

Rubicon Technology, Inc.  
Form 10-Q  
August 08, 2014  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**WASHINGTON, DC 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, 2014**

**or**

**Transition report pursuant to section 13 or 15(d) of the Securities Exchange Act of 1934  
for the transition period from \_\_\_\_\_ to \_\_\_\_\_**

**Commission file number 001-33834**

**RUBICON TECHNOLOGY, INC.**

**(Exact Name of Registrant as Specified in Its Charter)**

**Delaware**  
**(State or Other Jurisdiction of**  
**Incorporation or Organization)**

**36-4419301**  
**(I.R.S. Employer**  
**Identification No.)**

**900 East Green Street**

**Bensenville, Illinois**  
**(Address of Principal Executive Offices)**

**60106**  
**(Zip Code)**

**Registrant's Telephone Number, Including Area Code: (847) 295-7000**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

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

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

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Large accelerated filer  Accelerated filer  x  
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  x

As of August 4, 2014 the Registrant had 26,156,757 shares of common stock, par value \$0.001 per share, outstanding.

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**RUBICON TECHNOLOGY, INC.**

**Quarterly Report on Form 10-Q**

**For the quarterly period ended June 30, 2014**

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**Table of Contents****PART I FINANCIAL INFORMATION****ITEM 1. Consolidated Financial Statements  
Rubicon Technology, Inc.****Consolidated balance sheets**

|  | <b>June 30,<br/>2014</b>                         | <b>December 31,<br/>2013</b> |
|--|--|------------------------------|
|  | <b>(unaudited)</b>                               |                              |
|  | <b>(in thousands, other than<br/>share data)</b> |                              |
| <b>Assets</b>                              |  |                              |
| Cash and cash equivalents                  | \$ 24,730  | \$ 21,071                    |
| Restricted cash                            | 197  | 165                          |
| Short-term investments                     | 33,260   | 13,567                       |
| Accounts receivable, net                   | 8,389  | 3,571                        |
| Accounts receivable, related parties       | 145  |                              |
| Inventories                                | 23,364   | 34,312                       |
| Other inventory supplies                   | 11,420   | 12,533                       |
| Prepaid expenses and other current assets  | 1,010  | 1,186                        |
| <br>                                       |  |                              |
| Total current assets                       | 102,515  | 86,405                       |
| Property and equipment, net                | 112,860  | 115,220                      |
| Other assets                               | 1,771  | 1,070                        |
| <br>                                       |  |                              |
| Total assets                               | \$ 217,146                                       | \$ 202,695                   |
| <br>                                       |  |                              |
| <b>Liabilities and stockholders equity</b> |  |                              |
| Accounts payable                           | \$ 4,388   | \$ 4,465                     |
| Accrued payroll                            | 423  | 369                          |
| Accrued and other current liabilities      | 850  | 867                          |
| Corporate income and franchise taxes       | 132  | 192                          |
| Accrued real estate taxes                  | 325  | 336                          |
| Advance payments                           | 107  | 408                          |
| <br>                                       |  |                              |
| Total current liabilities                  | 6,225  | 6,637                        |
| Deferred tax liability                     | 225  | 267                          |
| <br>                                       |  |                              |
| Total liabilities                          | 6,450  | 6,904                        |
| <br>                                       |  |                              |
| Commitments and contingencies              |  |                              |
| Stockholders equity                        |  |                              |

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|   |            |            |
|---|------------|------------|
| Preferred stock, \$0.001 par value, 5,000,000 undesignated shares authorized, no shares issued or outstanding   |            |            |
| Common stock, \$0.001 par value, 40,000,000 shares authorized and 27,931,601 and 24,453,523 shares issued; 26,156,757 and 22,658,679 shares outstanding | 28         | 25         |
| Additional paid-in capital  | 371,777    | 335,935    |
| Treasury stock, at cost, 1,774,844 shares   | (12,148)   | (12,148)   |
| Accumulated other comprehensive loss  | (480)      | (418)      |
| Accumulated deficit   | (148,481)  | (127,603)  |
| Total stockholders' equity  | 210,696    | 195,791    |
| Total liabilities and stockholders' equity  | \$ 217,146 | \$ 202,695 |

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

**Table of Contents****Rubicon Technology, Inc.****Consolidated statements of operations**

|  | <b>Three months ended<br/>June 30,</b>           |             | <b>Six months ended<br/>June 30,</b> |             |
|--|--|-------------|--------------------------------------|-------------|
|  | <b>2014</b>                                      | <b>2013</b> | <b>2014</b>                          | <b>2013</b> |
|  | <b>(unaudited)</b>                               |             |                                      |             |
|  | <b>(in thousands, other than<br/>share data)</b> |             |                                      |             |
| Revenue  | \$ 14,469  | \$ 10,555   | \$ 28,737                            | \$ 18,862   |
| Cost of goods sold   | 21,743   | 16,972      | 43,505                               | 28,654      |
| Gross loss   | (7,274)  | (6,417)     | (14,768)                             | (9,792)     |
| Operating expenses:  |  |             |                                      |             |
| General and administrative   | 2,197  | 2,215       | 4,585                                | 4,405       |
| Sales and marketing  | 332  | 414         | 799                                  | 763         |
| Research and development   | 391  | 495         | 967                                  | 877         |
| (Gain) loss on disposal of assets  | (15)   | 427         | (15)                                 | 427         |
| Loss from operations   | (10,179)   | (9,968)     | (21,104)                             | (16,264)    |
| Other income:  |  |             |                                      |             |
| Interest income  | 23   | 13          | 44                                   | 26          |
| Interest expense   | (24)   | (24)        | (47)                                 | (47)        |
| Realized gain (loss) on foreign currency translation                                   | 196  | (194)       | 235                                  | (306)       |
| Total other income (expense)   | 195  | (205)       | 232                                  | (327)       |
| Loss before income taxes   | (9,984)  | (10,173)    | (20,872)                             | (16,591)    |
| Income tax benefit (expense)   |  | 4,279       | (6)                                  | 7,321       |
| Net loss   | \$ (9,984)                                       | \$ (5,894)  | \$ (20,878)                          | \$ (9,270)  |
| Net loss per common share  |  |             |                                      |             |
| Basic  | \$ (0.39)  | \$ (0.26)   | \$ (0.82)                            | \$ (0.41)   |
| Diluted  | \$ (0.39)  | \$ (0.26)   | \$ (0.82)                            | \$ (0.41)   |
| Weighted average common shares outstanding used in computing net loss per common share | 25,706,797                                       | 22,560,603  | 25,511,972                           | 22,555,490  |

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





**Table of Contents****Rubicon Technology, Inc.****Consolidated statements of comprehensive loss**

|   | <b>Three months ended</b> |             | <b>Six months ended</b> |             |
|---|---------------------------|-------------|-------------------------|-------------|
|   | <b>June 30,</b>           |             | <b>June 30,</b>         |             |
|   | <b>2014</b>               | <b>2013</b> | <b>2014</b>             | <b>2013</b> |
|   | <b>(unaudited)</b>        |             |                         |             |
|   | <b>(in thousands)</b>     |             |                         |             |
| Net loss  | \$ (9,984)                | \$ (5,894)  | \$ (20,878)             | \$ (9,270)  |
| Other comprehensive income (loss):                |                           |             |                         |             |
| Unrealized gain (loss) on investments, net of tax | 93                        | 120         | (63)                    | (483)       |
| Unrealized (loss) gain on currency translation    |                           | (1)         | 1                       | (2)         |
| Other comprehensive income (loss)                 | 93                        | 119         | (62)                    | (485)       |
| Comprehensive loss                                | \$ (9,891)                | \$ (5,775)  | \$ (20,940)             | \$ (9,755)  |

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

**Table of Contents****Rubicon Technology, Inc.****Consolidated statements of cash flows**

|  | <b>Six months ended<br/>June 30,<br/>2014      2013<br/>(unaudited)<br/>(in thousands)</b> |            |
|--|--|------------|
| <b>Cash flows from operating activities</b>  |  |            |
| Net loss   | \$ (20,878)  | \$ (9,270) |
| Adjustments to reconcile net loss to net cash (used in) provided by operating activities |  |            |
| Depreciation and amortization  | 6,984  | 6,222      |
| Net (gain) loss on disposal of assets  | (15)   | 427        |
| Stock-based compensation   | 811  | 748        |
| Deferred taxes   |  | (7,328)    |
| Changes in operating assets and liabilities:   |  |            |
| Accounts receivable  | (4,963)  | 9,566      |
| Inventories  | 11,095   | 3,356      |
| Other inventory supplies   | 1,191  | 2,430      |
| Prepaid expenses and other assets  | (700)  | 2,081      |
| Accounts payable   | (127)  | (6,085)    |
| Accrued payroll  | 51   | (577)      |
| Corporate income and franchise taxes   | (61)   | (103)      |
| Advanced payments  | (301)  | (570)      |
| Accrued and other current liabilities  | (30)   | (528)      |
| Net cash (used in) provided by operating activities                                      | (6,943)  | 369        |
| <b>Cash flows from investing activities</b>  |  |            |
| Purchases of property and equipment  | (4,624)  | (3,139)    |
| Proceeds from disposal of assets   | 15   |            |
| Purchases of investments   | (29,798)   | (2,019)    |
| Proceeds from sale of investments  | 10,000   | 7,632      |
| Net cash (used in) provided by investing activities                                      | (24,407)   | 2,474      |
| <b>Cash flows from financing activities</b>  |  |            |
| Proceeds from issuance of common stock, net of issuance costs                            | 34,957   |            |
| Proceeds from exercise of options  | 256  | 27         |
| Restricted cash  | (32)   | 5          |
| Net cash provided by financing activities  | 35,181   | 32         |
| Net effect of currency translation   | (172)  | 331        |
| Net increase in cash and cash equivalents  | 3,659  | 3,206      |

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|  |           |           |
|--|-----------|-----------|
| Cash and cash equivalents, beginning of period | 21,071    | 19,573    |
| Cash and cash equivalents, end of period       | \$ 24,730 | \$ 22,779 |

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

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**Rubicon Technology, Inc.**

**NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS**

**June 30, 2014**

**1. BASIS OF PRESENTATION**

**Interim financial data**

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ( GAAP ) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and notes required by GAAP for complete consolidated financial statements and should be read in conjunction with Rubicon Technology, Inc. s (the Company ) annual report filed on Form 10-K for the fiscal year ended December 31, 2013. In the opinion of management, all adjustments (consisting only of adjustments of a normal and recurring nature) considered necessary for a fair presentation of the results of operations have been included. Consolidated operating results for the three and six months periods ended June 30, 2014 are not necessarily indicative of results that may be expected for the year ending December 31, 2014.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Principles of consolidation**

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, Rubicon Worldwide LLC and Rubicon Sapphire Technology (Malaysia) SDN BHD. All intercompany transactions and balances have been eliminated in consolidation.

**Foreign currency translation and transactions**

Rubicon Worldwide LLC s assets and liabilities are translated into U.S. dollars at exchange rates existing at the respective balance sheet dates and capital accounts at historical exchange rates. The results of operations are translated into U.S. dollars at the average exchange rates during the respective period. Translation adjustments resulting from fluctuations in exchange rates for Rubicon Worldwide LLC are recorded as a separate component of accumulated other comprehensive income (loss) within stockholders equity.

