

ADVANCED PHOTONIX INC  
Form 10-Q  
November 12, 2013

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the quarterly period ended September 27, 2013  
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
Commission File Number 1-11056

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

Delaware 33-0325826  
(State or other jurisdiction of incorporation or (I.R.S. Employer Identification No.)  
organization)

2925 Boardwalk, Ann Arbor, Michigan 48104  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code  
(734) 864-5600

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 Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES  NO

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

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



Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES  NO

As of November 4, 2013, there were 31,244,740 shares of Class A Common Stock, \$.001 par value, outstanding.

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Advanced Photonix, Inc.  
 Form 10-Q  
 For the Quarter Ended September 27, 2013

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## PART I -- FINANCIAL INFORMATION

## Item 1. Condensed Consolidated Financial Statements

Advanced Photonix, Inc.  
Condensed Consolidated Balance Sheets

	September 27, 2013 (Unaudited)	March 31, 2013
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 371,000	\$ 619,000
Receivables, net	5,662,000	4,988,000
Inventories	4,617,000	3,905,000
Prepaid expenses and other current assets	815,000	795,000
Total current assets	11,465,000	10,307,000
Equipment and leasehold improvements, net	3,111,000	3,415,000
Goodwill	4,579,000	4,579,000
Intangibles and patents, net	3,304,000	3,686,000
Other assets	178,000	229,000
Total Assets	\$ 22,637,000	\$ 22,216,000
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 2,233,000	\$ 1,829,000
Accrued compensation	1,302,000	729,000
Accrued subcontracting costs	450,000	427,000
Other accrued expenses	1,043,000	871,000
Current portion of long-term debt, PFG	714,000	714,000
Current portion of long-term debt – MEDC/MSF	564,000	553,000
Current portion of capital lease	8,000	--
Current portion of long-term debt - bank line of credit	1,251,000	--
Current portion of long-term debt - bank term loan	333,000	333,000
Total current liabilities	7,898,000	5,456,000
Long-term debt, less current portion – PFG, net of discount	1,061,000	1,322,000
Long-term debt, less current portion – MEDC/MSF	90,000	377,000
Long-term debt, capital lease	39,000	--
Long-term debt, less current portion – bank term loan	167,000	334,000
Warrant liability	381,000	292,000
Total liabilities	9,636,000	7,781,000
Commitments and contingencies		
Shareholders' equity:		
Class A Common Stock, \$.001 par value, 100,000,000 authorized;		
September 27, 2013 – 31,244,740 shares issued and outstanding,		
March 31, 2013 – 31,158,347 shares issued and outstanding	31,000	31,000
Additional paid-in capital	58,685,000	58,616,000
Accumulated deficit	(45,715,000 )	(44,212,000 )
Total shareholders' equity	13,001,000	14,435,000

Total Liabilities and Shareholders' Equity	\$ 22,637,000	\$ 22,216,000
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See notes to condensed consolidated financial statements.

Advanced Photonix, Inc.  
Condensed Consolidated Statements of Operations  
(Unaudited)

	Three Months Ended		Six Months Ended	
	September 27, 2013	September 28, 2012	September 27, 2013	September 28, 2012
Sales, net	\$ 7,536,000	\$ 5,586,000	\$ 14,614,000	\$ 11,802,000
Cost of products sold	4,747,000	3,612,000	8,898,000	7,584,000
Gross profit	2,789,000	1,974,000	5,716,000	4,218,000
Operating expenses:				
Research, development and engineering	1,234,000	1,342,000	2,726,000	2,713,000
Sales and marketing	640,000	496,000	1,227,000	1,001,000
General and administrative	1,202,000	1,119,000	2,326,000	2,172,000
Amortization expense	259,000	291,000	509,000	583,000
Total operating expenses	3,335,000	3,248,000	6,788,000	6,469,000
Loss from operations	(546,000 )	(1,274,000 )	(1,072,000 )	(2,251,000 )
Other income (expense):				
Interest expense	(165,000 )	(30,000 )	(325,000 )	(63,000 )
Change in fair value of warrant liability	107,000	(4,000 )	(89,000 )	13,000
Other income (loss)	26,000	21,000	(17,000 )	21,000
Total other expense	(32,000 )	(13,000 )	(431,000 )	(29,000 )
Loss before benefit for income taxes	(578,000 )	(1,287,000 )	(1,503,000 )	(2,280,000 )
Benefit for income taxes	--	--	--	--
Net loss	\$ (578,000 )	\$ (1,287,000 )	\$ (1,503,000 )	\$ (2,280,000 )
Basic & diluted loss per share	\$ (0.02 )	\$ (0.04 )	\$ (0.05 )	\$ (0.07 )
Weighted average common shares outstanding				
Basic & diluted	31,229,000	31,161,000	31,213,000	31,161,000

See notes to condensed consolidated financial statements.

Advanced Photonix, Inc.  
Condensed Consolidated Statements of Cash Flows  
(Unaudited)

	Six Months Ended	
	September 27, 2013	September 28, 2012
Cash flows from operating activities:		
Net loss	\$ (1,503,000)	\$ (2,280,000)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities		
Depreciation	463,000	395,000
Amortization of intangible assets	509,000	583,000
Amortization of debt discount	96,000	--
Stock based compensation expense	70,000	78,000
Change in fair value of warrant liability	89,000	(13,000 )
Changes in operating assets and liabilities:		
Accounts receivable – net	(674,000 )	(329,000 )
Inventories	(712,000 )	(112,000 )
Prepaid expenses and other assets	15,000	(237,000 )
Accounts payable and accrued expenses	1,172,000	686,000
Net cash used in operating activities	(475,000 )	(1,229,000)
Cash flows from investing activities:		
Capital expenditures	(93,000 )	(198,000 )
Patent expenditures	(127,000 )	(69,000 )
Net cash used in investing activities	(220,000 )	(267,000 )
Cash flows from financing activities:		
Payments on bank term loan	(167,000 )	(167,000 )
Net proceeds on bank line of credit	1,251,000	300,000
Payments on MEDC/MSF term loans	(276,000 )	(262,000 )
Payments on PFG term loan	(357,000 )	--
Payments on capital lease	(3,000 )	--
Taxes paid on net share settlement	(2,000 )	--
Proceeds from exercise of stock options	1,000	--
Net cash (used in) provided by financing activities	447,000	(129,000 )
Effect of exchange rate changes on cash and cash equivalents	--	--
Net decrease in cash and cash equivalents	(248,000 )	(1,625,000)
Cash and cash equivalents at beginning of period	619,000	3,249,000
Cash and cash equivalents at end of period	\$ 371,000	\$ 1,624,000
Supplemental disclosure of cash flow information:		
	September 27, 2013	September 28, 2012
Cash paid for interest	\$ 193,000	\$ 58,000
Supplemental disclosure of non-cash investing and financing activities:		
Acquisition of equipment through-capital lease	\$ 50,000	\$ --

See notes to condensed consolidated financial statements.





Advanced Photonix, Inc.  
Notes to Condensed Consolidated Financial Statements  
September 27, 2013

Note 1. Basis of Presentation

Business Description

General – Advanced Photonix, Inc. ® (the Company, we, us, our, or API), was incorporated under the laws of the State of Delaware in June 1988. API is a leading test and measurement company that packages optoelectronic semiconductors into high-speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz (THz products) instrumentation, serving a variety of global markets. The Company supports the customers from the initial concept and design phase of the product, through testing to full-scale production. The Company has three manufacturing facilities located in Camarillo, California, Ann Arbor, Michigan and Montreal, Canada.

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and the Company's wholly owned subsidiaries (Silicon Sensors Inc. Picometrix®, LLC, and Advanced Photonix Canada, Inc.). The unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (SEC). All material inter-company accounts and transactions have been eliminated in consolidation. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, all adjustments, consisting of normal and recurring adjustments, necessary for a fair presentation of the financial position and the results of operations for the periods presented have been included. Operating results for the six-month period ended September 27, 2013 are not necessarily indicative of the results that may be expected for the balance of the fiscal year ending March 31, 2013.

