failure to make these investments could seriously harm our business.

We base our planned operating expenses in part on our expectations of future revenue, and a significant portion of our expense is relatively fixed. If revenue for a particular quarter is lower than we expect, we likely will be unable to proportionately reduce our operating expenses for that quarter, which would harm our operating results. For example, in 2013, we experienced significantly declining gross margins due to the allocation of fixed costs across a lower volume of sales than anticipated.

We purchase critical raw materials and parts for our equipment from single or limited sources, and could lose sales if these sources fail to fill our needs.

We depend on a limited number of suppliers for certain raw materials, components and equipment used in manufacturing our products, including key materials such as quartz tubing from our vendor, Kaide, and polishing solutions. Although several of these raw materials are purchased from suppliers in which we hold an ownership interest, we generally purchase these materials through standard purchase orders and not pursuant to long-term supply contracts, and no supplier guarantees supply of raw materials or equipment to us. If we lose any of our key suppliers, our manufacturing efforts could be significantly hampered and we could be prevented from timely producing and delivering products to our customers. Prior to investing in our subsidiaries and joint ventures, we sometimes experienced delays obtaining critical raw materials and spare parts, including gallium, due to shortages of these materials and we could experience such delays again in the future due to shortages of materials and may be unable to

obtain an adequate supply of materials. These shortages and delays could result in higher materials costs and cause us to delay or reduce production of our products. If we have to delay or reduce production, we could fail to meet customer delivery schedules and our revenue and operating results could suffer.

If we do not successfully develop new products to respond to rapidly changing customer requirements, our ability to generate revenue, obtain new customers, and retain existing customers may suffer.

Our success depends on our ability to offer new products and product features that incorporate leading technology and respond to technological advances. In addition, our new products must meet customer needs and compete effectively on quality, price and performance. The life cycles of our products are difficult to predict. The markets for our products are characterized by rapid technological change, changing customer needs and evolving industry standards. If our competitors introduce products employing new technologies or performance characteristics, our existing products could become obsolete and unmarketable. During the past few years, we have seen our competitors selling more substrates manufactured using a crystal growth technology similar to ours, which has eroded our technological differentiation.

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The development of new products can be a highly complex process, and we may experience delays in developing and introducing new products. Any significant delay could cause us to fail to timely introduce and gain market acceptance of new products. Further, the costs involved in researching, developing and engineering new products could be greater than anticipated. If we fail to offer new products or product enhancements or fail to achieve higher quality products, we may not generate sufficient revenue to offset our development costs and other expenses or meet our customers' requirements.

Our substrate products have a long qualification cycle that makes it difficult to plan our expenses and forecast our results.

New customers typically place orders with us for our substrate products three months to a year or more after our initial contact with them. The sale of our products may be subject to delays due to our customers' lengthy internal approval and evaluation processes. During this time, we may incur substantial expenses and expend sales, marketing and management efforts while the customers evaluate our products. These expenditures may not result in sales of our products. If we do not achieve anticipated sales in a period as expected, we may experience an unplanned shortfall in our revenue. As a result, we may not be able to cover expenses, causing our operating results to be adversely effected. In addition, if we fail to meet the product qualification requirements of the customer, we may not have another opportunity to sell products to this customer for many months or even years. In the current competitive climate, the average qualification and sales cycle for our products has lengthened even further and is expected to continue to make it difficult for us to forecast our future sales accurately. We anticipate that sales of any future substrate products will also have lengthy sales cycles and will, therefore, be subject to risks substantially similar to those inherent in the lengthy sales cycles of our current substrate products.

If any of our facilities are damaged by occurrences such as fire, explosion or natural disaster, we might not be able to manufacture our products.

The ongoing operation of our manufacturing and production facilities in China is critical to our ability to meet demand for our products. If we are not able to use all or a significant portion of our facilities for prolonged periods for any reason, we would not be able to manufacture products for our customers. For example, a fire or explosion caused by our use of combustible chemicals and high temperatures during our manufacturing processes or power interruption caused by severe weather conditions could render some or all of our facilities inoperable for an indefinite period of time. Actions outside of our control, such as earthquakes or other natural disasters, could also damage our facilities, rendering them inoperable. If we are unable to operate our facilities and manufacture our products, we would lose customers and revenue and our business would be harmed.