The Company has determined that the functional currency of Rubicon Sapphire Technology (Malaysia) SDN BHD is the U.S. dollar. Rubicon Sapphire Technology (Malaysia) SDN BHD s assets and liabilities are translated into U.S. dollars using the remeasurement method. Non-monetary assets are translated at historical exchange rates and monetary assets are translated at exchange rates existing at the respective balance sheet dates. Translation adjustments for Rubicon Sapphire Technology (Malaysia) SDN BHD are included in determining net income (loss) for the period. The results of operations are translated into U.S. dollars at the average exchange rates during the respective period. The Company records these gains and losses in other income (expense).

Foreign currency transaction gains and losses are generated from the effects of exchange rate changes on transactions denominated in a currency other than the functional currency of the Company, which is the U.S. dollar. Gains and losses on foreign currency transactions are generally required to be recognized in the determination of net income (loss) for the period. The Company records these gains and losses in other income (expense).

## **Investments**

The Company invests available cash primarily in investment grade commercial paper, FDIC guaranteed certificates of deposit, common stock, corporate notes and government securities. Investments classified as available-for-sale securities are carried at fair market value with unrealized gains and losses recorded in accumulated other comprehensive income (loss). Investments in trading securities are reported at fair value, with both realized and unrealized gains and losses recorded in other income (expense), in the Consolidated Statement of Operations. Investments in which the Company has the ability and intent, if necessary, to liquidate in order to support its current operations, are classified as short-term.

The Company reviews its available-for-sale securities investments at the end of each quarter for other-than-temporary declines in fair value based on the specific identification method. The Company considers various factors in determining whether an impairment is other-than-temporary, including the severity and duration of the impairment, changes in underlying credit ratings, forecasted recovery, its ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value and the probability that the scheduled cash payments will continue to be made. When the Company concludes that an other-than-temporary impairment has resulted, the difference between the fair value and carrying value is written off and recorded as a charge on the Consolidated Statement of Operations. As of June 30, 2014, no impairment was recorded.

**Table of Contents****Accounts receivable**

The majority of the Company's accounts receivable is due from manufacturers serving the light-emitting diode ( LED ) and optical systems and specialty electronics devices industries. Credit is extended based on an evaluation of the customer's financial condition. Accounts receivable are due based on contract terms and at stated amounts due from customers, net of an allowance for doubtful accounts.

Accounts outstanding longer than the contractual payment terms are considered past due. The Company determines its allowance for doubtful accounts by considering a number of factors, including the length of time a customer's balance is past due, the customer's current ability to pay and the condition of the general economy and industry as a whole. The Company writes off accounts receivable when they are deemed uncollectible, and payments subsequently received on such receivables are recorded as a reduction to bad debt expense. The following table shows the activity of the allowance for doubtful accounts:

|                                       | <b>June 30,<br/>2014</b> | <b>December 31,<br/>2013</b> |
|---------------------------------------|--------------------------|------------------------------|
|                                       | <b>(in thousands)</b>    |                              |
| Beginning balance                     | \$ 50                    | \$ 286                       |
| Charges to costs and expenses         | 53                       | 24                           |
| Accounts charged off, less recoveries |                          | (260)                        |
| Ending balance                        | \$ 103                   | \$ 50                        |

**Inventories**

Inventories are valued at the lower of cost or market. Raw materials cost is determined using the first-in, first-out method, and work-in-process and finished goods costs are determined on a weighted-average cost basis which includes materials, labor and overhead. The Company reduces the carrying value of its inventories for differences between the cost and the estimated net realizable value, taking into account usage, expected demand, technological obsolescence and other information. In 2014, the Company has accepted sales orders for four-inch and six-inch wafers at prices lower than cost. Based on these sales prices, the Company recorded for the three and six months ended June 30, 2014, a lower of cost or market adjustment which reduced inventory and increased cost of goods sold by \$354,000 and \$1.5 million, respectively. For the three and six months ended June 30, 2013, the Company accepted orders for small diameter core products at prices lower than cost and recorded an adjustment which reduced inventory and increased costs of goods sold by \$107,000 and \$421,000, respectively. Inventories are composed of the following:

|                  | <b>June 30,<br/>2014</b> | <b>December 31,<br/>2013</b> |
|------------------|--------------------------|------------------------------|
|                  | <b>(in thousands)</b>    |                              |
| Raw materials    | \$ 16,185                | \$ 18,651                    |
| Work in progress | 5,155                    | 10,337                       |
| Finished goods   | 2,024                    | 5,324                        |
|                  | \$ 23,364                | \$ 34,312                    |

The Company establishes inventory reserves when conditions exist that suggest inventory may be in excess of anticipated demand or is obsolete based on customer specifications. The Company evaluates the ability to realize the value of its inventory based on a combination of factors, including forecasted sales, estimated current and future market value and changes in customers' product specifications. For the three and six months ended June 30, 2014, the Company determined it had inventory that was excess or obsolete and recorded an adjustment which reduced inventory and increased costs of goods sold by \$363,000. For the three and six months ended June 30, 2013, the Company determined it had inventory that was excess or obsolete and recorded an adjustment which reduced inventory and increased costs of goods sold by \$46,000 and \$255,000, respectively. The Company's method of estimating excess and obsolete inventory has remained consistent for all periods presented.

**Table of Contents****Property and equipment**

Property and equipment consisted of the following:

|   | <b>June 30,<br/>2014</b> | <b>December 31,<br/>2013</b> |
|---|--------------------------|------------------------------|
|   | <b>(in thousands)</b>    |                              |
| Land and land improvements                | \$ 4,133                 | \$ 4,133                     |
| Buildings                                 | 32,461                   | 32,269                       |
| Machinery, equipment and tooling          | 123,994                  | 121,313                      |
| Leasehold improvements                    | 7,640                    | 7,696                        |
| Furniture and fixtures                    | 948                      | 949                          |
| Information systems                       | 1,089                    | 1,077                        |
| Construction in progress                  | 5,944                    | 5,221                        |
| <br>                                      |                          |                              |
| Total cost                                | 176,209                  | 172,658                      |
| Accumulated depreciation and amortization | (63,349)                 | (57,438)                     |
| <br>                                      |                          |                              |
| Property and equipment, net               | \$ 112,860               | \$ 115,220                   |

In response to the Company's current period operating losses combined with the history of continuing operating losses, the Company evaluated the recoverability of certain property and equipment. Based upon the assessment using the Company's most recent projections, no impairment to these assets was indicated as of June 30, 2014, as the recoverable amount of undiscounted cash flows exceeded the carrying amount of these assets.

**Revenue recognition**

Revenue recognized includes product sales and billings for costs and fees for government contracts.

**Product Sales**

The Company recognizes revenue from product sales when earned. Revenue is recognized when, and if, evidence of an arrangement is obtained and the other criteria to support revenue recognition are met, including:

*Persuasive evidence of an arrangement exists.* The Company requires evidence of a purchase order with the customer specifying the terms and specifications of the product to be delivered, typically in the form of a signed quotation or purchase order from the customer.

*Title has passed and the product has been delivered.* Title passage and product delivery generally occur when the product is delivered to a common carrier.



*The price is fixed or determinable.* All terms are fixed in the signed quotation or purchase order received from the customer. The purchase orders do not contain rights of cancellation, return, exchange or refund.

*Collection of the resulting receivable is reasonably assured.* The Company's standard arrangement with customers includes payment terms. Customers are subject to a credit review process that evaluates each customer's financial position and its ability to pay. Collectability is determined by considering the length of time the customer has been in business and its history of collections. If it is determined that collection is not probable, no product is shipped and no revenue is recognized unless cash is received in advance.

#### Government Contracts

The Company recognizes research and development revenue in the period during which the related costs are incurred over the contractually defined period. In July 2012, the Company signed a contract with the Air Force Research Laboratory to produce large-area sapphire windows on a cost plus fixed fee basis. The Company records research and development revenue on a gross basis as costs are incurred, plus a portion of the fixed fee. For the three and six months ended June 30, 2014, \$272,000 and \$397,000 of revenue was recorded, respectively, and for the three and six months ended June 30, 2013, \$110,000 and \$208,000 of revenue was recorded, respectively. The contract will continue for three years and the total value of the contract is \$4.7 million, of which \$3.1 million has been recorded through June 30, 2014.

The Company does not provide maintenance or other services and it does not have sales that involve multiple elements or deliverables.

**Table of Contents****Net income per common share**

Basic net income per common share is computed by dividing net income by the weighted-average number of common shares outstanding during the period. Diluted net income per common share is computed by dividing net income by the weighted-average number of diluted common shares outstanding during the period. Diluted shares outstanding are calculated by adding to the weighted-average shares any outstanding stock options and warrants based on the treasury stock method.

Diluted net loss per share is the same as basic net loss per share for the three and six months ended June 30, 2014 because the effects of potentially dilutive securities are anti-dilutive.

At June 30, 2014 and 2013, the Company had the following anti-dilutive securities outstanding which were excluded from the calculation of diluted net loss per share:

|               | <b>June 30,<br/>2014</b> | <b>June 30,<br/>2013</b> |
|---------------|--------------------------|--------------------------|
| Warrants      | 170,323                  | 133,718                  |
| Stock options | 354,793                  | 254,350                  |
| <b>Total</b>  | <b>525,116</b>           | <b>388,068</b>           |

**Other comprehensive income (loss)**

Comprehensive income (loss) is defined as the change in equity of a business enterprise from transactions and other events from non-owner sources. Comprehensive income (loss) includes net earnings (loss) and other non-owner changes in equity that bypass the statement of operations and are reported in a separate component of equity. For the six months ended June 30, 2014 and for the twelve months ended December 31, 2013, other comprehensive income (loss) includes the unrealized gain (loss) on investments and foreign currency translation adjustments.

The following table summarizes the components of comprehensive loss:

|   | <b>June 30,<br/>2014</b> | <b>December 31,<br/>2013</b> |
|---|--------------------------|------------------------------|
|   | <b>(in thousands)</b>    |                              |
| Unrealized loss on investments          | \$ (469)                 | \$ (406)                     |
| Unrealized loss on currency translation | (11)                     | (12)                         |
| <b>Ending Balance</b>                   | <b>\$ (480)</b>          | <b>\$ (418)</b>              |

**Recent accounting pronouncement**

In July 2013, the FASB issued Accounting Standards Update No. 2013-11 ( ASU 2013-11 ), *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*. ASU No. 2013-11 clarifies that an unrecognized tax benefit, or a portion of an

unrecognized tax benefit, should be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward, except as follows. To the extent a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date under the tax law of the applicable jurisdiction to settle any additional income taxes that would result from the disallowance of a tax position or the tax law of the applicable jurisdiction does not require the entity to use, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit should be presented in the financial statements as a liability and should not be combined with deferred tax assets. The assessment of whether a deferred tax asset is available is based on the unrecognized tax benefit and deferred tax asset that exist at the reporting date and should be made presuming disallowance of the tax position at the reporting date. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The adoption of ASU 2013-11 has not had a material impact on the Company's consolidated financial statements.