These unaudited condensed consolidated financial statements should be read in conjunction with Management's Discussion and Analysis and the audited financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended March 31, 2013, filed with the SEC on July 1, 2013.

Note 2. Stock Based Compensation

The Company has three stock equity plans: The 1997 Employee Stock Option Plan, the 2000 Stock Option Plan and the 2007 Equity Incentive Plan. As of September 27, 2013, no additional awards may be issued under either the 1997 Employee Stock Option Plan or the 2000 Stock Option Plan. There are 2,500,000 shares authorized for issuance under the 2007 Equity Incentive Plan, with 181,095 shares remaining available for future grant.

Options and restricted stock awards may be granted to employees, officers, directors and consultants. Options typically vest over a period of one to four years and are exercisable up to ten years from the date of issuance. The option exercise price equals the stock's market price on the date of grant. Restricted stock awards typically vest over a period of six months to four years, and the shares subject to such awards are generally not transferrable until the awards vest.

The following table summarizes information regarding options outstanding and options exercisable at each of the quarterly periods through the six months ended September 28, 2012 and September 27, 2013, respectively, and the changes during the periods then ended:

	Number of Options Outstanding (000's)	Weighted Average Exercise Price per Share	Number of Shares Exercisable (000's)	Weighted Average Exercise Price per Share
Balance as of March 31, 2012	2,267	\$ 1.75	1,994	\$ 1.88
Granted	125	\$ 0.63		
Exercised	(5 )	\$ 0.44		
Expired or forfeited	(5 )	\$ 0.44		
Balance as of June 29, 2012	2,382	\$ 1.69	2,023	\$ 1.86
Granted	67	\$ 0.62		
Exercised	--	\$ 0.00		
Expired or forfeited	(11 )	\$ 2.26		
Balance as of September 28, 2012	2,438	\$ 1.66	2,058	\$ 1.83

	Number of Options Outstanding (000's)	Weighted Average Exercise Price per Share	Number of Shares Exercisable (000's)	Weighted Average Exercise Price per Share
Balance as of March 31, 2013	2,392	\$ 1.66	2,142	\$ 1.76
Granted	24	\$ 0.48		
Exercised	--	\$ --		
Expired or forfeited	(114 )	\$ 1.03		
Balance as of June 28, 2013	2,302	\$ 1.68	2,099	\$ 1.76
Granted	--	\$ --		
Exercised	(4 )	\$ 0.44		
Expired or forfeited	(19 )	\$ 1.80		
Balance as of September 27, 2013	2,279	\$ 1.68	2,117	\$ 1.75
Vested & expected to Vest, September 27, 2013	2,235	\$ 1.70		

Information regarding stock options outstanding as of September 27, 2013 is as follows:

Price Range	Shares (in 000s)	Options Outstanding Weighted Average Exercise Price	Weighted Average Remaining Life
\$0.44 - \$1.25	549	\$ 0.70	7.79
\$1.26 - \$2.50	1,440	\$ 1.82	3.60
\$2.51 - \$5.34	290	\$ 2.84	1.70

Price Range	Shares (in 000s)	Options Exercisable Weighted Average Exercise Price	Weighted Average Remaining Life
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	000s)	Average Exercise Price	Remaining Life
\$0.44 - \$1.25	387	\$ 0.66	7.57
\$1.26 - \$2.50	1,440	\$ 1.82	3.60
\$2.51 - \$5.34	290	\$ 2.84	1.70

The intrinsic value of options exercised during each of the three and six month periods ended September 27, 2013 was \$600. The intrinsic value of options exercised during the three and six month periods ended September 28, 2012 was zero and \$1,100, respectively.

During the second quarter of fiscal 2013, no restricted shares were issued. There were 50,000 restricted shares issued during the second quarter of fiscal 2014. The restricted share transactions are summarized below:

	Shares (000's)	Weighted Average Grant Date Fair Value Per Share
Unvested, March 31, 2012	246	\$ 0.84
Granted	--	\$ --
Vested	--	\$ --
Expired or forfeited	--	\$ --
Unvested, June 29, 2012	246	\$ 0.84
Granted	--	\$ --
Vested	(76 )	\$ 0.82
Expired or forfeited	--	\$ --
Unvested, September 28, 2012	170	\$ 0.84

	Shares (000's)	Weighted Average Grant Date Fair Value Per Share
Unvested, March 31, 2013	128	\$ 0.87
Granted	40	\$ 0.48
Vested	--	\$ --
Expired or forfeited	(1 )	\$ 0.76
Unvested, June 28, 2013	167	\$ 0.78
Granted	50	\$ 0.66
Vested	(26 )	\$ 0.89
Expired or forfeited	(7 )	\$ 0.95
Unvested, September 27, 2013	184	\$ 0.72

The Company estimates the fair value of stock-based awards utilizing the Black-Scholes pricing model for stock options and using the intrinsic value for restricted stock. The fair value of the awards is amortized as compensation expense on a straight-line basis over the requisite service period of the award, which is generally the vesting period. The Black-Scholes fair value calculations involve significant judgments, assumptions, estimates and complexities that impact the amount of compensation expense to be recorded in current and future periods. The factors include:

1. The time period that option awards are expected to remain outstanding has been determined based on the average of the original award period and the remaining vesting period. The expected term assumption for awards issued during the six month periods ended September 27, 2013 and September 28, 2012 was 6.3 years.
2. The future volatility of the Company's stock has been estimated based on the weekly stock price during the expected term to the date of the latest stock option grant. The expected volatility assumption for awards issued during the six month periods ended September 27, 2013 and September 28, 2012 averaged 68% and 66%, respectively.
3. A dividend yield of zero has been assumed for awards issued during six month periods ended September 27, 2013 and September 28, 2012, based on the Company's actual past experience and the fact that Company does not anticipate paying a dividend on its shares in the near future.
4. The Company has based its risk-free interest rate assumption for awards issued during the six month periods ended September 27, 2013 and September 28, 2012 on the implied yield available on U.S. Treasury issues with an equivalent expected term, which averaged 1.1% and 0.6% during each of the respective periods.
- 5.

The forfeiture rate, for awards issued during the six month periods ended September 27, 2013 and September 28, 2012, was 22% and 16%, respectively, and was based on the Company's actual historical forfeiture history.

The Company's stock-based compensation expense is classified in the table below:

	Three months ended		Six months ended	
	September 27, 2013	September 28, 2012	September 27, 2013	September 28, 2012
Cost of Products Sold	\$ 2,000	\$ 4,000	\$ 4,000	\$ 7,000
Research, development & engineering expense	7,000	16,000	12,000	23,000
General and Administrative expense	24,000	24,000	39,000	41,000
Sales and Marketing expense	8,000	5,000	15,000	7,000
Total Stock Based Compensation	\$ 41,000	\$ 49,000	\$ 70,000	\$ 78,000

At September 27, 2013, the total stock-based compensation expense related to unvested stock options and restricted shares granted to employees and independent directors under the Company's stock option plans but not yet recognized was \$156,000. This expense will be amortized on a straight-line basis over a weighted-average period of approximately 1.4 years and will be adjusted for subsequent changes in estimated forfeitures.

### Note 3. Credit Risk

**Pervasiveness of Estimates and Risk** - The preparation of condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash equivalents and trade accounts receivable.

Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. API has never experienced any losses related to these balances. At September 27, 2013, there was no cash held in excess of federally insured limits.