The financial condition of our customers may affect their ability to pay amounts owed to us.

Many of our customers are undercapitalized and cope with cash flow issues. We frequently allow our customers extended payment terms after shipping products to them. Subsequent to our shipping a product, some customers have been unable to make payments when due, reducing our cash balances and causing us to incur charges to allow for a possibility that some accounts might not be paid. Customers may also be forced to file for bankruptcy. If our customers do not pay their accounts we will be required to incur charges that would reduce our earnings.

We have made and may continue to make strategic investments in raw materials suppliers, which may not be successful and may result in the loss of all or part of our investment.

We have made investments through our subsidiaries and joint ventures in raw material suppliers in China, which provide us with opportunities to gain supplies of key raw materials that are important to our substrate business. These affiliates each have a market beyond that provided by us. We do not have influence over all of these companies and in some we have made only a strategic, minority investment. We may not be successful in achieving the financial,

technological or commercial advantage upon which any given investment is premised, and we could end up losing all or part of our investment.

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We depend on the continuing efforts of our senior management team and other key personnel. If we lose members of our senior management team or other key personnel, or are unable to successfully, recruit and train qualified personnel, our ability to manufacture and sell our products could be harmed.

Our future success depends on the continuing services of members of our senior management team and other key personnel. Our industry is characterized by high demand and intense competition for talent, and the turnover rate can be high. We compete for qualified management and other personnel with other semiconductor companies. Our employees could leave our company with little or no prior notice and would be free to work for a competitor. If one or more of our senior executives or other key personnel were unable or unwilling to continue in their present positions, we may not be able to replace them easily or at all, and other senior management may be required to divert attention from other aspects of the business. The loss of any of these individuals or our ability to attract or retain qualified personnel could adversely affect our business.

Our results of operations may suffer if we do not effectively manage our inventory.

We must manage our inventory of raw materials, work-in-process and finished goods effectively to meet changing customer requirements, while keeping inventory costs down and improving gross margins. Although we seek to maintain sufficient inventory levels of certain materials to guard against interruptions in supply and to meet our near term needs, and have to date been able to obtain sufficient supplies of materials in a timely manner, in the future, we may experience shortages of certain key materials. Some of our products and supplies have in the past and may in the future become obsolete while in inventory due to changing customer specifications, or become excess inventory due to decreased demand for our products and an inability to sell the inventory within a foreseeable period. Furthermore, if market prices drop below the prices at which we value inventory, we may need to take a charge for a reduction in inventory values. We have in the past had to take inventory valuation and impairment charges. Any future unexpected changes in demand or increases in costs of production that cause us to take additional charges for un-saleable, obsolete or excess inventory, or to reduce inventory values, could adversely affect our results of operations.

Financial market volatility and adverse changes in the domestic and global economic environment could have a significant adverse impact on our business, financial condition and operating results.

We are subject to the risks arising from adverse changes and uncertainty in domestic and global economies. Uncertain global economic conditions and low or negative growth in China, Europe and the United States, along with volatility in the financial markets, increasing national debt and fiscal concerns in various regions, pose challenges to our industry. Although we remain well-capitalized, the cost and availability of funds may be adversely affected by illiquid credit markets. Turbulence in U.S. and international markets and economies may adversely affect our liquidity, financial condition and profitability. Another severe or prolonged economic downturn could result in a variety of risks to our business, including:

- increased volatility in our stock price;
- increased volatility in foreign currency exchange rates;
- delays in, or curtailment of, purchasing decisions by our customers or potential customers either as a result of overall economic uncertainty or as a result of their inability to access the liquidity necessary to engage in purchasing initiatives;
- increased credit risk associated with our customers or potential customers, particularly those that may operate in industries most affected by the economic downturn; and
- impairment of our intangible or other assets.

In the recent past we experienced delays in customer purchasing decisions and disruptions in normal volume of customer orders that we believe were in part due to the uncertainties in the global economy and an adverse impact on consumer spending. During challenging and uncertain economic times and in tight credit markets, many customers delay or reduce technology purchases. Should similar events occur again, our business and operating results could be significantly and adversely affected.

Global economic conditions may have an impact on our business and financial condition in ways that we currently cannot predict.