In May 2014, the FASB issued Accounting Standards Update No. 2014-09 (ASU 2014-09), *Revenue from Contracts with Customers*, which supersedes most of the current revenue recognition requirements. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. Other major provisions include capitalization of certain contract costs, consideration of time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The guidance is effective for the interim and annual periods beginning on or after December 15, 2016 (early adoption is not permitted). The guidance permits the use of either a retrospective or cumulative effect transition method. The adoption of ASU 2014-09 is not expected to have a material impact on the Company's consolidated financial statements.

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In June 2014, the FASB issued Accounting Standards Update No. 2014-12 ( ASU 2014-12 ), *Compensation Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period* related to stock compensation. The new standard requires that a performance target that affects vesting, and that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the periods for which the requisite service has already been rendered. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015 and can be applied either prospectively or retrospectively to all awards outstanding as of the beginning of the earliest annual period presented as an adjustment to opening retained earnings. Early adoption is permitted. The Company is evaluating the impact, if any, of adopting ASU 2014-12 on its financial statements.

**3. SEGMENT INFORMATION**

The Company evaluates operations as one reportable segment, as it only reports profit and loss information on an aggregate basis to its chief operating decision maker.

Revenue is attributed by geographic region based on ship-to location of the Company's customers. The following table summarizes revenue by geographic region:

|               | <b>Three months ended<br/>June 30,</b> |             | <b>Six months ended<br/>June 30,</b> |             |
|---------------|--|-------------|--------------------------------------|-------------|
|               | <b>2014</b>                            | <b>2013</b> | <b>2014</b>                          | <b>2013</b> |
|               | <b>(in thousands)</b>                  |             | <b>(in thousands)</b>                |             |
| China         | \$ 7,420                               | \$ 4,835    | \$ 13,870                            | \$ 5,793    |
| Taiwan        | 2,269                                  | 1,155       | 6,033                                | 1,194       |
| Korea         | 2,153                                  | 9           | 4,049                                | 579         |
| United States | 1,590                                  | 836         | 2,960                                | 1,751       |
| Israel        | 390                                    | 118         | 686                                  | 254         |
| Japan         | 157                                    | 86          | 425                                  | 150         |
| Australia     | 145                                    | 3,122       | 145                                  | 8,528       |
| France        |  | 84          | 12                                   | 112         |
| Other         | 345                                    | 310         | 557                                  | 501         |
| Total Revenue | \$ 14,469                              | \$ 10,555   | \$ 28,737                            | \$ 18,862   |

The following table summarizes revenue by product type:

|      | <b>Three months ended<br/>June 30,</b> |             | <b>Six months ended<br/>June 30,</b> |             |
|------|--|-------------|--------------------------------------|-------------|
|      | <b>2014</b>                            | <b>2013</b> | <b>2014</b>                          | <b>2013</b> |
|      | <b>(in thousands)</b>                  |             | <b>(in thousands)</b>                |             |
| Core | \$ 9,572                               | \$ 5,979    | \$ 20,927                            | \$ 6,966    |

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|                        |           |           |           |           |
|------------------------|-----------|-----------|-----------|-----------|
| Wafer                  | 2,857     | 3,312     | 3,952     | 9,369     |
| Optical                | 1,765     | 1,154     | 3,403     | 2,298     |
| Research & Development | 272       | 110       | 397       | 208       |
| Other                  | 3         |           | 58        | 21        |
| Total Revenue          | \$ 14,469 | \$ 10,555 | \$ 28,737 | \$ 18,862 |

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The following table summarizes assets by geographic region:

|                  | <b>June 30,<br/>2014</b> | <b>December 31,<br/>2013</b> |
|------------------|--------------------------|------------------------------|
|                  | <b>(in thousands)</b>    |                              |
| United States    | \$ 174,874               | \$ 157,572                   |
| Malaysia         | 42,238                   | 45,086                       |
| Other            | 34                       | 37                           |
| <br>Total Assets | <br>\$ 217,146           | <br>\$ 202,695               |

**4. INVESTMENTS**

The Company invests available cash primarily in investment grade commercial paper, FDIC guaranteed certificates of deposit, common stock, corporate notes and government securities. The Company's short-term investments balance of \$33.3 million as of June 30, 2014, is comprised of FDIC Guaranteed certificates of deposit of \$4.5 million, corporate notes and bonds of \$23.5 million, commercial paper of \$4.0 million and common stock of \$1.3 million. The Company's investments are classified as available-for-sale securities and are carried at fair market value with unrealized gains and losses recorded in accumulated other comprehensive income (loss).

The following table presents the amortized cost and gross unrealized gains and losses on all securities at June 30, 2014:

|   | <b>Amortized<br/>Cost</b> | <b>Gross<br/>Unrealized<br/>Gains</b> | <b>Gross<br/>Unrealized<br/>Losses</b> | <b>Fair<br/>Value</b> |
|---|---------------------------|---------------------------------------|--|-----------------------|
|   | <b>(in thousands)</b>     |                                       |  |                       |
| <b>Short-term Investments:</b>          |                           |                                       |  |                       |
| FDIC Guaranteed certificates of deposit | \$ 4,560                  | \$                                    | \$ 5                                   | \$ 4,555              |
| Common stock                            | 2,000                     |                                       | 743                                    | 1,257                 |
| Corporate Notes and Bonds               | 23,456                    |                                       | 7                                      | 23,449                |
| Commercial Paper                        | 3,998                     | 1                                     |  | 3,999                 |
| <br>Total short-term investments        | <br>\$ 34,014             | <br>\$ 1                              | <br>\$ 755                             | <br>\$ 33,260         |

The following table presents the amortized cost, and gross unrealized gains and losses on all securities at December 31, 2013:

|  | <b>Amortized<br/>Cost</b> | <b>Gross<br/>Unrealized<br/>Gains</b> | <b>Gross<br/>Unrealized<br/>Losses</b> | <b>Fair<br/>Value</b> |
|--|---------------------------|---------------------------------------|--|-----------------------|
|  | <b>(in thousands)</b>     |                                       |  |                       |

| Short-term Investments:                 |               |        |            |               |
|---|---------------|--------|------------|---------------|
| FDIC Guaranteed certificates of deposit | \$ 6,160      | \$     | \$ 6       | \$ 6,154      |
| Common stock                            | 2,000         |        | 642        | 1,358         |
| Corporate Notes/Bonds                   | 3,058         |        | 1          | 3,057         |
| Commercial Paper                        | 2,998         |        |            | 2,998         |
| <br>Total short-term investments        | <br>\$ 14,216 | <br>\$ | <br>\$ 649 | <br>\$ 13,567 |

The Company values its investments at fair value, defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard below describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company's fixed income available-for-sale securities consist of high quality, investment grade commercial paper, corporate notes and government securities. The Company values these securities based on pricing from pricing vendors, who may use quoted prices in active markets for identical assets (Level 1 inputs) or inputs other than quoted prices that are observable either directly or indirectly

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(Level 2 inputs) in determining fair value. The valuation techniques used to measure the fair value of the Company's financial instruments having Level 2 inputs were derived from non-binding market consensus prices that are corroborated by observable market data, quoted market prices for similar instruments, or pricing models, such as discounted cash flow techniques.

The following table summarizes the Company's financial assets measured at fair value on a recurring basis as of June 30, 2014:

|  | Level 1          | Level 2<br>(in thousands) | Level 3   | Total            |
|--|------------------|---------------------------|-----------|------------------|
| <b>Cash Equivalents:</b>                 |                  |                           |           |                  |
| Money market funds                       | \$ 20,928        | \$                        | \$        | \$ 20,928        |
| <b>Investments:</b>                      |                  |                           |           |                  |
| Available-for-sales securities - current |                  |                           |           |                  |
| FDIC Guaranteed certificates of deposit  |                  | 4,555                     |           | 4,555            |
| Common stock                             | 1,257            |                           |           | 1,257            |
| Corporate notes/bonds                    |                  | 23,449                    |           | 23,449           |
| Commercial paper                         |                  | 3,999                     |           | 3,999            |
| <b>Total</b>                             | <b>\$ 22,185</b> | <b>\$ 32,003</b>          | <b>\$</b> | <b>\$ 54,188</b> |

The following table summarizes the Company's financial assets measured at fair value on a recurring basis as of December 31, 2013:

|   | Level 1          | Level 2<br>(in thousands) | Level 3   | Total            |
|---|------------------|---------------------------|-----------|------------------|
| <b>Cash Equivalents:</b>                  |                  |                           |           |                  |
| Money market funds                        | \$ 15,541        | \$                        | \$        | \$ 15,541        |
| <b>Investments:</b>                       |                  |                           |           |                  |
| Available-for-sales securities - current: |                  |                           |           |                  |
| FDIC Guaranteed certificates of deposit   |                  | 6,154                     |           | 6,154            |
| Common stock                              | 1,358            |                           |           | 1,358            |
| Corporate notes/bonds                     |                  | 3,057                     |           | 3,057            |
| Commercial paper                          |                  | 2,998                     |           | 2,998            |
| <b>Total</b>                              | <b>\$ 16,899</b> | <b>\$ 12,209</b>          | <b>\$</b> | <b>\$ 29,108</b> |

In addition to the debt securities noted above, the Company had approximately \$3.8 million and \$5.5 million of time deposits included in cash and cash equivalents as of June 30, 2014 and December 31, 2013, respectively.

**5. RELATED PARTY TRANSACTIONS**

In November 2008, the Company purchased 1,345,444 shares of Peregrine Series D-1 Preferred shares for a total of \$2.0 million, which represented less than 1% of Peregrine's shares outstanding. The terms and stock price of the



purchase were the same as for the other investors who participated. Peregrine is a customer of the Company. On August 8, 2012, Peregrine completed its initial public offering, which resulted in a conversion of the preferred shares to common stock at a ratio of 7.34:1, or 183,303 shares of common stock. For the three months ended June 30, 2014, the Company recorded an unrealized gain on investments of \$148,000 and for the six months ended June 30, 2014, the Company recorded an unrealized loss on investments of \$101,000. For the three and six months ended June 30, 2014, revenue from Peregrine was \$145,000. As of June 30, 2014 accounts receivable from Peregrine were \$145,000 and there was no accounts receivable from Peregrine at December 31, 2013. The pricing terms and conditions of the sales to Peregrine are similar to those available to the Company's other non-related customers.

## **6. SIGNIFICANT CUSTOMERS**

For the three months ended June 30, 2014, the Company had two customers individually that accounted for approximately 29% and 10% of revenue and for the three months ended June 30, 2013, the Company had two customers individually that accounted for approximately 30% and 27% of revenue. For the six months ended June 30, 2014, the Company had two customers individually that accounted for approximately 24% and 10% of revenue. For the six months ended June 30, 2013, the Company had two customers individually that accounted for approximately 46% and 15% of revenue. No other customers accounted for more than 10% of revenue for these reported periods in 2014 and 2013.

Customers individually representing more than 10% of trade receivables accounted for approximately 57% and 47% of accounts receivable as of June 30, 2014 and December 31, 2013, respectively. The Company grants credit to customers based on an evaluation of their financial condition. Losses from credit sales are provided for in the financial statements.