Accounts receivable are unsecured and the Company is at risk to the extent such amounts become uncollectible. The Company performs periodic credit evaluations of its customers' financial condition and generally does not require collateral. Any unanticipated change in the customers' credit worthiness or other matters affecting the collectability of amounts due from such customers could have a material effect on the results of operations in the period in which such changes or events occur. As of September 27, 2013 two customers comprised 28% of accounts receivable. As of March 31, 2013, one customer individually comprised 12% of accounts receivable. The allowance for doubtful account balance was \$37,000 on September 27, 2013 and \$56,000 on March 31, 2013.

## Note 4. Detail of Certain Asset Accounts

Cash and Cash Equivalents - The Company considers all highly liquid investments, with an original maturity of three months or less when purchased, to be cash equivalents.

Inventories - Inventories, which include material, labor and manufacturing overhead, are stated at the lower of cost (on a first in, first out method) or market. Inventories consist of the following at September 27, 2013 and March 31, 2013:

	September 27, 2013		March 31, 2013
Raw material	\$ 2,757,000	\$	2,600,000
Work-in-process	1,098,000		782,000
Finished products	762,000		523,000
Inventories, net	\$ 4,617,000	\$	3,905,000

Slow moving and obsolete inventories are reviewed throughout the year to assess whether a cost adjustment is required. Our review of slow moving and obsolete inventory begins with a listing of all inventory items which have not moved regularly within the past 12 months. In addition, any residual inventory, which is customer specific and remaining on hand at the time of contract completion, is included in the list. The complete list of slow moving and obsolete inventory is then reviewed by the production, engineering and/or purchasing departments to identify items that can be utilized in the near future. These items are then excluded from the analysis and the remaining amount of slow-moving and obsolete inventory is then further assessed and a write down is recorded when warranted. Additionally, non-cancelable open purchase orders for parts we are obligated to purchase where demand has been reduced may also be reserved. Impairments for open purchase orders where the market price is lower than the purchase order price are also recorded. The impairments established for excess, slow moving, and obsolete inventory create a new cost basis for those items. The cost basis of these parts is not subsequently increased if the circumstances which led to the impairment change in the future. If a product that had previously been impaired is subsequently sold, the amount of reduced cost basis is reflected as cost of goods sold.

Intangible Assets - Intangible assets that have definite lives consist of the following (dollars in thousands):

	Weighted Average Lives in Years	September 27, 2013			
		Amortization Method	Carrying	Accumulated	Intangibles
Customer list	15	Straight Line	\$ 190	\$ 106	\$ 84
Trademarks	15	Cash Flow	2,270	1,186	1,084
Technology	10	Cash Flow	10,950	10,310	640
Distribution Rights	7	Straight Line	148	12	136
Patents pending			672	--	672
Patents	10	Straight Line	1,073	385	688
Total Intangibles			\$ 15,303	\$ 11,999	\$ 3,304
	Weighted Average Lives in Years	March 31, 2013			
		Amortization Method	Carrying	Accumulated	Intangibles
Customer list	15	Straight Line	\$ 190	\$ 100	\$ 90



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Trademarks	15	Cash Flow	2,270	1,105	1,165
Technology	10	Cash Flow	10,950	9,946	1,004
Distribution Rights	7	Straight Line	148	2	146
Patents pending			672	--	672
Patents	10	Straight Line	946	337	609
Total Intangibles			\$ 15,176	\$ 11,490	\$ 3,686

Amortization expense for the three-month periods ended September 27, 2013 and September 28, 2012 was \$259,000 and \$291,000, respectively. The current patents held by the Company have remaining useful lives ranging from 2 years to 20 years. Amortization expense for the six-month periods ended September 27, 2013 and September 28, 2012 was \$509,000 and \$583,000, respectively.

The cash flow method of amortization is based upon management's estimate of how the intangible asset contributes to our cash flows and best represents the pattern of how the economic benefits of the intangible asset will be consumed or used up. Such amortization is initially derived from the estimated undiscounted cash flows that were used in determining the original fair value of the intangible asset at the acquisition date and is monitored for significant changes in subsequent periods.

Assuming no impairment to the intangible value, future amortization expense for intangible assets and patents, excluding patents pending, are as follows by fiscal year (in thousands):

#### Intangible Assets and Patents

Remainder of		
2014	\$	518
2015		445
2016		462
2017		315
2018		317
2019 & after		575
Total	\$	2,632

Patent pending costs of \$672,000 are not included in the future amortization chart above. These costs will be amortized beginning the month the patents are granted.

#### Note 5. Debt

Total outstanding debt of the Company as of September 27, 2013 and March 31, 2013 consisted of the following (in thousands):

	September 27, 2013		March 31, 2013
Bank term loan	\$ 500	\$	667
Bank line of credit	1,251		--
MEDC/MSF loans	654		930
Partners for Growth (PFG) loan, net of debt discount	1,775		2,036
Capital leases	47		--
Total	\$ 4,227	\$	3,633

#### Bank Debt

On January 31, 2012, the Company entered into a loan and security agreement (and such other documents which constitute the SVB Loan Agreement) with Silicon Valley Bank (SVB) and terminated its prior loan agreement with PrivateBank and Trust Company (PrivateBank) by paying off the outstanding balances under the PrivateBank loan agreement. Subsequent to the initial SVB Loan Agreement, there have been three amendments that have modified the covenants, allowed for the acquisition of substantially all of the operating assets of Silonex Inc. (Silonex) and allowed for the grant to Partners for Growth III, L.P. (PFG) of a subordinated security interest in the Company's collateral. The

terms of the SVB Loan Agreement, as amended, provide for a \$5.0 million line of credit with a \$3.0 million Export-Import (EX-IM) sublimit at an interest rate that ranges from prime plus 50 basis points on up to prime plus 400 basis points depending on a liquidity ratio and adjusted three month rolling EBITDA as defined in the SVB Loan Agreement. The SVB Loan Agreement, as amended, contains a covenant for a minimum rolling three month adjusted EBITDA, measured monthly, and a minimum liquidity ratio of 2.25 to 1.00. The current adjusted EBITDA covenant allows for a negative adjusted EBITDA of \$750,000 for each month during the period from January to June 2013, negative adjusted EBITDA of \$300,000 for each month during the period July through October 2013, adjusted EBITDA of \$1 for each month during the period November 2013 through February 2014, and adjusted EBITDA of \$100,000 thereafter, subject to reset based on mutual agreement once a fiscal year 2015 budget is submitted to the lenders. The amount that can be drawn on the line of credit is subject to a formula based on our outstanding receivables and inventory. In addition, the SVB Loan Agreement, as amended, provided for a \$1.0 million term loan with principal payable over three years in equal monthly installments and interest at a rate ranging from prime plus 100 basis points to prime plus 450 basis points dependent on the Company's liquidity ratio and adjusted three month rolling EBITDA as defined in the SVB Loan Agreement. Under the SVB Loan Agreement, the Company may prepay all, but not less than all, of the term loan by paying a prepayment premium equal to (i) 1.00% of the amount outstanding if prepayment occurs before the first anniversary of the term loan; (ii) 0.50% of the amount outstanding if prepayment occurs after the first, but before the second anniversary of the term loan; and (iii) 0.25% of the amount outstanding if prepayment occurs after the second anniversary of the term loan. In addition, if the term loan becomes due and payable because of the occurrence and continuance of an Event of Default (as defined in the SVB Loan Agreement), API will be required to pay a termination fee equal to 1.00% of the amount outstanding. The interest rates on the SVB term loan and line of credit as of September 27, 2013 were 4.25% and 3.75%, respectively. The Company had \$1,251,000 outstanding on the SVB line of credit with approximately \$2.1 million in additional borrowing capacity as of September 27, 2013 prior to liquidity covenant restrictions.

The EX-IM line of credit with SVB is guaranteed by the Company and its subsidiaries and all borrowings under the SVB Loan Agreement are secured by a first priority security interest granted to SVB over substantially all of the Company's respective assets. As of September 27, 2013, the Company is and expects to remain in compliance with the related liquidity and adjusted EBITDA covenant with SVB. The SVB term loan expires in March 2015 and the line of credit expires in January 2014, but can be extended each anniversary date by mutual consent.