Our operations and financial results depend on worldwide economic conditions and their impact on levels of business spending, which had deteriorated significantly in many countries and regions in previous years. Uncertainties in the financial and credit markets may cause our customers to postpone deliveries of ordered systems and placement of new orders and extended uncertainties may reduce future sales of our products and services. The revenue growth and profitability of our business depends on the overall demand for our substrates, and we are particularly dependent on the market conditions for the wireless, solid state illumination, fiber optics and telecommunications industries. Because the end users of our products are primarily large companies whose businesses fluctuate with general economic and business conditions, a softening of demand for products that use our substrates, caused by a weakening economy, may result in decreased revenue. Customers may find themselves facing excess inventory from earlier purchases, and may defer or reconsider purchasing products due to the downturn in their business and in the general economy. If market conditions deteriorate, we may experience increased collection times and greater write-offs, either of which could have a material adverse effect on our profitability and our cash flow.

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Future tightening of credit markets and concerns regarding the availability of credit may make it more difficult for our customers to raise capital, whether debt or equity, to finance their purchases of capital equipment or of the products we sell. Delays in our customers' ability to obtain such financing, or the unavailability of such financing, would adversely affect our product sales and revenues and therefore harm our business and operating results. We cannot predict the timing, duration of or effect on our business of any future economic downturn or the timing or strength of any subsequent recovery.

We may not be able to identify additional complementary joint ventures.

We believe that continuing to invest in additional joint ventures will be important to remaining competitive in our marketplace and ensuring a supply of critical raw materials. However, we may not be able to identify additional complementary joint venture opportunities or, even once opportunities are identified, we may not be able to reach agreement on the terms of the venture with the other venture partners. Additional joint ventures could cause us to incur contingent liabilities or other expenses, any of which could adversely affect our financial condition and operating results.

The effect of terrorist threats and actions on the general economy could decrease our revenue.

Developed countries such as the United States and China continue to be on alert for terrorist activity. The potential near- and long-term impact terrorist activities may have in regards to our suppliers, customers and markets for our products and the economy is uncertain. There may be embargos of ports or products, or destruction of shipments or our facilities, or attacks that affect our personnel. There may be other potentially adverse effects on our operating results due to significant events that we cannot foresee. Since we perform all of our manufacturing operations in China, terrorist activity or threats against U.S. owned enterprises are a particular concern to us.

Risks Related to International Aspects of Our Business

We derive a significant portion of our revenue from international sales, and our ability to sustain and increase our international sales involves significant risks.

Our revenue growth depends in part on the expansion of our international sales and operations. International sales represented 88% of our revenue in 2014 and 2013 and 83% of our revenue in 2012. We expect that sales to customers outside the United States, particularly sales to customers in Japan, Taiwan and China, will continue to represent a significant portion of our revenue.

Currently, a significant percentage of our revenue is to customers headquartered in Asia. All of our manufacturing facilities and most of our suppliers are also located outside the United States. Managing our overseas operations presents challenges, including periodic regional economic downturns, trade balance issues, varying business conditions and demands, political instability, variations in enforcement of intellectual property and contract rights in different jurisdictions, differences in the ability to develop relationships with suppliers and other local businesses, changes in U.S. and international laws and regulations including U.S. export restrictions, fluctuations in interest and currency exchange rates, the ability to provide sufficient levels of technical support in different locations, cultural differences, shipping delays and terrorist acts or acts of war, among other risks. Many of these challenges are present in China, which represents a large potential market for semiconductor devices. Global uncertainties with respect to: (i) economic growth rates in various countries; (ii) sustainability of demand for electronics products; (iii) capital spending by semiconductor manufacturers; (iv) price weakness for certain semiconductor devices; and (v) political instability in regions where we have operations may also affect our business, financial condition and results of operations.

Our dependence on international sales involves a number of risks, including:

·changes in tariffs, import restrictions, export restrictions, or other trade barriers;

·unexpected changes in regulatory requirements;

·longer periods to collect accounts receivable;

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·changes in export license requirements;

·political and economic instability;

·unexpected changes in diplomatic and trade relationships; and

·foreign exchange rate fluctuations.

Our sales are denominated in U.S. dollars, except for sales to our Chinese customers which are denominated in Renminbi and our Japanese customers which are denominated in Japanese yen. Increases in the value of the U.S. dollar could increase the price of our products in non-U.S. markets and make our products more expensive than competitors' products in these markets.