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**7. STOCKHOLDERS EQUITY**

**Common Stock**

As of June 30, 2014, the Company had reserved 1,828,637 shares of common stock for issuance upon the exercise of outstanding common stock options and the vesting of restricted stock units. Also, 2,307,879 shares of the Company's common stock were reserved for future grants of stock options (or other similar equity instruments) under the Company's 2007 Stock Incentive Plan (the "2007 Plan") as of June 30, 2014. In addition, 267,826 shares of the Company's common stock were reserved for future exercise of outstanding warrants as of June 30, 2014.

On January 13, 2014, the Company completed a public offering of common stock in which a total of 3,047,500 shares were sold including 397,500 shares pursuant to the full exercise of the underwriter's over-allotment option, at a price of \$10.65 per share. The Company raised a total of \$32.5 million in gross proceeds from the offering, or approximately \$30.3 million in net proceeds after deducting the underwriting discount and expenses of \$2.3 million.

On March 20, 2014, the selling stockholders of the Company completed a public offering of 2,875,000 shares of common stock and the Company sold 375,000 shares pursuant to the full exercise of the underwriter's over-allotment option each at a price of \$13.00 per share. The Company raised a total of \$4.9 million in gross proceeds from the offering, or approximately \$4.4 million in net proceeds after deducting the underwriting discount and expenses of \$319,000 and estimated costs of \$148,000.

**Warrants**

For the three and six months ended June 30, 2014, no common stock warrants were exercised. At June 30, 2014 and December 31, 2013, there were 267,826 common stock warrants outstanding.

**8. STOCK INCENTIVE PLANS**

The Company sponsored a stock option plan, the 2001 Plan, which allowed for the granting of incentive and nonqualified stock options for the purchase of common stock. The maximum number of shares that may be awarded or sold under the 2001 Plan was 1,449,667 shares. Each option entitles the holder to purchase one share of common stock at the specified option exercise price. The exercise price of each incentive stock option granted must not be less than the fair market value on the grant date. At the discretion of management and with the approval of the Board of Directors, the Company granted options under the 2001 Plan. Management and the Board of Directors determined vesting periods and expiration dates at the time of the grant. On August 2, 2011, the plan expired.

In August 2007, the Company adopted the 2007 Plan, which allows for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance awards and bonus shares. The Board of Directors has appointed a committee to administer the plan. The plan committee determines the type of award to be granted, the fair market value, the number of shares covered by the award, and the time when the award vests and may be exercised.

The Company uses the Black-Scholes option pricing model to value stock options issued after January 1, 2006. The Company uses a three year historical stock price average to determine its volatility assumptions. The assumed risk-free rates were based on U.S. Treasury rates in effect at the time of grant with a term consistent with the expected option lives. The expected term is based upon the vesting term of the Company's options, a review of a peer group of companies, and expected exercise behavior. The forfeiture rate is based on past history of forfeited options. The expense is being allocated using the straight-line method. For the three and six months ended June 30, 2014, the

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Company recorded \$207,000 and \$496,000 respectively, of stock option compensation expense. For the three and six months ended June 30, 2013, the Company recorded \$302,000 and \$667,000 respectively, of stock option compensation expense. As of June 30, 2014, the Company has \$819,000 of total unrecognized compensation cost related to non-vested awards granted under the Company's stock-based plans that it expects to recognize over a weighted-average period of 1.86 years. The Company accounts for options issued prior to January 1, 2006 under the intrinsic value method.

The following table summarizes the activity of the stock incentive and equity plans as of June 30, 2014 and changes during the six months then ended:

|                     | <b>Shares<br/>available<br/>for grant</b> | <b>Number of<br/>options<br/>outstanding</b> | <b>Weighted-<br/>average option<br/>exercise<br/>price</b> | <b>Number of<br/>restricted<br/>stock and<br/>board<br/>shares<br/>issued</b> | <b>Number of<br/>restricted<br/>stock<br/>units<br/>outstanding</b> |
|---------------------|---|--|--|---|---|
| At January 1, 2014  | 2,240,103                                 | 1,926,070                                    | \$ 12.46   | 133,639   | 45,941  |
| Granted             | (47,725)                                  | 19,800                                       | 10.48  | 27,925  |   |
| Exercised           |   | (47,654)                                     | 5.37   |   |   |
| Cancelled/forfeited | 115,501                                   | (112,613)                                    | 19.62  |   | (2,907)   |
| At June 30, 2014    | 2,307,879                                 | 1,785,603                                    | \$ 12.19   | 161,564   | 43,034  |

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The Company's aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock. Based on the fair market value of the common stock at June 30, 2014 and 2013, there was no intrinsic value of the options outstanding and exercisable. The weighted average fair value per share of options granted for the six months ended June 30, 2014 was \$10.48 and the fair value of each option grant was estimated at the date of grant using the Black-Scholes option pricing model using an expected term of 5.3 years, risk-free interest rates of 0.76%, expected volatility of 77% and no dividend yield. The Company used an expected forfeiture rate of 25.56%.

For the three and six months ended June 30, 2014 the Company recorded \$23,000 and \$48,000, respectively, of restricted stock unit ( RSU ) expense. As of June 30, 2014, there was \$309,000 of unrecognized compensation cost related to the non-vested RSUs. This cost is expected to be recognized over a weighted-average period of 3.34 years. At June 30, 2014 the intrinsic value of these RSUs was \$377,000.

For the three and six months ended June 30, 2014, the Company recorded \$134,000 and \$267,000, respectively, of stock compensation expense related to restricted stock. For the three and six months ended June 30, 2013, the Company recorded \$40,000 and \$81,000, respectively, of stock compensation expense related to restricted stock.

A summary of the Company's non-vested options and restricted stock units during the six month period ended June 30, 2014 is presented below:

|                               | <b>Options</b> | <b>Weighted-<br/>average<br/>exercise<br/>price</b> |
|-------------------------------|----------------|---|
| Non-vested at January 1, 2014 | 372,507        | \$ 13.57  |
| Granted                       | 19,800         | 10.48   |
| Vested                        | (81,853)       | 20.15   |
| Forfeited                     | (53,848)       | 15.98   |
| Non-vested at June 30, 2014   | 256,606        | \$ 10.72  |

An analysis of restricted stock issued is as follows:

|   |          |
|---|----------|
| Non-vested restricted stock as of December 31, 2013 | 53,714   |
| Granted   | 27,925   |
| Vested  | (29,330) |
| Non-vested restricted stock as of June 30, 2014     | 52,309   |

**9. COMMITMENTS AND CONTINGENCIES****Purchase Commitments**

The Company has entered into agreements for electricity and to purchase equipment and components to construct furnaces. These agreements will result in the Company purchasing electricity, equipment or components for a total cost of approximately \$6.0 million with deliveries occurring through December 2016.

### **Litigation**

From time to time, the Company experiences routine litigation in the normal course of its business. The management of the Company does not believe any pending litigation will have a material adverse effect on the financial condition or results of operations of the Company.

## **10. INCOME TAXES**

The Company is subject to income taxes in the U.S. and Malaysia. On a quarterly basis, the Company assesses the recoverability of deferred tax assets and the need for a valuation allowance. Such evaluations involve the application of significant judgment and multiple factors, both positive and negative, are considered. For the period ended June 30, 2014, a valuation allowance has been included in the 2014 forecasted effective tax rate. Due to the losses in the fourth quarter of 2013, the Company is in a cumulative loss position for the past three years, which is considered significant negative evidence that is difficult to overcome on a more likely than not standard through objectively verifiable data. While the Company believes its financial outlook remains positive, under the accounting standards objective verifiable evidence is given greater weight than subjective evidence such as the Company's projections for future growth. Based on an evaluation in accordance with the accounting standards, as of December 31, 2013, a valuation allowance has been recorded against the net U.S. deferred tax assets in order to measure only the portion of the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. At June 30, 2014, the Company continues to be in a three year cumulative loss position; therefore, until an appropriate level of profitability is attained, the

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Company expects to maintain a full valuation allowance on its U.S. net deferred tax assets. Any U.S. tax benefits or tax expense recorded on the Company's Consolidated Statement of Operations will be offset with a corresponding valuation allowance until such time that the Company changes its determination related to the realization of deferred tax assets. In the event that the Company changes its determination as to the amount of deferred tax assets that can be realized, the Company will adjust its valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

The tax provision for the three and six months ended June 30, 2013 is based on an estimated combined statutory effective tax rate. For the three and six months ended June 30, 2013, the Company recorded a tax benefit of \$4.2 million and \$7.3 million, respectively, for an effective tax rate of 42.1% and 44.1%, respectively. For the three and six months ended June 30, 2013, the difference between the Company's effective tax rate and the U.S. federal 35% statutory rate was primarily related to profits recorded in the Company's Malaysia operation for which the Company has a tax holiday, state tax benefit, and the accrual for an uncertain tax position.

**11. CREDIT FACILITY**

On January 2, 2013, the Company entered into a three-year term agreement with a bank to provide the Company with a senior secured credit facility of \$25.0 million. The agreement provides for the Company to borrow up to 80% of eligible accounts receivable and up to 35% of domestically held raw material and finished goods inventory. Advances against inventory are limited to 40% of the aggregate outstanding on the revolving line of credit and \$10.0 million in aggregate. The Company has the option to borrow at an interest rate of LIBOR plus 2.75% or the Wall Street Journal prime rate plus 0.50%. If the Company maintains liquidity of \$20.0 million or greater with the lending institution, then the borrowing interest rate options are LIBOR plus 2.25% or the Wall Street Journal prime rate. There is an unused revolving line facility fee of 0.375% per annum. The facility is secured by a first priority interest in substantially all of the Company's personal property, excluding intellectual property. The Company is required to maintain an adjusted quick ratio of 1.40 to 1.00, maintain operating and other deposit accounts with the bank or bank's affiliates of 25% of the Company's total worldwide cash, securities and investments, and the Company can pay dividends or repurchase capital stock only with the bank's consent during the three year term. For the six months ended June 30, 2014, the Company did not draw on this facility. For the three and six months ended June 30, 2014 and 2013, the Company recorded \$24,000 and \$47,000, respectively of interest expense charged on the unused portion of the facility.

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

All statements, other than statements of historical facts, included in this Quarterly Report on Form 10-Q regarding our estimates, expectations, beliefs, intentions, projections or strategies for the future, results of operations, financial position, net sales, projected costs, prospects and plans and objectives of management for future operations may be forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. We have based these forward-looking statements on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives and financial needs. These forward looking statements can be identified by the use of terms and phrases such as believe, plan, intend, anticipate, target, estimate, expect, and the like, and/or or conditional constructions such as will, may, could, should, and the like (or the negative thereof). Items contemplating or making assumptions about actual or potential future sales, market size and trends or operating results also constitute forward-looking statements.

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Before investing in our common stock, investors should be aware that the occurrence of the risks, uncertainties and events described in the section entitled Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2013 and elsewhere in this Quarterly Report could have a material adverse effect on our business, results of operations and financial condition.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are inherently subject to known and unknown business, economic and other risks and uncertainties that may cause actual results to be materially different from those discussed in these forward-looking statements. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of this Quarterly Report. We assume no obligation to update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of this Quarterly Report, other than as may be required by applicable law or regulation. If one or more of these risks or uncertainties materialize, or if the underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected.