Total interest payments made to the Company's bank lenders during the six months ended September 27, 2013 and September 28, 2012 were \$36,000 and \$30,000, respectively. Total interest payments made to the Company's bank lenders during the three months ended September 27, 2013 and September 28, 2012 were \$25,000 and \$14,000, respectively

#### MEDC/MSF Loans

The Michigan Economic Development Corporation (MEDC) entered into two unsecured loan agreements with the Company's subsidiary Picometrix: one in fiscal 2005 (MEDC-loan 1) and one in fiscal 2006 (MEDC-loan 2) for a total initial principal amount of \$2.2 million. Both loans have been modified as to the interest rate and principal repayment terms in prior years. Currently both loans have an interest rate of 4% and the maturity dates on MEDC-loan 1 and on MEDC-loan 2 are December 1, 2014 and October 1, 2014, respectively. Effective November 6, 2013, the Company and the Michigan Economic Development Corporation agreed to defer principal payments on their two loans until maturity of the debts in the third quarter of fiscal 2015 in exchange for an increase in the annual interest from 4% to 5% and a 15% default rate of interest, similar to the default rate granted SVB. This means that monthly principal payments which averaged approximately \$46,000 per month in the first six months of fiscal 2014 would now be deferred until maturity.

Interest payments made to the MEDC/MSF were \$17,000 and \$28,000 during the six months ended September 27, 2013 and September 28, 2012, respectively. Interest payments made to the MEDC/MSF were \$8,000 and \$13,000 during the three months ended September 27, 2013 and September 28, 2012, respectively.

#### Partners for Growth Secured Debt

On February 8, 2013, the Company entered into a secured debt agreement with PFG that is subordinated to SVB's senior secured position (the PFG Loan Agreement). In conjunction with this transaction, API executed a second amendment to the SVB loan to allow PFG a subordinated position and to adjust the previous covenant levels. On February 14, 2013, pursuant to the terms of the PFG Loan Agreement, the Company received \$2.5 million in cash and was obligated to make monthly principal and interest payments beginning in March 2013 for 42 months at an interest rate of 11.75%. Consistent with a second amendment to the SVB Loan Agreement, the PFG Loan Agreement provided for a minimum rolling three month adjusted EBITDA covenant, measured monthly, on a go forward basis and a minimum liquidity ratio of 2.25 to 1.00. The new adjusted EBITDA covenant begins at a negative adjusted EBITDA of \$750,000 for each month during the period February to June 2013, negative adjusted EBITDA of \$300,000 for each month during the period July through October 2013, adjusted EBITDA of \$1 for each month during the period November 2013 through February 2014, and adjusted EBITDA of \$100,000 thereafter, subject to reset based on mutual agreement once a fiscal year 2015 budget is submitted to the lenders.

As part of the consideration for the loan, the Company granted PFG and certain of its affiliates warrants to purchase up to 1,195,000 shares of Class A Common Stock with 995,000 of the shares issuable at \$0.50 per share, and the remaining 200,000 shares issuable at a \$1.00 strike price. In the event that the Company achieves at least \$32,600,000 in sales and \$412,000 in EBITDA during the fiscal year ending March 31, 2014, the warrant agreements (the PFG Warrant Agreements) provide that an aggregate of 100,000 of the \$0.50 warrants and an aggregate of 100,000 of the \$1.00 warrants will be cancelled. The PFG Warrant Agreements also include a net exercise provision pursuant to which the warrant holders would receive the number of shares equal to (i) the product of (A) the number of warrants exercised multiplied by (B) the difference between (1) the fair market value of a share of Class A Common Stock (with fair value generally being equal to the highest closing price of our Class A Common Stock during the 45 consecutive trading days prior to the date of exercise) and (2) the strike price of the warrant, (ii) divided by the fair market value of a share of Class A Common Stock. In addition, in the event the Company is acquired, liquidates, conducts a public offering, or the warrants expire, each warrant holder will have the right to "put" its warrants to the Company in exchange for a per share cash payment that varies with the number of shares issuable under each warrant, but in the aggregate will not exceed \$250,000. The Company determined the fair value of the warrant as of the issuance date to be \$434,000. Pursuant to the accounting literature, a debt discount and a warrant liability were established as of the issuance date with the debt discount amortized over the life of the loan on an effective interest method. As of September 27, 2013 and March 31, 2013, there was \$308,000 and \$405,000 respectively, in remaining unamortized debt discount offset against the PFG long term debt principal. See Note 6 to the Condensed Consolidated Financial Statements for additional information on the PFG warrants.

Interest payments made to PFG during the three and six month periods ended September 27, 2013 were \$66,000 and \$138,000, respectively. No interest payments were made to PFG during the three and six month periods ended September 28, 2012.

## Note 6. Stockholders' Equity

## Warrants

At September 27, 2013 and March 31, 2013, the Company had the following warrants outstanding and exercisable which could be exchanged into shares of Class A Common Stock:

	Shares (000's)	Exercise Price
2010 Warrants	267	\$ 1.376
PFG Warrants	995	\$ 0.500
PFG Warrants	200	\$ 1.000
Total	1,462	

On November 29, 2010, the Company issued 267,196 warrants to Robin Risser and Steve Williamson (the 2010 Warrants). Each 2010 Warrant is exercisable over a five year period for one share of the Company's Class A Common Stock at an exercise price subject to adjustment, based on a formula in the warrant agreements, if Common Stock is issued in the future below \$1.404. Future adjustments cannot reduce the exercise price below \$1.17. Given the issuance of the PFG Warrants in February 2013, a price reset was triggered to the 2010 Warrants and the new exercise price became \$1.376. As a result of the exercise price reset feature, the fair values of the warrants are recorded as a liability with changes in values flowing through the Consolidated Statements of Operations.

As described in Note 5, during February 2013, the Company issued warrants to PFG to purchase 1,195,000 shares of the Company's Class A Common Stock. The PFG warrants are exercisable over a five year period with 995,000 shares at a strike price of \$0.50 per share and another 200,000 shares with a strike price of \$1.00 per share. The PFG warrant agreement contains a provision allowing the warrants to be put back to the Company under certain circumstances. Given this feature, the fair values of the warrants are recorded as a liability with changes in values flowing through the Consolidated Statements of Operations.

For the three and six months ended September 27, 2013, the Company recorded income of \$107,000 and expense of \$89,000, respectively for the change in fair value of the warrant liability. For the three and six months ended September 28, 2012, the Company recorded expense of \$4,000 and income of \$13,000 respectively. The fair value of the warrant liability outstanding was approximately \$381,000 and \$292,000 as of September 27, 2013 and March 31, 2013, respectively.

The fair value of the warrant liability was estimated using the Monte Carlo option pricing model using the following assumptions:

	September 27, 2013		September 28, 2012
	PFG Warrants	2010 Warrants	2010 Warrants
Contractual term in years	4.4	2.2	3.2
Volatility	66.1%	72.6%	66.4%
Expected dividend	--	--	--
Risk-free interest rate	1.2%	0.4%	0.34%

Expected volatility is based primarily on historical volatility using the weekly stock price for the most recent period equivalent to the term of the warrants. A dividend yield of zero has been assumed based on the Company's actual past experience and the fact that the Company does not anticipate paying a dividend on its shares in the future. The Company has based its risk-free interest on the implied yield available on U.S. Treasury issues with equivalent contractual term.



When a warrant may have different share exercise assumptions such as those issued in February 2013 to PFG and affiliates, the Company weighs various values based on the estimated probability of each outcome as of the valuation date.

The following chart represents the activity in the Company's Level 3 warrants during the six months ended September 27, 2013 and the year ended March 31, 2013.