Denominating some sales in Japanese yen subjects us to fluctuations in the exchange rates between the U.S. dollar and the Japanese yen. For example, in the second half of 2014, the exchange rate of Japanese yen to U.S. dollar moved from 101.55 to 119.95 from June 30, 2014 to December 31, 2014. We incurred foreign currency transaction exchange losses which are included in "other income (expense), net" on the consolidated statements of operations of $1.0 million, $1.3 million and $445,000 for the years ended December 31, 2014, 2013 and 2012 respectively. We incur transaction gains or losses resulting from the purchase and sale activities denominated in foreign currencies other than functional currencies at the respective consolidated entities, and from marking foreign currency balance sheet items to the current market rate for those consolidated entities whose functional currencies are other than the reporting currency. The functional currency of our Chinese subsidiary and joint ventures is the local currency. If we do not effectively manage the risks associated with international sales, our revenue, cash flows and financial condition could be adversely affected.

Changes in tariffs, import or export restrictions, Chinese regulations or other trade barriers may reduce gross margins.

We may incur increases in costs due to changes in tariffs, import or export restrictions, or other trade barriers, unexpected changes in regulatory requirements, any of which could reduce our gross margins. For example, in July 2012, we received notice of retroactive value-added taxes (VATs) levied by the tax authorities in China which applied for the period from July 1, 2011 to June 30, 2012. We expensed the retroactive VATs of approximately $1.3 million in the quarter ended June 30, 2012, which resulted in a decrease in our gross margins. These VATs will continue to negatively impact our gross margins for the future quarters. Given the relatively fluid regulatory environment in China, there could be additional tax or other regulatory changes in the future. Any such changes could directly and materially adversely impact our financial results and general business condition.

Our operating results depend in large part on continued customer acceptance of our substrate products manufactured in China and continued improvements in product quality.

We manufacture all of our products in China, and source most of our raw materials in China. We have in the past experienced quality problems with our China manufactured products. Our previous quality problems caused us to lose market share to our competitors, as some customers reduced their orders from us until our surface quality was as good and consistent as that offered by competitors and instead allocated their requirements for compound semiconductor substrates to our competitors. If we are unable to continue to achieve customer qualifications for our products, or if we continue to experience quality problems, customers may not increase purchases of our products, our China facility will become underutilized, and we will be unable to achieve revenue growth.

Changes in China's political, social and economic environment may affect our financial performance.

Our financial performance may be affected by changes in China's political, social and economic environment. The role of the Chinese central and local governments in the Chinese economy is significant. Economic growth rates in China are slowing and there has been significant volatility in the stock indexes within China. The Chinese government is believed to take an active role in influencing stock indexes and in many other areas. Chinese policies toward economic liberalization, and laws and policies affecting technology companies, foreign investment, currency exchange rates, taxation structure and other matters could change, resulting in greater restrictions on our ability to do business and operate our manufacturing facilities in China. Any imposition of surcharges or any increase in Chinese tax rates or reduction or elimination of Chinese tax benefits could hurt our operating results. The Chinese government could revoke, terminate or suspend our operating license for national security and similar reasons without compensation to us. If the Chinese government were to take any of these actions, we would be prevented from conducting all or part of our business. Any failure on our part to comply with governmental regulations could result in the loss of our ability to manufacture our products in China.

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If there are power shortages in China, we may have to temporarily close our China operations, which would adversely impact our ability to manufacture our products and meet customer orders, and would result in reduced revenue.

In the past, China has faced power shortages resulting in power demand outstripping supply in peak periods. Instability in electrical supply has caused sporadic outages among residential and commercial consumers causing the Chinese government to implement tough measures to ease the energy shortage. If further problems with power shortages occur in the future, we may be required to make temporary closures of our subsidiary and joint venture operations. We may be unable to manufacture our products and would then be unable to meet customer orders except from inventory on hand. As a result, our revenue could be adversely impacted, and our relationships with our customers could suffer, impacting our ability to generate future revenue. In addition, if power is shut off at the facilities for our China joint ventures at any time, either voluntarily or as a result of unplanned brownouts, during certain phases of our manufacturing process including our crystal growth phase, the work in process may be ruined and rendered unusable, causing us to incur costs that will not be covered by revenue, and negatively impacting our cost of revenue and gross margins.