You should read this Quarterly Report, the documents that we reference in this Quarterly Report and have filed with the Securities and Exchange Commission ( SEC ) as exhibits and our Annual Report on Form 10-K for the year ended December 31, 2013 with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

Unless otherwise indicated, the terms Rubicon, the Company, we, us, and our refer to Rubicon Technology, Inc.

**OVERVIEW**

We are a vertically integrated, advanced electronic materials provider specializing in high-quality monocrystalline sapphire for applications in light-emitting diodes ( LEDs ), optical systems and specialty electronic devices. The emergence of sapphire in commercial volumes at competitive prices has enabled the development of new technologies such as high brightness ( HB ) white, blue and green LEDs and highly-integrated radio frequency integrated circuits ( RFICs ). Recently, sapphire has been adopted for use in several new applications in mobile devices, specifically camera lens covers, dual flashes and home buttons on certain newer model smartphones. The reason sapphire was adopted for use on the home button on certain smartphones is because of the scratch resistance and increased touch capacitance offered by sapphire, which are important characteristics to ensure the effectiveness of the fingerprint

recognition security built into the device. We believe that the use of fingerprint recognition security and other biometrics could become more prevalent in the future, which could become a strong growth driver for sapphire. We apply our proprietary crystal growth technology to produce high-quality sapphire products efficiently to supply our end-markets, and we work closely with our customers to meet their quality and delivery needs. Products are made to varying specifications, such as crystal planar orientations and thicknesses. Our largest product lines are:

sapphire cores, two to four-inches in diameter, which our customers further process into wafers for use in LED applications and into components such as lens covers for mobile devices;

four-inch and six-inch sapphire wafers that are used as substrates for the manufacture of LED chips; and

optical sapphire components in various shapes and sizes, including round and rectangular windows and blanks, domes, tubes and rods. These optical sapphire products are used in equipment for a wide variety of end markets, including defense and aerospace, medical devices, oil and gas drilling, semiconductor manufacturing and other markets.



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For the LED market, we sell two to four-inch material primarily in core form and four, six and eight-inch material primarily in polished wafer form. Eight-inch wafers are sold primarily for customers' research and development efforts at this time. We have the ability to produce cores and wafers of up to twelve inches in diameter to support production of chips for next-generation LED and other electronic applications. Larger sapphire also has current applications in the optical markets. In other semiconductor markets, we sold primarily six-inch wafers; our major customer in that market, however, modified its technology to produce its higher volume RFIC products on a substrate other than sapphire, a development that significantly reduced the amount of sapphire demand from that market beginning in early 2014. Other non-LED semiconductor customers are using sapphire in research and development at this time.

We recently introduced a new product offering, patterned sapphire substrates or PSS. HB LED chip manufacturers etch a pattern onto the surface of the sapphire wafer in the early stages of their production process in order to improve light output. We have leveraged our capability in producing larger diameter sapphire wafers to offer pre-patterned, larger diameter (four-inch and six-inch) wafers to the LED market.

We recognize research and development revenue in the period during which the related costs and fees are incurred.

Historically, a significant portion of our revenue has been derived from sales to relatively few customers. For the three months ended June 30, 2014 and 2013, we had two customers that in aggregate accounted for approximately 39% and 57% of our revenue, respectively. For the six months ended June 30, 2014 and 2013, we had two customers that in aggregate accounted for approximately 34% and 61% of our revenue, respectively. Other than as discussed above, none of our customers accounted for more than 10% of our revenue for such periods. Although we continue to strive to diversify and expand our customer base, we expect our revenue to continue to be concentrated among a small number of customers. We expect that our significant customers may change from period to period.

We recognize revenue based upon shipping terms with our customers and from our government contract as costs and fees are incurred. Delays in product orders or changes to the timing of shipments could cause our quarterly revenue to vary significantly. We derive a significant portion of our revenue from customers outside of the U.S. In most periods, the majority of our sales are to the Asian market and we expect that region to continue to be a major source of revenue for us. All of our revenue and corresponding accounts receivable are denominated in U.S. dollars.

We manufacture and ship our products from our facilities in the Chicago metropolitan area and from our facility in Penang, Malaysia. We have an aggregate of approximately 237,000 square feet of manufacturing and office space in Batavia, Franklin Park and Bensenville, Illinois and a 65,000 square foot facility in Penang, Malaysia, where we process sapphire grown by us in our Illinois facilities into finished cores and wafers. Our Malaysia facility currently finishes the majority of our core processing and can produce production volumes of polished wafers. In March 2012, we acquired additional land in Batavia, Illinois to expand our crystal growth capacity. We have not yet determined when we will begin construction on this facility.

Our cost of goods sold consists primarily of manufacturing materials, labor, manufacturing-related overhead such as utilities, depreciation and rent, provisions for excess and obsolete inventory reserves, freight and warranties. We manufacture our products at our Illinois and Malaysia manufacturing facilities based on customer orders. We purchase materials and supplies to support such current and future demand. We are subject to variations in the cost of raw materials and consumables from period to period because we do not have long-term fixed-price agreements with most of our suppliers. We mitigate the potential impact of fluctuations in energy costs by entering into long-term purchase agreements. Once our current agreements expire, if electricity prices increase significantly, we may not be able to pass these price increases through to our customers on a timely basis, if at all, which could adversely affect our gross margins and results of operations.

Our operating expenses are comprised of sales and marketing, research and development ( R&D ) and general and administrative ( G&A ) expenses. G&A expenses consist primarily of salaries and associated costs for employees in finance, human resources, information technology and administrative activities, charges for accounting, legal, and insurance fees, and stock-based compensation. The majority of our stock-based compensation relates to administrative personnel and is accounted for as a G&A expense.

Other income (expense) consists of interest income, interest expense and realized gains and losses on investments and currency translation.

We account for income taxes under the asset and liability method whereby the expected future tax consequences of temporary differences between the book value and the tax basis of assets and liabilities are recognized as deferred tax assets and liabilities, using enacted tax rates in effect for the year in which the differences are expected to be recognized. Our updated analysis of ownership changes that limit the utilization of our net operating loss ( NOL ) carryforwards as of March 31, 2014, shows no ownership change. Due to the losses in the fourth quarter of 2013, we are in a cumulative loss position for the past three years, which is considered significant negative evidence that is difficult to overcome on a more likely than not standard through objectively verifiable data. Based on an evaluation in accordance with the accounting standards, as of December 31, 2013, a valuation allowance has been recorded against the net U.S. deferred tax assets in order to measure only the portion of the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. At June 30, 2014, we continue to be in a three year cumulative loss position and therefore a full valuation allowance was provided and no tax benefit will be recorded until we can conclude that it is more likely than not that our deferred tax assets will be realized.

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We anticipate our capital expenditures will be between \$10.0 million and \$15.0 million for the full year 2014. These expenditures will be primarily focused on investments in equipment to produce patterned sapphire substrates and to enhance our polishing platform. Our capital expenditures in the six months ended June 30, 2014 were \$4.6 million.

**RESULTS OF CONSOLIDATED OPERATIONS THREE MONTHS ENDED JUNE 30, 2014 AND 2013**

The following table sets forth our consolidated statements of operations for the periods indicated:

|                                   | <b>Three months ended<br/>June 30,</b> |             |
|-----------------------------------|--|-------------|
|                                   | <b>2014</b>                            | <b>2013</b> |
|                                   | <b>(in millions)</b>                   |             |
| Revenue                           | \$ 14.5                                | \$ 10.6     |
| Cost of goods sold                | 21.8                                   | 17.0        |
| Gross loss                        | (7.3)                                  | (6.4)       |
| Operating expenses:               |  |             |
| General and administrative        | 2.2                                    | 2.2         |
| Sales and marketing               | 0.4                                    | 0.4         |
| Research and development          | 0.4                                    | 0.5         |
| (Gain) loss on disposal of assets | (0.1)                                  | 0.5         |
| Total operating expenses          | 2.9                                    | 3.6         |
| Loss from operations              | (10.2)                                 | (10.0)      |
| Other income (expense)            | 0.2                                    | (0.2)       |
| Loss before income taxes          | (10.0)                                 | (10.2)      |
| Income tax benefit                |  | 4.3         |
| Net loss                          | \$ (10.0)                              | \$ (5.9)    |

The following table sets forth our consolidated statements of operations as a percentage of revenue for the periods indicated:

|                    | <b>Three months ended<br/>June 30,</b> |             |
|--------------------|--|-------------|
|                    | <b>2014</b>                            | <b>2013</b> |
|                    | <b>(percentage of total)</b>           |             |
| Revenue            | 100%                                   | 100%        |
| Cost of goods sold | 150                                    | 160         |
| Gross loss         | (50)                                   | (60)        |

|                                 |           |           |
|---------------------------------|-----------|-----------|
| Operating expenses:             |           |           |
| General and administrative      | 15        | 21        |
| Sales and marketing             | 2         | 4         |
| Research and development        | 3         | 5         |
| Loss on disposal of assets      |           | 5         |
| <b>Total operating expenses</b> | <b>20</b> | <b>35</b> |
| Loss from operations            | (70)      | (95)      |
| Other income (expense)          | 1         | (1)       |
| Loss before income taxes        | (69)      | (96)      |
| Income tax benefit              |           | 41        |
| Net loss                        | (69)%     | (55)%     |

*Revenue.* Revenue was \$14.5 million and \$10.6 million for the three months ended June 30, 2014 and 2013, respectively, an increase of \$3.9 million. We experienced higher revenue from sales of our core products by \$3.6 million, of which \$1.4 million was attributable to an increase in volume and \$2.2 million was attributable to an increase in price. We experienced lower revenue from sales of our polished wafers by \$455,000, which was the result of \$3.1 million in lower sales of polished wafers sold to the SoS market, partially offset by a \$2.6 million increase in polished wafers sold to the LED market. Of the \$455,000 reduction in revenue, a decrease of \$3.9 million was attributable to lower prices offset by an increase in volume \$3.5 million. We also had increased revenue of \$611,000 from optical products due to a slight increase in the sales of sapphire for sensor and instrumentation applications. Demand for our core products was stronger in the second quarter 2014 compared to the second quarter 2013, due to increased demand from the LED general lighting market and the adoption of sapphire in newer applications like the lens cover, dual flash and home button on certain smartphones. We continue to experience limited demand and weak pricing for LED polished wafers, but expect increased adoption of six-inch wafers in the LED

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market. We recently began offering four-inch sapphire in polished wafer form in addition to the core form which we have traditionally offered. In the second quarter 2014, we shipped our first production volume of four-inch polished wafers, however the pricing remains low. Demand for four-inch sapphire has been increasing as many LED chip manufacturers have been converting from the use of two-inch to four-inch sapphire substrates which results in greater efficiency. As demand for four-inch polished wafers increases, we anticipate pricing to improve. With the LED markets movement away from two-inch substrates, prices for two-inch sapphire have been under pressure in recent months. In addition, we believe that recent capacity additions in the sapphire market, which are primarily targeted at the developing mobile device market, are temporarily impacting the two-inch market. As a result, we expect very limited demand for two-inch material in the third quarter of this year. However, we expect the smartphone market to use an increased amount of two-inch sapphire in coming years as more smartphone manufacturers adopt sapphire for camera lens covers and/or other applications such as biometrics. The manufacturer of the majority of SoS chips began producing new products on a substrate other than sapphire starting in 2014 and, therefore, the amount of sapphire wafers sold into that market was reduced significantly. We operate in an extremely volatile market, so the amount of price or volume change is difficult to predict.