	Six months Ended September 27, 2013	Year Ended March 31, 2012
Level 3 Warrants, beginning of period	\$ 292,000	\$ 26,000
Addition – PFG Warrants, initial fair value	--	434,000
Change in fair value of warrant liability	89,000	(168,000 )
Level 3 Warrants, end of period	\$ 381,000	\$ 292,000

#### MEDC Put Option

In May 2010, the Company entered into a debt conversion agreement with the MEDC whereby the MEDC converted the accrued and unpaid interest as of November 30, 2009 totaling \$562,336 into 1,041,363 unregistered shares of our Class A Common Stock at a price per share of \$0.54 (market value of the stock on the day of conversion). In addition, the Company granted MEDC a put option to sell back the shares received pursuant to the debt conversion agreement in the event of a trigger event as defined in the debt conversion agreement. Given the conditions under which the put may be exercised are in the control of the Company, a liability for the fair value has not been recorded.

#### Note 7. Earnings Per Share

The Company's net earnings per share calculations are in accordance with FASB ASC 260-10. Accordingly, basic earnings (loss) per share are computed by dividing net earnings (loss) by the weighted average number of shares outstanding for each period. The calculation of loss per share is as follows:

Basic and Diluted	Three months ended	
	September 27, 2013	September 28, 2012
Weighted Average Basic Shares		
Outstanding	31,229,000	31,161,000
Dilutive effect of Stock Options and Warrants	--	--
Weighted Average Diluted Shares		
Outstanding	31,229,000	31,161,000
Net income (loss)	\$ (578,000 )	\$ (1,287,000 )
Basic and Diluted income (loss) per share	\$ (0.02 )	\$ (0.04 )

Basic and Diluted	Six months ended	
	September 27, 2013	September 28, 2012
Weighted Average Basic Shares		
Outstanding	31,213,000	31,161,000
Dilutive effect of Stock Options and Warrants	--	--
Weighted Average Diluted Shares		
Outstanding	31,213,000	31,161,000
Net income (loss)	\$ (1,503,000 )	\$ (2,280,000 )



Basic and Diluted income (loss) per share    \$    (0.05            )            \$    (0.07            )

The dilutive effect of stock options and warrants for each of the periods was not included in the calculation of diluted loss per share because to do so would have had an anti-dilutive effect as the Company had a net loss for the period. As of September 27, 2013, the number of anti-dilutive shares excluded from diluted earnings per share totaled approximately 3.6 million shares, which includes 1,462,000 anti-dilutive warrants.

#### Note 8. Silonex Net Asset Purchase

On March 1, 2013, the Company, through its Advanced Photonix Canada, Inc. subsidiary (APC), acquired substantially all the operating assets and assumed certain liabilities of Silonex, Inc.'s business for \$900,000 in cash, which was primarily funded with the PFG proceeds. Silonex designed, manufactured and marketed optoelectronic devices and sensor solutions to various vertical markets, including Industrial Controls, Banking, Vending, Medical and Telecommunications. The products, customers and business operations are complimentary to, and have minimal overlap with, the Company's Optosolutions product line, and broaden the Company's supply channel due to Silonex's existing relationships with Chinese manufacturers. The results of operations of APC have been included in the consolidated financial statements since the date of the acquisition. The functional currency of APC is the US dollar.

Silonex was part of a privately owned company, and prepared financial statements with multiple charge out of costs, intercompany sales and royalty arrangements that do not reflect the actual operation of the business as acquired. Therefore the Company has considered it impractical to reconstruct a full Statement of Operations on a proforma basis for prior comparable periods. Given certain assumptions on China sales which were done on a royalty basis, the Company has been able to estimate the total sales for the comparable three and six months of fiscal 2013 at approximately \$930,000 and \$1.8 million, respectively. APC sales included in the Company's results for the three month and six months of fiscal 2014 were \$944,000 and \$2.0 million, respectively. APC net income included in the Company's results for the three and six months of fiscal 2014 were 29,000 and 64,000, respectively.

#### Note 9. Fair Value of Financial Instruments

The carrying value of all financial instruments potentially subject to valuation risk (principally consisting of cash equivalents, accounts receivable, and accounts payable) approximates the fair value based upon the short-term nature of these instruments. In the case of MEDC/MSF, PFG, and bank debt, the carrying value approximates fair value based upon prevailing interest rates available to the Company for debt of similar nature and maturity.

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

### Forward-Looking Statements

Certain statements contained in this Management's Discussion and Analysis (MD&A), including, without limitation, statements containing the words "may," "will," "can," "anticipate," "believe," "plan," "estimate," "continue," and similar expressions constitute "forward-looking statements." These forward-looking statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. You should not place undue reliance on these forward-looking statements. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including risks described in the Risk Factors sections of our Annual Report on Form 10-K for the period ended March 31, 2013 (the 2013 Form 10-K) and elsewhere in this filing. Except for our ongoing obligation to disclose material information as required by federal securities laws, we do not intend to update you concerning any future revisions to any forward-looking statements to reflect events or circumstances occurring after the date of this report. The following discussion should be read in conjunction with the Risk Factors as well as our financial statements and the related notes.

### Overview

API is a leading test and measurement company that packages optoelectronic semiconductors into high-speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz (THz products) instrumentation, serving a variety of global markets. Our HSOR transmission products are deployed in the internet infrastructure to enable the high-speed bandwidth necessary to support video and data for your TV, computer, tablet or smart phone anytime and anywhere. Our communication test and measurement products (Comtest) are used to develop, manufacture and test optical communication equipment used in the telecom infrastructure. Our Optosolutions products are sold to a number of scientific instrumentation manufacturers for various applications such as metrology, currency validation, flame monitoring, solar panel quality, temperature sensing, particle detection, color sensing, infrared detection and many other applications that can only be done through optical sensing. Our T-Gauge® systems are used to measure and verify physical properties on-line and in real-time to reduce raw materials and rework costs in manufacturing processes as well as conduct quality control monitoring. Our established and growing patented Terahertz technology has allowed us to expand from the laboratory market into the 24/7 industrial process and quality control manufacturing, military/aero, and security markets.

We support the customer from the initial concept and design of the semiconductor, hybridization of support electronics, packaging and signal conditioning or processing from prototype through full-scale production and validation testing. The target markets served by us are Test and Measurement, Military/Aerospace, Telecom Transmission, Medical and Homeland Security.

### Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based on the condensed consolidated financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. The preparation of these condensed consolidated financial statements requires us to make judgments and estimates that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statement and the reported amount of revenues and expenses during the reporting period. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Actual results may differ from such estimates under different assumptions or conditions.

#### Application of Critical Accounting Policies

Application of our accounting policies requires management to make certain judgments and estimates about the amounts reflected in the financial statements. We use historical experience and all available information to make these estimates and judgments, although differing amounts could be reported if there are changes in the assumptions and estimates. Estimates are used for, but not limited to, the accounting for the allowance for doubtful accounts, inventory cost adjustments, impairment costs, depreciation and amortization, warranty costs, taxes and contingencies. We have identified the following accounting policies as critical to an understanding of our financial statements and/or as areas most dependent on management's judgments and estimates.

#### Revenue Recognition

Revenue is derived principally from the sales of our products. We recognize revenue when persuasive evidence of an arrangement exists, usually in the form of a purchase order, when shipment has occurred since title and risk of loss passes at that time, or when services have been rendered, the price is fixed or determinable and collection is reasonably assured in terms of both credit worthiness of the customer and there are no post shipment obligations or uncertainties with respect to customer acceptance.

We sell certain of our products to customers with a product warranty that provides warranty repairs at no cost. The length of the warranty term is one year from date of shipment. We accrue the estimated exposure to warranty claims based upon historical claim costs. We review these estimates on a regular basis and adjust the warranty provisions as actual experience differs from historical estimates or as other information becomes available.

We do not provide price protection or a general right of return. Our return policy only permits product returns for warranty and non-warranty repair or replacement and requires pre-authorization by us prior to the return. Credit or discounts, which have been historically insignificant, may be given at our discretion and are recorded when and if determined.