An outbreak of a contagious disease such as Ebola, Severe Acute Respiratory Syndrome (SARS) or the Avian Flu may adversely impact our manufacturing operations and some of our key suppliers and customers.

Any reoccurrence of SARS or an outbreak of a contagious disease, such as Avian Flu, or Ebola, may cause us to temporarily close our manufacturing operations. Similarly, if one or more of our key suppliers is required to close for an extended period, we might not have enough raw material inventories to continue manufacturing operations. In addition, while we possess management skills among our China staff that enable us to maintain our manufacturing operations with minimal on-site supervision from our U.S. based staff, our business could also be harmed if travel to or from China and the United States is restricted or inadvisable. If our manufacturing operations were closed for a significant period, we could lose revenue and market share, which would depress our financial performance and could be difficult to recapture. Finally, if one of our key customers is required to close for an extended period, we might not be able to ship product to them, our revenue would decline and our financial performance would suffer.

Risks Related to Our Financial Results and Capital Structure

If we fail to manage periodic contractions, we may utilize our cash balances, resulting in the decline of our existing cash, cash equivalents and investment balances.

We anticipate that our existing cash resources will fund our operations and purchases of capital equipment, as well as provide adequate working capital for the next twelve months. However, our liquidity is affected by many factors including, among others, the extent to which we pursue additional capital expenditures, the level of our production, and other factors related to the uncertainties of the industry and global economies. If we fail to manage business contractions successfully we may draw down our cash reserves, which would adversely affect our financial condition, reduce our value and possibly impinge our ability to raise debt and equity funding in the future, at a time when we might need to raise additional cash. Accordingly, there can be no assurance that events in the future will not require us to seek additional capital or, if required, that such capital would be available on terms acceptable to us, if at all. As part of our effort to reduce costs, we may lose key staff, production resources and technology that we will need to replenish when end markets recover. These events could reduce our ability to grow profitably as markets recover.

Unpredictable fluctuations in our operating results could disappoint analysts or our investors, which could cause our stock price to decline.

We have experienced, and may continue to experience, significant fluctuations in our revenue and earnings. Our quarterly and annual revenue and operating results have varied significantly in the past and may vary significantly in the future due to a number of factors, including:

- our ability to develop, manufacture and deliver high quality products in a timely and cost-effective manner;

- decline in general economic conditions or downturns in the industry in which we compete;

- fluctuations in demand for our products;

- expansion of our manufacturing capacity;

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- expansion of our operations in China;

- limited availability and increased cost of raw materials;

- the volume and timing of orders from our customers, and cancellations, push-outs and delays of customer orders once booked;

- fluctuation of our manufacturing yields;

- decreases in the prices of our or our competitors' products;

- costs incurred in connection with any future acquisitions of businesses or technologies; and

- increases in our expenses, including expenses for research and development.

Due to these factors, we believe that period-to-period comparisons of our operating results may not be meaningful indicators of our future performance.

A substantial percentage of our operating expenses are fixed, and we may be unable to adjust spending to compensate for an unexpected shortfall in revenue. As a result, any delay in generating revenue could cause our operating results to fall below the expectations of market analysts or investors, which could also cause our stock price to decline.

If our operating results and financial performance do not meet the guidance that we have provided to the public, our stock price may decline.

We provide public guidance on our expected operating and financial results. Although we believe that this guidance provides our stockholders, investors and analysts with a better understanding of our expectations for the future, such guidance is comprised of forward-looking statements subject to the risks and uncertainties described in this report and in our other public filings and public statements. Our actual results may not meet the guidance we have provided. If our operating or financial results do not meet our guidance or the expectations of investment analysts, our stock price may decline.

We have adopted certain anti-takeover measures that may make it more difficult for a third party to acquire us.