*Gross loss.* Gross loss was \$7.3 million and \$6.4 million for the three months ended June 30, 2014 and 2013, respectively, an increase in gross loss of \$857,000. The increase in gross loss is attributable to lower pricing of our wafer products. For the three months ended June 30, 2014, wafer products were sold below cost resulting in a lower of cost or market adjustment which reduced inventory and increased cost of goods sold by \$354,000. For the three months ended June 30, 2014 and 2013, we were not operating at capacity due to lower demand, and recorded as an expense \$1.9 million and \$3.7 million, respectively, of costs associated with the under-utilization of equipment and staff.

*General and administrative expenses.* G&A expenses were \$2.2 million for each of the three months ended June 30, 2014 and 2013. There were no significant increases or decreases in spending for the comparative three months.

*Sales and marketing expenses.* Sales and marketing expenses were \$331,000 and \$414,000 for the three months ended June 30, 2014 and 2013, respectively, a decrease of \$83,000. The decrease in sales and marketing expenses is primarily attributable to decreased employee compensation costs of \$121,000 offset by an increase in marketing services and travel expenses of \$34,000.

*Research and development expenses.* R&D expenses were \$391,000 and \$495,000 for the three months ended June 30, 2014 and 2013, respectively, a decrease of \$104,000. The decrease was primarily attributable to lower employee compensation costs of \$46,000, a decrease in project expenses of \$28,000 and a decrease in travel expenses of \$39,000.

*Other income (expense).* Other income was \$195,000 for the three months ended June 30, 2014 and other expense was \$205,000 for the six months ended June 30, 2013, an increase in other income of \$400,000. The increase was due to an increase in realized gains on foreign currency translation of \$390,000 and an increase in interest income of \$10,000.

*Income tax expenses.* In accordance with ASC740 Accounting for Income Taxes (ASC740), we evaluate our deferred income tax assets quarterly to determine if valuation allowances are required or should be adjusted. ASC740 requires that companies assess whether valuation allowances should be established against their deferred tax assets based on consideration of all available evidence, both positive and negative, using a more likely than not standard. Due to the losses in the fourth quarter of 2013, we are in a cumulative loss position for the past three years, which is considered significant negative evidence by the accounting standards that is difficult to overcome on a more likely than not standard through objectively verifiable data. While our financial outlook remains positive, the accounting standards

attribute greater weight to objective negative evidence than to subjective positive evidence, such as our projections for future growth. Based on this evaluation, as of December 31, 2013, a valuation allowance has been recorded against the net U.S. deferred tax assets in order to measure only the portion of the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. For the three months ended June 30, 2014 we continue to be in a three year cumulative loss position, therefore until an appropriate level of profitability is attained, we expect to maintain a valuation allowance on net deferred tax assets related to future U.S. tax benefits and will no longer accrue tax benefits or tax expense on our Consolidated Statement of Operations. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made. Income tax benefit was \$4.3 million for the three months ended June 30, 2013, based on an estimated effective tax rate 42.1%. For the three months ended June 30, 2013 the difference between the Company's effective tax rate and the U.S. federal 35% statutory rate and state 6.2% (net of federal benefit) statutory rate was primarily related to profits recorded in the Malaysia operation for which the Company has a tax holiday and the accrual for an uncertain tax position.

**Table of Contents****RESULTS OF CONSOLIDATED OPERATIONS SIX MONTHS ENDED JUNE 30, 2014 AND 2013**

The following table sets forth our consolidated statements of operations for the periods indicated:

|                                   | <b>Six months ended<br/>June 30,<br/>2014      2013<br/>(in millions)</b> |          |
|-----------------------------------|---|----------|
| Revenue                           | \$ 28.7   | \$ 18.9  |
| Cost of goods sold                | 43.5  | 28.7     |
| Gross loss                        | (14.8)  | (9.8)    |
| Operating expenses:               |   |          |
| General and administrative        | \$ 4.6  | \$ 4.4   |
| Sales and marketing               | 0.8   | 0.8      |
| Research and development          | 1.0   | 0.9      |
| (Gain) loss on disposal of assets | (0.1)   | 0.4      |
| Total operating expenses          | 6.3   | 6.5      |
| Loss from operations              | (21.1)  | (16.3)   |
| Other income (expense)            | 0.2   | (0.3)    |
| Loss before income taxes          | (20.9)  | (16.6)   |
| Income tax benefit                |   | 7.3      |
| Net loss                          | \$ (20.9)   | \$ (9.3) |

The following table sets forth our consolidated statements of operations as a percentage of revenue for the periods indicated:

|                            | <b>Six months ended<br/>June 30,<br/>2014      2013<br/>(percentage of total)</b> |      |
|----------------------------|---|------|
| Revenue                    | 100%  | 100% |
| Cost of goods sold         | 152   | 152  |
| Gross loss                 | (52)  | (52) |
| Operating expenses:        |   |      |
| General and administrative | 16  | 23   |
| Sales and marketing        | 3   | 4    |

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|                                 |           |           |
|---------------------------------|-----------|-----------|
| Research and development        | 3         | 5         |
| Loss on disposal of assets      |           | 2         |
| <b>Total operating expenses</b> | <b>22</b> | <b>34</b> |
| Loss from operations            | (74)      | (86)      |
| Other income (expense)          | 1         | (2)       |
| Loss before income taxes        | (73)      | (88)      |
| Income tax benefit              |           | 39        |
| Net loss                        | (73)%     | (49)%     |

*Revenue.* Revenue was \$28.7 million and \$18.9 million for the six months ended June 30, 2014 and 2013, respectively, an increase of \$9.8 million. We experienced higher revenue from sales of our core products by \$14.0 million, of which \$8.8 million was attributable to an increase in volume and \$5.2 million was attributable to an increase in price. We experienced lower revenue from sales of our polished wafers by \$5.4 million which was the result of \$8.5 million in lower sales of polished wafers sold to the SoS market, partially offset by a \$3.1 million increase in polished wafers sold to the LED market. Of the \$5.4 reduction in revenue, a decrease of \$6.0 million was attributable to lower prices offset by an increase in volume of \$614,000. We also had increased revenue of \$1.1 million from optical products due to an increase in the sales of sapphire for sensor and instrumentation applications. Demand for our core products was stronger for the six months ended June 30, 2014 as compared to June 30, 2013 due to increased demand from the LED general lighting market and the adoption of sapphire in newer applications like the lens cover, dual flash and home button on certain smartphones. We anticipate prices to gradually increase throughout 2014 as excess sapphire capacity in the market continues to be absorbed by growing demand from the LED and other markets. However, we expect more volatility in two-inch sapphire demand and very limited demand in the third quarter. We continue to experience limited demand and weak pricing for LED polished wafers, but expect increased adoption of six-inch wafers in the LED market. In the second quarter 2014, we shipped our first production volume of four-inch polished wafers, however the pricing remains low. Demand for four-inch sapphire has been increasing as many LED chip manufacturers have



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been converting from the use of two-inch to four-inch sapphires substrates which results in greater efficiency. As demand for four-inch polished wafers increases, we anticipate pricing to improve. The manufacturer of the majority of SoS chips began producing new products on a substrate other than sapphire starting in 2014 and, therefore, the amount of sapphire wafers sold into that market was reduced significantly. We operate in an extremely volatile market, so the amount of price or volume change is difficult to predict.

*Gross loss.* Gross loss was \$14.8 million and \$9.8 million for the six months ended June 30, 2014 and 2013, respectively, an increase in gross loss of \$5.0 million. The increase in gross loss is attributable to lower pricing of our wafer products. For the six months ended June 30, 2014, wafer products were sold below cost resulting in a lower of cost or market adjustment which reduced inventory and increased cost of goods sold by \$1.5 million. For the six months ended June 30, 2014 and 2013, due to the lower demand, we were not operating at capacity and recorded costs of \$4.3 million and \$6.0 million, respectively, associated with the under-utilization of equipment and staff as an expense. For the six months ended June 30, 2013, prices for our small diameter core products were below cost and we recorded a lower of cost or market adjustment that reduced inventory and increased costs of goods sold by \$421,000.

*General and administrative expenses.* G&A expenses were \$4.6 million and \$4.4 million for the six months ended June 30, 2014 and 2013, respectively, an increase of \$180,000. The increase was primarily due to an increase in financing fees of \$213,000 and an increase in employee compensation costs of \$151,000 offset by a decrease in legal expenses of \$402,000.

*Sales and marketing expenses.* Sales and marketing expenses were \$799,000 and \$763,000 for the six months ended June 30, 2014 and 2013, respectively. There were no significant increases or decreases in spending for the comparative six months.

*Research and development expenses.* R&D expenses were \$967,000 and \$877,000 for the six months ended June 30, 2014 and 2013, respectively, an increase of \$90,000. The increase is primarily attributable to increased project expenses of \$108,000.

*Other income (expense).* Other income was \$232,000 for the six months ended June 30, 2014 and other expense was \$327,000 for the six months ended June 30, 2013, an increase in other income of \$559,000. The increase was primarily due to an increase in realized gains on foreign currency translation of \$541,000 and an increase in interest income of \$18,000.

*Income tax expenses.* In accordance with ASC740 Accounting for Income Taxes (ASC740), we evaluate our deferred income tax assets quarterly to determine if valuation allowances are required or should be adjusted. ASC740 requires that companies assess whether valuation allowances should be established against their deferred tax assets based on consideration of all available evidence, both positive and negative, using a more likely than not standard. Due to the losses in the fourth quarter of 2013, we are in a cumulative loss position for the past three years, which is considered significant negative evidence by the accounting standards that is difficult to overcome on a more likely than not standard through objectively verifiable data. While our financial outlook remains positive, the accounting standards attribute greater weight to objective negative evidence than to subjective positive evidence, such as our projections for future growth. Based on this evaluation, as of December 31, 2013, a valuation allowance has been recorded against the net U.S. deferred tax assets in order to measure only the portion of the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. For the six months ended June 30, 2014, we continue to be in a three year cumulative loss position, therefore until an appropriate level of profitability is attained, we expect to maintain a valuation allowance on net deferred tax assets related to future U.S. tax benefits and will no longer accrue tax benefits or tax expense on our Consolidated Statement of Operations. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with

a corresponding impact to the provision for income taxes in the period in which such determination is made. Income tax benefit was \$7.3 million for the six months ended June 30, 2013, based on an estimated effective tax rate 44.1%. For the six months ended June 30, 2013 the difference between the Company's effective tax rate and the U.S. federal 35% statutory rate and state 6.2% (net of federal benefit) statutory rate was primarily related to profits recorded in the Malaysia operation for which the Company has a tax holiday and the accrual for an uncertain tax position.