We predominantly sell directly to original equipment manufacturers with a direct sales force with limited sales through representatives, value added resellers (VAR's) and distributors. Distributor and VAR sales represented approximately 9% of total revenue for the six months ended September 27, 2013. Significant terms and conditions of distributor agreements include FOB source, net 30 days payment terms, with no return and limited exchange rights, and no price protection. Since the product transfers title to the distributor at the time of shipment by us, the products are not considered inventory on consignment.

Revenue is also derived from technology research and development contracts. We recognize revenue from these contracts as services and/or materials are provided.

#### Impairment of Long-Lived Assets

As of September 27, 2013 and March 31, 2012, our consolidated balance sheets included \$4.6 million in goodwill. Goodwill represents the excess purchase price over amounts assigned to tangible or identifiable intangible assets acquired and liabilities assumed from our business acquisitions.

Goodwill and intangible assets that are not subject to amortization are tested for impairment annually or more frequently if events or changes in circumstances indicate that the asset might be impaired. In our annual assessment of goodwill impairment, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying value before performing the two step impairment test. If after assessing the totality of events or circumstances, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the two step impairment test is not necessary. Step one of the two step impairment test is to compare the fair value of the reporting unit with the unit's carrying amount, including goodwill. If this test indicates

that the fair value is less than the carrying value, then step two is required to compare the implied fair value of the reporting unit's goodwill with the carrying amount of the reporting unit's goodwill. If the carrying amount of the goodwill exceeds its implied fair value, an impairment loss shall be recognized in an amount equal to that excess. We have selected March 31 as the date for our annual impairment test.

We continue to meet the criteria of operating in a single reportable segment and having a single reporting unit. We determine the fair value of our single reporting unit to be equal to our market capitalization plus a control premium. Market capitalization is determined by multiplying the shares outstanding on the assessment date by the average market price of our Class A Common Stock over a 10-day period before and a 10-day period after each assessment date. We use this 20-day duration to remove inherent market fluctuations that may affect any individual closing price. We believe that the market capitalization alone does not fully capture the fair value of our business as a whole, or the substantial value that an acquirer would obtain from its ability to obtain control of our business. As such, in determining fair value, we add a control premium, which seeks to give effect to the increased consideration a potential acquirer would be required to pay in order to gain sufficient ownership to set policies, direct operations and make decisions. Our valuation as of September 27, 2013 indicated there were no impairments of Goodwill as our market capitalization, as computed as described above was, even without a control premium added, in excess of the carrying value including Goodwill of \$13.0 million.

As evidenced above, our stock price and control premium are significant factors in assessing our fair value for purposes of the goodwill impairment assessment. The stock price can be affected by, among other things, changes in industry or market conditions, changes in our results of operations, and changes in our forecasts or market expectations relating to future results. The stock price has fluctuated from a high of \$0.74 to a low of \$0.42 on an intra-day basis during fiscal 2014. The current macroeconomic environment continues to be challenging and we cannot be certain of the duration of these conditions and their potential impact on our stock price performance. If our market capitalization falls below the current carrying value for a sustained period, it is reasonably likely that an intangible and goodwill impairment assessment would be necessary and a non-cash charge to operating income may be recorded.

The carrying value of other long-lived assets, including amortizable intangibles, leasehold improvements, and equipment, are evaluated whenever events or changes in circumstances indicate that a potential impairment has occurred relative to a given asset or assets. Impairment is deemed to have occurred if projected undiscounted cash flows associated with an asset (asset group) are less than the carrying value of the asset (asset group). The estimated cash flows include management's assumptions of cash inflows and outflows directly resulting from the use of that asset, or group of assets used in conjunction with the specific asset or assets, in operations. The amount of the impairment loss recognized is equal to the excess of the carrying value of the asset, or asset group, over its then estimated fair value. As a result of the prior year operating loss, we performed an impairment evaluation as of the end of fiscal 2013 that contained projected undiscounted cash flows of the Picometrix subsidiary as this accounts for a vast majority of the amortizing intangibles, leasehold improvements and equipment subject to the impairment test. Given the shared nature of the manufacturing process for the photodiodes, which are essential for all products sold out of Picometrix, we have determined the lowest level of cash flows to be the Picometrix subsidiary. The impairment analysis involved forecasting future undiscounted cash flows of the Picometrix group of assets over the estimated useful life of the primary asset of the group. After performing this first step analysis, we concluded that as of March 31, 2013 there were no impairments indicated based upon the expected overall growth in the 100 Gigabyte (100G) market and our restored ability to service this growth given the resolution of supply chain constraints. Given the performance in the first half of fiscal 2014 relative to these projections, we continue to conclude there is no impairment. Further, our Terahertz products have been cost reduced to a point where they have become a competitive green alternative to the nuclear gauges used to control certain continuous manufacturing processes. We believe that we are nearing a point of significant growth in the adoption of this disruptive technology which further increases the expected future cash flows of the group.

#### Deferred Tax Asset Valuation Allowance

We record deferred income taxes for the future tax consequences of events that were recognized in our financial statements or tax returns. We record a valuation allowance against deferred tax assets when, in management's judgment, it is more likely than not that the deferred income tax assets will not be realized in the foreseeable future. Consistent with the 2013 Form 10-K, we have continued a full valuation allowance on our net Deferred Tax Assets as of September 27, 2013

#### Inventories

Inventories, which include material, labor and manufacturing overhead, are stated at the lower of cost (on a first in–first out basis) or market. Slow moving and obsolete inventories are reviewed throughout the year to assess whether a cost adjustment is required. Our review of slow moving and obsolete inventory begins with a listing of all inventory items which have not moved regularly within the past 12 months. In addition, any residual inventory, which is customer specific and remaining on hand at the time of contract completion, is included in the list. The complete list of slow moving and obsolete inventory is then reviewed by the production, engineering and/or purchasing departments to identify items that can be utilized in the near future. These items are then excluded from the analysis and the remaining amount of slow-moving and obsolete inventory is then further assessed and a write down is recorded when warranted. Additionally, non-cancelable open purchase orders for parts we are obligated to purchase where demand has been reduced may also be written down. Impairments for open purchase orders where the market price is lower than the purchase order price are also recorded. The impairments established for excess, slow moving, and obsolete inventory create a new cost basis for those items. The cost basis of these parts is not subsequently increased if the circumstances which led to the impairment change in the future. If a product that had previously been impaired is subsequently sold, the amount of reduced cost basis is reflected as cost of products sold.

#### Warrant Valuations

We have warrants outstanding exercisable into 1,462,196 shares of Series A Common Stock with an estimated fair value of \$381,000 as of September 27, 2013. We compute the fair value of the warrants using the Monte Carlo model, which is generally a preferred model when instruments contain non-standard features. When a warrant may have different share exercise assumptions such as those issued in February 2013 to Partners for Growth III, L.P. and affiliates, we weigh various values based on the estimated probability of each outcome as of the valuation date. The value derived from the model is therefore sensitive to changes in our weighting and also changes in the inputs regarding the current stock price, the contractual term, volatility, risk free interest rates and expected dividend rate.