Our board of directors has the authority to issue up to 2,000,000 shares of preferred stock and to determine the price, rights, preferences and privileges of those shares without any further vote or action by the stockholders. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of shares of preferred stock could have the effect of making it more difficult for a third party to acquire a majority of our outstanding voting stock. We have no present intention to issue additional shares of preferred stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a merger, acquisition or change of control, or changes in our management, which could adversely affect the market price of our common stock. The following are some examples of these provisions:

- the division of our board of directors into three separate classes, each with three-year terms;

- the right of our board to elect a director to fill a space created by a board vacancy or the expansion of the board;

- the ability of our board to alter our amended and restated bylaws; and

- the requirement that only our board or the holders of at least 10% of our outstanding shares may call a special meeting of our stockholders.

Furthermore, because we are incorporated in Delaware, we are subject to the provisions of Section 203 of the Delaware General Corporation Law. These provisions prohibit us from engaging in any business combination with any interested stockholder (a stockholder who owns 15% or more of our outstanding voting stock) for a period of three years following the time that such stockholder became an interested stockholder, unless:

- $66^{2}/_{3}$% of the shares of voting stock not owned by the interested stockholder approve the merger or combination, or

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- the board of directors approves the merger or combination or the transaction which resulted in the stockholder becoming an interested stockholder.

Our common stock may be delisted from The Nasdaq Global Select Market, which could negatively impact the price of our common stock and our ability to access the capital markets.

Our common stock is listed on The Nasdaq Global Select Market. The bid price of our common stock has in the past closed below the $1.00 minimum per share bid price required for continued inclusion on The Nasdaq Global Select Market under Marketplace Rule 5450(a). If the bid price of our common stock remains below $1.00 per share for thirty consecutive business days, we could be subject to delisting from the Nasdaq Global Select Market.

Any delisting from The Nasdaq Global Select Market could have an adverse effect on our business and on the trading of our common stock. If a delisting of our common stock were to occur, our common stock would trade on the OTC Bulletin Board or on the “pink sheets” maintained by the National Quotation Bureau, Inc. Such alternatives are generally considered to be less efficient markets, and our stock price, as well as the liquidity of our common stock, may be adversely impacted as a result. Delisting from The Nasdaq Global Select Market could also have other negative results, including the potential loss of confidence by suppliers and employees, the loss of institutional investor interest and fewer business development opportunities, as well as the loss of liquidity for our stockholders.

Risks Related to Our Intellectual Property

Intellectual property infringement claims may be costly to resolve and could divert management attention.

Other companies may hold or obtain patents on inventions or may otherwise claim proprietary rights to technology necessary to our business. The markets in which we compete are comprised of competitors that in some cases hold substantial patent portfolios covering aspects of products that could be similar to ours. We could become subject to claims that we are infringing patent, trademark, copyright or other proprietary rights of others. We have in the past been involved in lawsuits alleging patent infringement, and could in the future be involved in similar litigation. For example, we entered into a settlement agreement with Sumitomo Electric Industries in 2011 to settle a claim of patent infringement.

If we are unable to protect our intellectual property, we may lose valuable assets or incur costly litigation.

We rely on a combination of patents, copyrights, trademark and trade secret laws, non-disclosure agreements and other intellectual property protection methods to protect our proprietary technology. However, we believe that, due to the rapid pace of technological innovation in the markets for our products, our ability to establish and maintain a position of technology leadership also depends on the skills of our development personnel. Despite our efforts to protect our intellectual property, third parties can develop products or processes similar to ours. Our means of protecting our proprietary rights may not be adequate, and our competitors may independently develop similar technology, duplicate our products or design around our patents. We believe that at least two of our competitors have begun to ship GaAs substrates produced using a process similar to our VGF process. Our competitors may also develop and patent improvements to the VGF technology upon which we rely, and thus may limit any exclusivity we enjoy by virtue of our patents or trade secrets.

It is possible that pending or future United States or foreign patent applications made by us will not be approved, that our issued patents will not protect our intellectual property, or that third parties will challenge our ownership rights or the validity of our patents. In addition, the laws of some foreign countries may not protect our proprietary rights to as great an extent as do the laws of the United States and it may be more difficult to monitor the use of our intellectual property. Our competitors may be able to legitimately ascertain non-patented proprietary technology embedded in our systems. If this occurs, we may not be able to prevent the development of technology substantially similar to ours.

We may have to resort to costly litigation to enforce our intellectual property rights, to protect our trade secrets or know-how or to determine their scope, validity or enforceability. Enforcing or defending our proprietary technology is expensive, could cause us to divert resources and may not prove successful. Our protective measures may prove inadequate to protect our proprietary rights, and if we fail to enforce or protect our rights, we could lose valuable assets.