## **LIQUIDITY AND CAPITAL RESOURCES**

We have historically funded our operations using a combination of issuances of common stock and cash generated from our operations.

As of June 30, 2014, we had cash and short term investments totaling \$58.0 million, including cash of \$3.8 million held in deposits at major banks, \$20.9 million invested in money market funds and \$33.3 million of short-term investments including commercial paper, corporate notes and bonds, FDIC guaranteed certificates of deposit and common stock.

**Table of Contents****Cash flows from operating activities**

The following table represents the major components of our cash flows from operating activities for the six months ended June 30, 2014 and 2013:

|  | <b>Six months ended<br/>June 30,<br/>2014      2013<br/>(in millions)</b> |               |
|--|---|---------------|
| Net loss   | \$ (20.9)   | \$ (9.3)      |
| <b>Non-cash items:</b>                                     |   |               |
| Depreciation and amortization                              | 7.0   | 6.2           |
| Stock based compensation and other, net                    | 0.8   | 1.2           |
| Deferred taxes   |   | (7.3)         |
| <b>Total non-cash items:</b>                               | 7.8   | 0.1           |
| <b>Working capital:</b>                                    |   |               |
| Accounts receivable  | (5.0)   | 9.6           |
| Inventories  | 11.1  | 3.4           |
| Prepaid expenses and other assets                          | 0.5   | 4.5           |
| Accounts payable   | (0.1)   | (6.1)         |
| Other accruals   | (0.3)   | (1.8)         |
| <b>Total working capital items:</b>                        | 6.2   | 9.6           |
| <b>Net cash (used in) provided by operating activities</b> | <b>\$ (6.9)</b>   | <b>\$ 0.4</b> |

Cash used in operating activities was \$6.9 million for the six months ended June 30, 2014. During such period, we generated a net loss of \$20.9 million, incurred non-cash expenses of \$7.8 million, and net working capital change of \$6.2 million. The net working capital change was comprised of an increase in accounts receivable of \$5.0 million on increased revenue and timing of customers' payments, a decrease in inventory of \$11.1 million primarily attributed to a decrease in our sapphire boule and work-in-process inventory, and a decrease in accounts payable and accruals of \$468,000 due to timing of payments.

Cash provided by operating activities was \$369,000 for the six months ended June 30, 2013. During such period, we generated a net loss of \$9.3 million, incurred non-cash expenses of \$69,000, and net working capital change of \$9.6 million. The net working capital change was comprised of a decrease in accounts receivable of \$9.6 million on collections from several customers, a decrease in inventory of \$3.4 million primarily due to a decrease in raw materials and finished goods, a decrease in accounts payable of \$6.1 million due to timing of payments, and a decrease in prepaid expenses of which \$2.4 million is primarily due to a decrease in purchases of furnace construction and replacement parts and items used in the polishing of wafers.

**Cash flows from investing activities**

The following table represents the major components of our cash flows from investing activities for the six months ended June 30, 2014 and 2013:

|  | <b>Six months ended<br/>June 30,<br/>2014      2013<br/>(in millions)</b> |               |
|--|---|---------------|
| <b>Purchases of property and equipment:</b>                |   |               |
| Machinery & equipment for crystal growth                   | \$ (1.0)  | \$ (0.6)      |
| Polishing platform and PSS machinery and equipment         | (3.6)   |               |
| Increase capacity in other areas                           |   | (2.5)         |
| <b>Total purchases of property and equipment:</b>          | (4.6)   | (3.1)         |
| Purchases of investments                                   | (29.8)  | (2.0)         |
| Proceeds from sale of investments                          | 10.0  | 7.6           |
| <b>Net cash (used in) provided by investing activities</b> | <b>\$ (24.4)</b>  | <b>\$ 2.5</b> |

Net cash used in investing activities was \$24.4 million for the six months ended June 30, 2014. During the six months ended June 30, 2014, we used approximately \$4.6 million on the purchase of equipment, which was primarily focused on enhancing our polishing and patterned sapphire substrates platforms at our facility in Penang, Malaysia. We used proceeds from our common stock offerings of approximately \$29.8 million to purchase investment securities partially offset by the sales of investments of \$10.0 million which were used to fund operations and capital spending.

Net cash provided by investing activities was \$2.5 million for the six months ended June 30, 2013. During the six months ended June 30, 2013, we used approximately \$3.1 million on the purchase of equipment, which was primarily focused on enhancing our polishing platform at our facility in Penang, Malaysia. This was offset by the net proceeds from the sale of investments of \$5.6 million.

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We anticipate our full year 2014 spending on capital expenditures to be between \$10.0 million to \$15.0 million and will primarily be focused on investments in equipment to produce patterned sapphire substrates and to enhance our polishing platform.

### **Cash flows from financing activities**

Net cash provided by financing activities was \$35.2 million and \$33,000 for the six months ended June 30, 2014 and 2013, respectively. Net cash provided by financing activities for the six months ended June 30, 2014 represents \$35.0 million in proceeds from the issuance of common stock, net of issuance costs, and \$256,000 in net proceeds from the exercise of stock options. Net cash provided by financing activities for the six months ended June 30, 2013 represents \$27,000 in net proceeds from the exercise of stock options, and \$5,000 from a decrease in restricted cash.

### **Future liquidity requirements**

We believe that our existing cash, cash equivalents, investments and anticipated cash flows from operating activities will be sufficient to meet our anticipated cash needs for at least the next twelve months. Our cash needs include cash required to fund our operations and the capital needed to continue our new product development. If the assumptions underlying our business plan regarding future revenues and expenses change, or if unexpected opportunities or needs arise, we may seek to raise additional cash by selling equity or convertible debt securities. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we obtain additional debt financing or draw on our credit facility, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, and the terms of the debt securities issued could impose significant restrictions on our operations. If we are unable to obtain financing on terms favorable to us, we may be unable to successfully execute our business plan.

## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

We consider to be critical those accounting policies that require our most subjective or complex judgments, which often result from a need to make estimates about the effect of matters that are inherently uncertain, and that are among the most important of our accounting policies in the portrayal of our financial condition and results of operations. We believe the following to be our critical accounting policies, including the more significant estimates and assumptions used in preparation of our financial statements.

### **Foreign currency translation and transaction**

Rubicon Worldwide LLC's assets and liabilities are translated into U.S. dollars at exchange rates existing at the respective balance sheet dates and capital accounts at historical exchange rates. The results of operations are translated into U.S. dollars at the average exchange rates during the respective period. Translation adjustments resulting from fluctuations in exchange rates for Rubicon Worldwide LLC are recorded as a separate component of accumulated other comprehensive income (loss) within stockholders' equity.

We have determined that the functional currency of Rubicon Sapphire Technology (Malaysia) SDN BHD is the U.S. dollar. Rubicon Sapphire Technology (Malaysia) SDN BHD's assets and liabilities are translated into U.S. dollars using the remeasurement method. Non-monetary assets are translated at historical exchange rates and monetary assets are translated at exchange rates existing at the respective balance sheet dates. Translation adjustments for Rubicon Sapphire Technology (Malaysia) SDN BHD are included in determining net income (loss) for the period. The results of operations are translated into U.S. dollars at the average exchange rates during the respective period. We record

these gains and losses in other income (expense).

Foreign currency transaction gains and losses are generated from the effects of exchange rate changes on transactions denominated in a currency other than our functional currency, which is the U.S. dollar. Gains and losses on foreign currency transactions are generally required to be recognized in the determination of net income (loss) for the period. We record these gains and losses in other income (expense).

### **Revenue recognition**

We recognize revenue from sales of products and billings for costs and fees from government contracts. We recognize revenue from sales of products when:

*Persuasive evidence of an arrangement exists.* We require evidence of a purchase order with the customer specifying the terms and specifications of the product to be delivered, typically in the form of a signed quotation or purchase order from the customer.

*Title has passed and the product has been delivered.* Title passage and product delivery generally occurs when the product is delivered to a common carrier.

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*The price is fixed or determinable.* All terms are fixed in the signed quotation or purchase order received from the customer. The purchase orders do not contain rights of cancellation, return, exchanges or refunds.

*Collection of the resulting receivable is reasonably assured.* Our standard arrangement with customers includes payment terms. Customers are subject to a credit review process that evaluates each customer's financial position and its ability to pay. We determine collectability by considering the length of time the customer has been in business and our history of collections with that customer. If we determine that collection is not probable, no product is shipped and no revenue is recognized unless cash is received in advance.

## **Government Contracts**

We recognize research and development revenue in the period during which the related costs are incurred over the contractually defined period. In July 2012, we signed a contract with the Air Force Research Laboratory to produce large-area sapphire windows on a cost plus fixed fee basis. We record revenue on a gross basis as costs are incurred plus a portion of the fixed fee. For the three and six months ended June 30, 2014, \$272,000 and \$397,000, respectively, of revenue was recognized. For the three and six months ended June 30, 2013, \$110,000 and \$208,000 of revenue was recorded, respectively. The contract will continue for duration of three years and the total value of the contract is \$4.7 million of which \$3.1 million has been recorded through June 30, 2014.

We do not provide maintenance or other services and do not have sales that involve multiple elements or deliverables.

## **Inventory valuation**

We value our inventory at the lower of cost or market. Market is determined based on net realizable value. Raw materials cost is determined using the first-in, first-out method, and work-in-process and finished goods costs are determined on a weighted-average cost basis which includes materials, labor and overhead. We establish inventory reserves when conditions exist that suggest inventory may be in excess of anticipated demand or is obsolete based on customer required specifications. We evaluate the ability to realize the value of our inventory based on a combination of factors, including forecasted sales, estimated current and future market value and changes in customers' product specifications. For the three and six months ended June 30, 2014, we determined that we had inventory that was excess or obsolete and recorded an adjustment which reduced inventory and increased cost of goods by \$363,000. For the three and six months ended June 30, 2014, we accepted sales orders for four-inch and six-inch polished wafers at prices lower than our cost in order to increase utilization of our machinery and equipment and to gain market share. Based on these sales prices, we recorded for the three and six months ended June 30, 2014 an adjustment which increased costs of goods sold and reduced inventory by \$354,000 and \$1.5 million, respectively. We expect pricing on these products to slowly increase throughout 2014. Our method of estimating excess and obsolete inventory has remained consistent for all periods presented. However, if our recognition of excess or obsolete inventory is, or if our estimates of our inventory's potential utility become, less favorable than currently expected, additional inventory reserves may be required. We determine our normal operating capacity and record as an expense costs attributable to lower utilization of equipment and staff. For the three and six months ended June 30, 2014, we determined that we were not operating at capacity and recorded costs associated with lower utilization of equipment and staff of \$1.9 million and \$4.3 million, respectively. Although we expect demand to improve throughout the remainder of 2014, it is likely that we will incur additional costs due to lower utilization of equipment and staff.

## **Investments**

We invest available cash primarily in investment grade commercial paper, FDIC guaranteed certificates of deposit, common stock, corporate notes and government securities. Investments classified as available-for-sale securities are

carried at fair market value with unrealized gains and losses recorded in accumulated other comprehensive income (loss). Investments in trading securities are reported at fair value, with both realized and unrealized gains and losses recorded in other income (expense) in the Consolidated Statement of Operations. Investments in which we have the ability and intent, if necessary, to liquidate in order to support our current operations are classified as short-term.