### RESULTS OF OPERATIONS

#### Revenues

We predominantly operate in one industry segment, consisting of light and radiation detection devices that we sell to multiple end market applications. Prior to fiscal 2014, in Management's Discussion and Analysis of Financial Condition and Results of Operations, we had combined our telecommunication transmission product sales and communication test and measurement product sales (Comtest) as telecommunication revenue. Going forward we have retroactively split this out so that the telecommunication revenue includes solely the transmission revenue. We have included the Comtest product sales in a new category titled, Test and Measurement. In addition we have categorized the previous Industrial Market products as Test and Measurement since in practice they are used to test, verify or take measurements. Therefore, the new Test and Measurement market includes the Comtest products, the former Optosolutions Industrial products and the former Terahertz Industrial products. The Military/Aerospace, Medical and Homeland Security market definitions remain unchanged. Revenues by market consisted of the following (in thousands):





Revenues	Three months ended				Six months ended				
	September 27, 2013		September 28, 2012		September 27, 2013		September 28, 2012		
T e s t a n d									
Measurement	\$ 4,681	62 %	\$ 3,291	59 %	\$ 9,120	63 %	\$ 6,910	59 %	
Telecommunications	1,696	23 %	983	17 %	2,952	20 %	2,080	17 %	
Military/Aerospace	711	9 %	1,056	19 %	1,758	12 %	2,361	20 %	
Medical	448	6 %	256	5 %	784	5 %	451	4 %	
Homeland Security	0	0 %	0	0 %	0	0 %	0	0 %	
Total Revenues	\$ 7,536	100 %	\$ 5,586	100 %	\$ 14,614	100 %	\$ 11,802	100 %	

Our revenues for the quarter ended September 27, 2013 were \$7.5 million, an increase of 35% (or \$1.9 million) from revenues of \$5.6 million for the quarter ended September 28, 2012. On a year to date basis, our revenues were \$14.6 million, an increase of \$2.8 million or 24% from revenues of \$11.8 million for the six months ended September 28, 2012. Sequentially, revenues increased 6% or \$458,000 from the quarter ended June 28, 2013. We experienced revenue increases in three of five markets for the quarter and six months ending September 27, 2013 compared to the prior year period.

The Test and Measurement market revenue was approximately \$4.7 million and \$9.1 million in the second quarter and first half of fiscal 2014, an increase of \$1.4 million and \$2.2 million over the related prior year periods. A significant portion of the growth was attributable to the March 2013 acquisition of the Silonex net operating assets by our newly formed Canadian subsidiary, Advanced Photonix Canada, Inc. (APC) as revenues were \$945,000 and \$2.0 million in the second quarter and first half of fiscal 2014, respectively. In addition, we saw improvements in our Comtest product sales as well as our Optosolutions products. Sequentially, revenue increased approximately 5%, or \$242,000, from the first quarter of fiscal 2014 on the strength of Comtest product sales. Several telecommunication original equipment manufacturers (OEM's) have begun using our Comtest products to incorporate into their own manufacturing test equipment causing a near term rise in demand. This is in addition to the traditional test and measurement OEM's that have introduced or plan to introduce new products for high speed applications.

Telecommunications revenues in the second quarter and first half of fiscal 2014 were \$1.7 million and \$3.0 million, respectively, an increase of 73% and 42% respectively from the prior year periods. The higher revenue was primarily due to the resolution of supply constraints in our 100G line side products and timing of orders and revenue on 40G line side products. Telecommunications revenue on a consecutive quarterly basis increased 35%, or \$440,000, from the first quarter of fiscal 2014. We have seen several carriers shift their capital spend to increase their bandwidth on their optical networks which has improved both 40G and 100G sales. As we look forward, we expect the growth to shift to 100G sales given the many advantages of coherent technology over prior long haul transmission protocols.

Military/Aerospace market revenues in the second quarter and first half of fiscal 2014 were \$711,000 and \$1.8 million respectively, a decrease of 33% from the comparable prior year second quarter and a 26% decrease over the prior year first half. Terahertz development programs for the F-35 program have wound down since last year causing most of these quarterly and year to date decreases. Revenues decreased by \$336,000 (or 32%) from the first quarter of fiscal 2014. The sequential decline is due to the timing of orders and shipments for several Optosolutions military programs which we believe stems from government sequestration affecting defense expenditures.

Medical market revenues in the second quarter and first half of fiscal 2014 were \$448,000, and \$784,000 respectively, a \$192,000 and \$333,000 increase from the prior year periods. These improvements in revenue are mainly due to the timing of shipments related to one customer.

Homeland Security revenues were zero for all comparable periods. Any future revenues will be dependent on placement of our product on the US government's qualified products list.

Overall, we would reiterate our previous expectation for fiscal year 2014 revenues to grow by more than 35% provided the recent government shutdown and sequestration does not trigger businesses to slow their infrastructure spending and upcoming US budget negotiations do not delay certain government Terahertz contract awards that have been anticipated in our forecast.

#### Gross Profit

Gross profit for the second quarter of fiscal 2014 was \$2.8 million compared to \$2.0 million for the second quarter of fiscal 2013, an increase of \$815,000 on a revenue improvement of \$2.0 million. Year to date gross profit was \$5.7 million (39% of sales) up from \$4.2 million (36% of sales) in the first half of fiscal 2013. The higher gross profit dollars has been driven by the higher revenues from the APC acquisition, improving HSOR volumes, and cost reduction efforts.

Gross profit percentage was 37% for the second quarter of fiscal 2014 compared to 35% in the second quarter of fiscal 2013 and 41% in the first quarter of fiscal 2014. The fiscal 2014 second quarter gross margin rate improved year over year given higher factory utilization and cost reduction efforts over the last year. The rate declined sequentially given a shift in mix, as Terahertz revenues declined while HSOR revenues improved.

#### Operating Expenses

Total operating expenses for the quarter and first half of fiscal 2014 were \$3.3 million and \$6.8 million, an increase of \$87,000 and \$319,000 over the comparable fiscal 2013 periods completely due to the operating expenses assumed in the APC acquisition. Total operating expenses for the second quarter of fiscal 2014 decreased by \$118,000 when compared to the first quarter of fiscal 2014 given the reduction in engineering spend.

Research, Development and Engineering (RD&E) expenses decreased by \$108,000 (or 8%) in the second quarter of fiscal 2014 compared to the second quarter of fiscal 2013 given lower headcount and outside contractor spend as we have completed several major projects. RD&E expenses increased by \$13,000 in the first half of fiscal 2014 relative to the first half of fiscal 2013 as engineering costs taken on as part of the APC acquisition have largely been offset by organic expense reductions in the base API business.

Sales and Marketing (S&M) expenses increased by \$144,000 (or 29%) in the second quarter of fiscal 2014 compared to the prior year second quarter and increased \$226,000 (or 23%) in the first half of fiscal 2014 versus the same period in fiscal 2013. The increases were primarily attributable to overheads assumed from the APC acquisition and commissions paid on higher revenues.

General and Administrative (G&A) expenses increased \$83,000 and \$154,000 for the second quarter and first half of fiscal 2014 when compared to prior year periods. The increase was primarily attributable to the overheads assumed in the APC acquisition and higher proxy legal expenses.

Amortization expense decreased \$32,000 to \$259,000 compared to the second quarter of fiscal 2013 expense of \$291,000. For the first half of fiscal 2014 versus fiscal 2013, the amortization expense declined by \$74,000. We utilize the cash flow amortization method on the majority of our intangible assets which means lower amortization as the assets near the end of their lives.



The non-cash expensing of stock option and restricted stock grants included in operating expenses was \$39,000 and \$66,000 for the three and six month period ended September 27, 2013 compared to \$45,000 and \$71,000 for the three and six month period ended September 28, 2012 as stock awards have been limited over the past year.

#### Other Income (Expense), net

Interest expense in the second quarter and first half of fiscal 2014 was \$165,000 and \$325,000 respectively. This increase of \$135,000 and \$262,000 in expense relative to prior year periods is due to the increase in total debt associated with the PFG funding and the non-cash amortization of the debt discount related to the initial value of the warrants granted as part of the PFG funding.

The fair value of the warrant liability discussed in Note 6 is determined using a Monte Carlo option pricing model, and is affected by changes in inputs to that model including our stock price, expected stock price volatility and contractual term. To the extent that the fair value of the warrant liability increases or decreases, we record an expense or income in our consolidated statements of operations. The income of \$107,000 for the current quarter and expense of \$89,000 for the six months ended September 27, 2013 are attributed to the change in fair value of the warrant liability driven primarily by the change in the stock price at quarter end. This is in contrast to small changes in the three and six month periods of the prior year.