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Risks Related to Compliance and Other Legal Matters

We need to continue to improve or implement our systems, procedures and controls.

Our operations in China and our efforts to grow our business place a significant strain on our operations and management resources. We rely on certain manual processes in our operations and in connection with consolidation of our financial results. If we fail to manage these operations or fail to effectively manage a transition from manual processes to automated processes, our operations may be disrupted.

To manage our business effectively, we may need to implement additional management information systems, further develop our operating, administrative, financial and accounting systems and controls, add experienced senior level managers, and maintain close coordination among our executive, engineering, accounting, marketing, sales and operations organizations.

We are subject to internal control evaluations and attestation requirements of Section 404 of the Sarbanes Oxley Act.

Pursuant to Section 404 of the Sarbanes Oxley Act of 2002, we must include in our Annual Report on Form 10-K a report of management on the effectiveness of our internal control over financial reporting. Ongoing compliance with this requirement is complex, costly and time-consuming. If: (1) we fail to maintain effective internal control over financial reporting; or (2) our management does not timely assess the adequacy of such internal control, we could be subject to regulatory sanctions and the public's perception of us may be adversely impacted.

If we fail to comply with environmental and safety regulations, we may be subject to significant fines or forced to cease our operations; in addition, we could be subject to suits for personal injuries caused by hazardous materials.

We are subject to federal, state and local environmental and safety laws and regulations in all of our operating locations, including laws and regulations of China, such as laws and regulations related to the development, manufacture and use of our products, the operation of our facilities, hazardous materials, and the use of our real property. These laws and regulations govern the use, storage, discharge and disposal of hazardous chemicals during manufacturing, research and development, and sales demonstrations. If we fail to comply with applicable regulations, we could be subject to orders to cease manufacturing or substantial liability for clean-up efforts, personal injury and fines or suspension or be forced to cease our operations, and/or suspend or terminate the development, manufacture or use of certain of our products, the use of our facilities, or the use of our real property, each of which could have a material adverse effect on our business, financial condition and results of operations.

For example, in 2005, a complaint was filed against us alleging personal injury, general negligence, intentional tort, wage loss and other damages, including punitive damages, as a result of exposure of plaintiffs to high levels of gallium arsenide in gallium arsenide wafers, and methanol. Other current and/or former employees could bring litigation against us in the future. Although we have put in place engineering, administrative and personnel protective equipment programs to address these issues, our ability to expand or continue to operate our present locations could be restricted or we could be required to acquire costly remediation equipment or incur other significant expenses if we were found liable for failure to comply with environmental and safety regulations. Existing or future changes in laws or regulations in the United States and China may require us to incur significant expenditures or liabilities, or may restrict our operations. In addition, our employees could be exposed to chemicals or other hazardous materials at our facilities and we may be subject to lawsuits seeking damages for wrongful death or personal injuries allegedly caused by exposure to chemicals or hazardous materials at our facilities.

Litigation is inherently uncertain and while we would expect to defend ourselves vigorously, it is possible that our business, financial condition, results of operations or cash flows could be affected in any particular period by litigation pending and any additional litigation brought against us. In addition, future litigation could divert management's

attention from our business and operations, causing our business and financial results to suffer. We could incur defense or settlement costs in excess of the insurance covering these litigation matters, or that could result in significant judgments against us or cause us to incur costly settlements, in excess of our insurance limits.