We review our available-for-sale securities investments at the end of each quarter for other-than-temporary declines in fair value based on the specific identification method. We consider various factors in determining whether an impairment is other-than-temporary, including the severity and duration of the impairment, changes in underlying credit ratings, forecasted recovery, our ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value and the probability that the scheduled cash payments will continue to be made. When we conclude that an other-than-temporary impairment has resulted, the difference between the fair value and carrying value is written off and recorded as a charge on the Consolidated Statement of Operations. As of June 30, 2014, no impairment was recorded.

#### **Allowance for doubtful accounts**

We estimate the allowance for doubtful accounts based on an assessment of the collectability of specific customer accounts. The determination of risk for collection is assessed on a customer-by-customer basis considering our historical experience and future orders with the customer, changes



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in payment patterns, and recent information we have about the current status of our accounts receivable balances. If we determine that a specific customer is a risk for collection, we provide a specific allowance for credit losses to reduce the net recognized receivable to the amount we reasonably believe will be collected. We believe that, based on the customers to whom we sell and the nature of our agreements with them, our estimates are reasonable. Our method of estimating collectability has remained consistent for all periods presented and with past collections experience.

### **Long-Lived assets**

We review property and equipment for impairment whenever events or circumstances indicate that carrying amounts may not be recoverable. If such events or changes in circumstances occur, we will recognize an impairment loss if the undiscounted future cash flows expected to be generated by the assets are less than the carrying value of the related asset. The impairment loss would adjust the asset to its fair value.

In evaluating the recoverability of long-lived assets, we must make assumptions regarding estimated future cash flows and other factors to determine the fair value of such assets. If our fair value estimates or related assumptions change in the future, we may be required to record impairment charges related to property and equipment. Asset recoverability is first measured by comparing the assets' carrying amount to their expected future undiscounted net cash flows to determine if the assets are impaired. If such assets are considered to be impaired, the impairment recognized is measured based on the amount by which the carrying amount of the assets exceeds the fair value.

In response to our current period operating losses combined with our history of continuing operating losses, we evaluated the recoverability of certain property and equipment. Based upon our assessment using our most recent projections, no impairment to these assets was indicated as of June 30, 2014, as the recoverable amount of undiscounted cash flows exceeded the carrying amount of these assets. To the extent these projections are not achieved, there may be a negative effect on the valuation and carrying value of these assets.

### **Stock-based compensation**

We expense stock options based upon the fair market value on the date of grant. We use the Black-Scholes option pricing model to determine the fair value of stock options. The determination of the fair value of stock-based payment awards on the date of grant using an option-pricing model will be affected by assumptions regarding a number of complex and subjective variables. These variables include our expected stock volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rates, forfeitures and expected dividends.

The expected term represents the weighted-average period that our stock options are expected to be outstanding and is based upon the vesting term of our options, a review of a peer group of companies, and expected exercise behavior. We estimate the volatility of our common stock based on a three year historical stock price. We base the risk-free interest rate that we use in the option pricing model on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term on the options. We do not anticipate paying any cash dividends in the foreseeable future and, therefore, use an expected dividend yield of zero in the option pricing model. We are required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The current forfeiture rate of 25.56% was based on our past history of forfeitures.

We allocate stock based compensation costs using a straight-line method which amortizes the fair value of each option on a straight-line basis over the service period. Based on the variables affecting the valuation of our common stock and the method used for allocating compensation costs, we recognized \$363,000 and \$811,000 in stock compensation expense during the three and six months ended June 30, 2014, respectively.

All option grants made during the three and six months ended June 30, 2014 and 2013 were granted at an exercise price per share equal to the closing market price of our common stock on the last market trading day prior to the date of grant. Therefore, there is no intrinsic value because the exercise price per share of each option was equal to the fair value of the common stock on the date of grant.

Based on the fair market value of the common stock at June 30, 2014, there is no aggregate intrinsic value of all stock options outstanding and exercisable.

### **Income tax valuation allowance**

Evaluating the need for and amount of a valuation allowance for deferred tax assets often requires significant judgment and extensive analysis of all the positive and negative evidence available to determine whether all or some portion of the deferred tax assets will not be realized. A valuation allowance must be established for deferred tax assets when it is more likely than not (a probability level of more than 50 percent) that they will not be realized. In general, realization refers to the incremental benefit achieved through the reduction in future taxes payable or an increase in future taxes refundable from the deferred tax assets, assuming that the underlying deductible differences and carryforwards are the last items to enter into the determination of future taxable income. In determining our valuation allowance, we consider the source of taxable income including taxable

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income in prior carryback years, future reversals of existing temporary differences, the required use of tax planning strategies, and future taxable income exclusive of reversing temporary differences and carryforwards. Due to the losses in the fourth quarter of 2013, we are in a cumulative loss position for the past three years, which is considered significant negative evidence by the accounting standards that is difficult to overcome on a more likely than not standard through objectively verifiable data. While we believe our financial outlook remains positive, under the accounting standards objective verifiable evidence is given greater weight than subjective evidence, such as our projections for future growth. Based on an evaluation in accordance with the accounting standards, as of December 31, 2013, a valuation allowance has been recorded against the net U.S. deferred tax assets in order to measure only the portion of the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. At June 30, 2014 we continue to be in a three year cumulative loss position, therefore until an appropriate level of profitability is attained, we expect to maintain a full valuation allowance on our U.S. net deferred tax assets.

**RECENT ACCOUNTING PRONOUNCEMENT**

In July 2013, the FASB issued Accounting Standards Update No. 2013-11 ( ASU 2013-11 ), *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*. ASU No. 2013-11 clarifies that an unrecognized tax benefit, or a portion of an unrecognized tax benefit, should be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward, except as follows. To the extent a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date under the tax law of the applicable jurisdiction to settle any additional income taxes that would result from the disallowance of a tax position or the tax law of the applicable jurisdiction does not require the entity to use, and the entity does not intend to use, the deferred tax asset for such purpose, the unrecognized tax benefit should be presented in the financial statements as a liability and should not be combined with deferred tax assets. The assessment of whether a deferred tax asset is available is based on the unrecognized tax benefit and deferred tax asset that exist at the reporting date and should be made presuming disallowance of the tax position at the reporting date. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The adoption of ASU 2013-11 has not had a material impact on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09 ( ASU 2014-09 ), *Revenue from Contracts with Customers*, which supersedes most of the current revenue recognition requirements. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. The guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. Other major provisions include capitalization of certain contract costs, consideration of time value of money in the transaction price, and allowing estimates of variable consideration to be recognized before contingencies are resolved in certain circumstances. The guidance also requires enhanced disclosures regarding the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. The guidance is effective for the interim and annual periods beginning on or after December 15, 2016 (early adoption is not permitted). The guidance permits the use of either a retrospective or cumulative effect transition method. The adoption of ASU 2014-09 is not expected to have a material impact on our consolidated financial statements.

In June 2014, the FASB issued Accounting Standards Update No. 2014-12 ( ASU 2014-12 ), *Compensation - Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period* related to stock compensation. The new standard requires that a performance target that affects vesting, and that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating

the grant date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the periods for which the requisite service has already been rendered. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015 and can be applied either prospectively or retrospectively to all awards outstanding as of the beginning of the earliest annual period presented as an adjustment to opening retained earnings. Early adoption is permitted. We are evaluating the impact, if any, of adopting ASU 2014-12 on our financial statements.

#### **OFF-BALANCE SHEET ARRANGEMENTS**

As of June 30, 2014, there have been no material changes in the off-balance sheet arrangements disclosed in the Management's Discussion and Analysis section of our Annual Report on Form 10-K for the year ended December 31, 2013.

#### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

For the six months ended June 30, 2014, there were no material changes in the information regarding market risk contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013.

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**ITEM 4. CONTROLS AND PROCEDURES**

**Management's evaluation of disclosure controls and procedures**

Based on evaluations at June 30, 2014, our chief executive officer and chief financial officer (together, our certifying officers), with the participation of the management team, have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act)) are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC, and that material information relating to the Company is accumulated and communicated to management, including our certifying officers, as appropriate to allow timely decisions regarding required disclosures.

**Changes in internal control over financial reporting**

Our certifying officers have concluded that there were no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the three months ended June 30, 2014 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**PART II**

**ITEM 1. LEGAL PROCEEDINGS**

From time to time we may be named in claims arising in the ordinary course of business. Currently, there are no legal proceedings or claims pending against us or involving us that, in the opinion of our management, could reasonably be expected to have a material adverse effect on our business or financial condition.

**ITEM 1A. RISK FACTORS**

Our business is influenced by many factors that are difficult to predict, involve uncertainties that may materially affect actual results and are often beyond our control. We have identified a number of these risk factors in our Annual Report on Form 10-K for the year ended December 31, 2013, which factors should be taken into consideration when reviewing the information contained in this report. There have been no material changes with regard to the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2013.

**ITEM 6. EXHIBITS**

The exhibits filed or incorporated by reference as a part of this report are listed in the Index to Exhibits which appears following the signature page to this Quarterly Report on Form 10-Q and is incorporated by reference.

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on August 8, 2014.

Rubicon Technology, Inc.

Date: August 8, 2014

By: /s/ Raja M. Parvez  
Raja M. Parvez  
President and Chief Executive Officer

Date: August 8, 2014

By: /s/ William F. Weissman  
William F. Weissman  
Chief Financial Officer

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

**Table of Contents****EXHIBIT INDEX**

The Exhibits listed below are filed or incorporated by reference as part of this Quarterly Report on Form 10-Q.

| <b>Exhibit No.</b> | <b>Description</b>   | <b>Incorporation by Reference</b>   |
|--------------------|--|---|
| 3.1                | Eighth Amended and Restated Certificate of Incorporation of Rubicon Technology, Inc.   | Filed as Exhibit 3.1 to Amendment No. 2, to the registrant's Registration Statement on Form S-1 (File No. 333-145880) filed on November 1, 2007 |
| 3.2                | Amendment No. 1 to Eight Amended and Restated Certificate of Incorporation   | Filed as Appendix A to the registrant's Definitive Proxy statement on Schedule 14A, filed on April 29, 2011                                     |
| 3.3                | Amended and Restated By laws of Rubicon Technology, Inc.   | Filed as Exhibit 3.3 to Amendment No. 2, to the registrant's Registration Statement on Form S-1 (File No. 333-145880) filed on November 1, 2007 |
| 31.1               | Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002          |   |
| 31.2               | Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002          |   |
| 32.1               | Certifications of Chief Executive Officer and 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 Document   |   |
| 101.SCH**          | XBRL Taxonomy Extension Schema Document  |   |
| 101.CAL**          | XBRL Taxonomy Extension Calculation Linkbase Document  |   |
| 101.LAB**          | XBRL Taxonomy Extension Label Linkbase Document  |   |
| 101.PRE**          | XBRL Taxonomy Extension Presentation Document  |   |
| 101.DEF**          | XBRL Taxonomy Extension Definition Linkbase Document   |   |

\*\* Submitted electronically with this Report on Form 10-Q