#### Net Loss

We realized a net loss for the second quarter of fiscal 2014 of \$578,000 (\$0.02 per share), as compared to a net loss of \$1,287,000 (\$0.04 per share) in the second quarter of fiscal 2013, a reduction in net loss of \$709,000. Year to date we realized a net loss of \$1,503,000 in fiscal 2014 relative to a net loss of \$2,280,000 in fiscal 2013. This decrease in net loss for the fiscal 2014 second quarter and six months is primarily attributable to the improving sales and related gross profit.

#### Fluctuation in Operating Results

Our operating results may fluctuate from period to period and will depend on numerous factors, including, but not limited to, customer demand and market acceptance of our products, new product introductions, product obsolescence, component price fluctuation, manufacturing inefficiencies, varying product mix, and other factors. If demand does not meet our expectations in any given quarter, the sales shortfall may result in an increased impact on operating results due to our inability to adjust operating expenditures quickly enough to compensate for such shortfall. Our result of operations could be materially adversely affected by changes in economic conditions, governmental or customer spending patterns for the markets we serve. The current turbulence in the global financial markets and its potential impact on global demand for our customers' products and their ability to finance capital expenditures could materially affect our operating results. In addition, any significant reduction in defense spending as a result of a change in governmental spending patterns could reduce demand for our product sold into the military market.

#### Liquidity and Capital Resources

At September 27, 2013, we had cash and cash equivalents of \$371,000, a decrease of \$248,000 from the March 31, 2013 balance. The lower balance for the six month period is attributable to cash used in operating activities of \$475,000, cash used in investing activities of \$220,000, and cash provided in financing activities of \$447,000. We had approximately \$2.1 million in additional borrowing capacity with SVB as of September 27, 2013 prior to liquidity covenant restrictions as discussed in Note 5 to the financial statements.

#### Operating Activities

The decrease of \$475,000 in cash resulting from operating activities for the six months ended September 27, 2013 was split between net cash used in operations of \$276,000 and a \$199,000 increase in net working capital. A higher level of sales has driven the need for higher inventory and accounts receivable levels. Cash used in operations of \$276,000 resulted from the net loss of \$1,503,000 less non-cash charges of \$1,227,000 in depreciation, amortization, stock-based compensation and change in fair value of the warrant liability.

#### Investing Activities

For the six months ended September 27, 2013, we used \$220,000 in investing activities comprised of capital expenditures of \$93,000 and patent expenditures of \$127,000.

#### Financing Activities

For the six months ended September 27, 2013, \$447,000 in cash was provided in financing activities, as repayments of principal on outstanding term loans and MEDC were more than offset by draws on the SVB line of credit. On November 6, 2013, we signed amendments to the loan agreements with the Michigan Economic Development Corporation to defer principal payments on their two loans until the maturity date in the third quarter of our fiscal 2015 in exchange for an increase in the annual interest from 4% to 5% and a 15% default rate of interest, which is similar to what was granted to SVB. This means that monthly principal payments which averaged approximately \$46,000 per month in the first six months of fiscal 2014 would now be deferred until maturity.

#### Off-Balance Sheet Arrangements

We identify and disclose all significant off balance sheet arrangements and related party transactions. API does not utilize special purpose entities or have any known financial relationships with other companies' special purpose entities.

#### Operating Leases

We enter into operating leases where the economic climate is favorable. The liquidity impact of operating leases is not material.

#### Purchase Commitments

We have purchase commitments for materials, supplies, services, and property, plant and equipment as part of the normal course of business. Commitments to purchase inventory at above-market prices have been reserved. Certain supply contracts may contain penalty provisions for early termination. Based on current expectations, we do not believe that it is reasonably likely to incur any material amount of penalties under these contracts.

#### Other Contractual Obligations

We do not have material financial guarantees that are reasonably likely to affect liquidity.

Based on the most recent SVB and PFG covenants, the deferral of principal payments with MEDC, expected cash flow from operations, and the current SVB line of credit, we believe that our existing cash and cash equivalents will be sufficient for the next twelve months. Positive cash flow from operations is highly dependent on increasing revenue levels. We have had and may continue to experience supply limitations that could hamper our ability to achieve the levels of HSOR revenue and the related gross margin previously enjoyed. We may therefore need additional financing to fund our operations in the future and there can be no assurance that additional funds will be available, especially if we experience operating results below expectations, or, if financing is available, there can be no assurance as to the terms on which funds might be available. If adequate financing is not available as required, or is not available on favorable terms, our business, financial position and results of operations will be adversely affected.



Recent Pronouncements and Accounting Changes

None.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

At September 27, 2013, most of our interest rate exposure is on our bank debt which is linked to the prime rate, subject to certain limitations, offset by cash which could be invested in short term instruments. As such, we are at risk to the extent of the spread between these two types of instruments. We do not believe that moderate changes in the prime rate will materially affect our operating results or financial condition.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officers (the Certifying Officers) are responsible for establishing and maintaining disclosure controls and procedures for the Company. The Certifying Officers have designed such disclosure controls and procedures to ensure that material information is made known to them, particularly during the period in which this report was prepared. The Certifying Officers have evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Exchange Act Rule 13a-15(e) and 15d-15(e) (the Rules) under the Securities Exchange Act of 1934 (or Exchange Act)) as of the end of the period covered by this quarterly report and believe that our disclosure controls and procedures are effective based on the required evaluation.

There was no change in our internal control over financial reporting that occurred during the quarter ended September 27, 2013 that has materially affected or is reasonably likely to materially affect our internal controls.

Part II — OTHER INFORMATION

Item 1. Legal Proceedings

The information regarding litigation proceedings described in our Annual Report on Form 10-K for the year ended March 31, 2013 is incorporated herein by reference.

Item 1A. Risk Factors

The Company's Annual Report on Form 10-K for the fiscal year ended March 31, 2013 includes a detailed discussion of its risk factors. This 10-Q should be read in conjunction with the risk factors and information disclosed in the Company's Annual Report on Form 10-K.

There has been no material changes in our risk factors from those disclosed in the 2013 Form 10-K except for the following:

The Company's cost saving initiatives may not be effective, and the Company's ability to develop products could be adversely affected by reduced research and development.

To conserve cash and more closely align our spending towards our strategic objectives, we have implemented a number of cost reduction initiatives over the past several years, including a workforce reduction in our administrative, research and development and sales and marketing staffs and a refocusing of our research and development plans. We cannot assure you that the assumptions underlying our decisions as to which reductions to make as part of these cost reduction initiatives will prove to be correct and, accordingly, we may determine that we have reduced or eliminated resources that are necessary to, or desirable for, our business. In particular, the reductions that we have made to our research and development staff and RD&E expenses could hinder the Company's ability to update or introduce new products.

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

Not Applicable

Item 3. Defaults upon Senior Securities

Not Applicable

Item 4. Mine Safety Disclosures

Not Applicable

Item 5. Other Information

Not Applicable





Item 6. Exhibits

The following documents are filed as Exhibits to this report:

Exhibit No.

- 31.1 Certificate of the Registrant's Chief Executive Officer, and Director pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certificate of the Registrant's Chief Financial Officer, and Secretary pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certificate pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certificate pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101.INS XBRL Instance
- 101.SCH XBRL Taxonomy Extension Schema
- 101.CAL XBRL Taxonomy Extension Calculation
- 101.DEF XBRL Taxonomy Extension Definition
- 101.LAB XBRL Taxonomy Extension Label
- 101.PRE XBRL Taxonomy Extension Presentation

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Advanced Photonix, Inc.  
(Registrant)

November 12, 2013

/s/ Richard Kurtz  
Richard Kurtz  
Chief Executive Officer, President  
and Director

/s/ Jeff Anderson  
Jeff Anderson  
Chief Financial Officer