In addition, from time to time, the Chinese government issues new regulations, which may require additional actions on our part to comply. On February 27, 2015, the China State Administration of Work Safety updated its list of hazardous substances. The previous list, which was published in 2002, did not restrict the materials that we use in our wafers. The new list added gallium arsenide. As a result of the newly published list, we were required to obtain a permit by May 1, 2015 to continue to manufacture our gallium arsenide substrate wafers. We initiated discussions with the local district agency to obtain the requisite permit. On May 4, 2015, we were instructed by the local district agency that because we had not yet received the requisite permit, we should cease manufacturing our gallium arsenide substrate wafers or we should obtain permission to continue manufacturing our gallium arsenide substrate wafers from a municipal-level office, such as the Beijing municipal authority. The Beijing municipal authority accepted our application on May 7, 2015 and our application is under review. There can be no assurances that we will receive the requisite permit from the Beijing municipal authority or from any other Chinese governmental authority. If we do not receive the requisite permit to continue to manufacture gallium arsenide substrate wafers, we may be required to cease manufacturing such wafers until we receive the requisite permit. A halt to our production of gallium arsenide substrate wafers could result in our furloughing approximately several hundred manufacturing employees. If we obtain the requisite permit after halting our production, we might not be able to recommence manufacturing gallium arsenide substrate wafers immediately because we may need to rebuild our supplychain and we may not be able to rehire our furloughed manufacturing employees. We could also lose customers to our competitors because of our inability to supply gallium arsenide substrate wafers. Any of these could materially and adversely impact our results of operations and our financial condition.

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

Repurchases of Equity Securities

On February 21, 2013, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $6.0 million of our outstanding common stock through February 27, 2014. These purchases were to be made from time to time in the open market and were funded from our existing cash balances and cash generated from operations. During 2013, we repurchased approximately 285,000 shares at an average price of $2.51 per share for a total purchase price of $716,000 under the stock repurchase program. As of December 31, 2013, approximately $5.3 million remained available for future repurchases under this program. No shares were repurchased in 2014 under this program and the plan expired on February 27, 2014.

On October 27, 2014, our Board of Directors approved a stock repurchase program pursuant to which we may repurchase up to $5.0 million of our outstanding common stock. These repurchases can be made from time to time in the open market and are funded from our existing cash balances and cash generated from operations. During the three months ended June 30, 2015, we repurchased approximately 353,000 shares at an average price of $2.56 per share for a total purchase price of $904,000 under the stock repurchase program. During the six months ended June 30, 2015, we repurchased approximately 583,000 shares at an average price of $2.61 per share for a total purchase price of $1.5 million under the stock repurchase program. As of June 30, 2015, approximately $3.5 million remained available for future repurchases under this program. The following table provides additional details regarding our repurchase activity during the three months ended June 30, 2015:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximately Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs (in thousands)
April 1, 2015 – April 30, 2015	149,416	$ 2.61	149,416	$ 3,992
May 1, 2015 – May 31, 2015	50,375	$ 2.48	50,375	$ 3,868
June 1, 2015 – June 30, 2015	153,020	$ 2.54	153,020	$ 3,479

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Item 3. Defaults upon Senior Securities

None

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None

Item 6. Exhibits

a. Exhibits

Exhibit Number	Description
10.1(1)*	Consulting Agreement, dated May 15, 2015, between AXT, Inc. and Davis Zhang.
10.2(2)*	Employment Offer Letter, dated as of June 9, 2015, between AXT, Inc. and Hong Q. Hou.
31.1	Certification by Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS†	XBRL Instance.
101.SCH†	XBRL Taxonomy Extension Schema.
101.CAL†	XBRL Taxonomy Extension Calculation Linkbase.
101.LAB†	XBRL Taxonomy Extension Label Linkbase.
101.PRE†	XBRL Taxonomy Extension Presentation Linkbase.

(1) Incorporated by reference to exhibit 10.1 to registrant's Form 8-K filed with the SEC on May 20, 2015.
(2) Incorporated by reference to exhibit 10.1 to registrant's Form 8-K filed with the SEC on June 30, 2015.

* Management contract or compensatory plan.

† XBRL (Extensible Business Reporting Language) information is furnished and not filed or a 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 is otherwise not subject to liability under these sections.

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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.

AXT, INC.

Dated: August 7, 2015 By: /s/ MORRIS S. YOUNG
Morris S. Young
Chief Executive Officer
(Principal Executive Officer)

/s/ GARY L. FISCHER
Gary L. Fischer
Chief Financial Officer and Corporate Secretary
(Principal Financial Officer and Principal Accounting Officer)

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EXHIBIT INDEX

Exhibit Number	Description
10.1(1)*	Consulting Agreement, dated May 15, 2015, between AXT, Inc. and Davis Zhang.
10.2(2)*	Employment Offer Letter, dated as of June 9, 2015, between AXT, Inc. and Hong Q. Hou.
31.1	Certification by Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification by Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification by Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

101.INS‡XBRL Instance.
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