

ADVANCED PHOTONIX INC  
Form 10-K  
July 01, 2013

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended March 31, 2013

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

1-11056

(Commission file number)

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

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

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

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

Securities registered pursuant to Section 12(b) of the Act:  
Title of each class Name of each exchange on which registered

Common Stock, \$0.001 par value NYSE MKT: API

Securities registered pursuant to Section 12(g) of the Exchange Act:  
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

YES  NO

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 (§ 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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)  
reporting company)

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of September 30, 2012 was approximately \$16,104,000.

Number of shares outstanding of the registrant's Common Stock as of June 21, 2013: 31,157,547 shares of Class A Common Stock.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement to be filed pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934 in connection with the 2013 Annual Meeting of Stockholders of registrant have been incorporated by reference into Part III of this Form 10-K.

ADVANCED PHOTONIX, INC.  
FORM 10-K  
FISCAL YEAR ENDED MARCH 31, 2013  
TABLE OF CONTENTS

		Page
Part I		
<u>Item 1.</u>	<u>Business</u>	4
<u>Item 1A.</u>	<u>Risk Factors</u>	12
<u>Item 2.</u>	<u>Properties</u>	24
<u>Item 3.</u>	<u>Legal Proceedings</u>	24
<u>Item 4.</u>	<u>Mine Safety Disclosures</u>	24
Part II		
<u>Item 5.</u>	<u>Market for Registrant’s Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities</u>	25
<u>Item 6.</u>	<u>Selected Financial Data</u>	26
<u>Item 7.</u>	<u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	26
<u>Item 7A.</u>	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	35
<u>Item 8.</u>	<u>Financial Statements and Supplementary Data</u>	35
<u>Item 9.</u>	<u>Changes In and Disagreements with Accountants on Accounting and Financial Disclosure</u>	58
<u>Item 9A</u>	<u>Controls and Procedures</u>	58
<u>Item 9B.</u>	<u>Other Information</u>	59
Part III		
<u>Item 10.</u>	<u>Directors, Executive Officers and Corporate Governance</u>	60
<u>Item 11.</u>	<u>Executive Compensation</u>	60
<u>Item 12.</u>	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	60
<u>Item 13.</u>	<u>Certain Relationships and Related Transactions, and Director Independence</u>	60
<u>Item 14.</u>	<u>Principal Accountant Fees and Services</u>	60
Part IV		
<u>Item 15.</u>	<u>Exhibits and Financial Statement Schedules</u>	61
<u>Signatures</u>		67

## PART I

Except for the historical information contained herein, this report contains forward looking statements that involve a number of risks and uncertainties, including the difficulty of predicting demand for new optoelectronic products, the impact of competitive products and pricing, challenges to our intellectual property, our expectations about the impact of our acquisition of the non-automotive assets of Silonex, Inc. (Silonex) on our results and business and our ability to realize the expected benefits from the acquisition and successfully implement our plans and expectations for the Silonex business, the sufficiency of our sources of funding, the uncertainty and timing of the development and launch of new optoelectronic products, as well as other statements regarding our future operations, financial condition and prospects, and business strategies. Forward-looking statements may appear throughout this report, including without limitation, the following sections: Item 1 “Business,” Item 1A “Risk Factors,” and Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Forward-looking statements generally can be identified by words such as “anticipates,” “believes,” “estimates,” “expects,” “intends,” “plans,” “predicts,” “projects,” “will be,” “will likely result,” and similar expressions. These forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause our actual results to differ materially from those reflected in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Annual Report on Form 10-K, and in particular, the risks discussed under the caption “Risk Factors” in Item 1A and those discussed in other documents we file with the Securities and Exchange Commission (SEC). We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements

### Item 1. Business

#### General

Advanced Photonix, Inc. ® (the Company, we, us, our or API) was incorporated under the laws of the State of Delaware in June 1988. We are engaged in the development and manufacture of optoelectronic devices and value-added sub-systems and systems. We serve a variety of global Original Equipment Manufacturers (OEMs) in five primary markets. We support our customers from the initial concept and design phase of the product, through testing to full-scale production. We have three manufacturing facilities located in Camarillo, California, Ann Arbor, Michigan and Montreal, Canada.

#### Products and Technology

##### Our Business

API is a leading supplier of optoelectronic semiconductors packaged into high-speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz (THz products) instrumentation, serving a variety of global OEMs. Our patented high-speed optical receivers include Avalanche Photodiode (APD) technology and PIN (positive-intrinsic-negative)-photodiode technology based upon III-V materials, including InP, InAlAs, and GaAs. Our optoelectronic subsystems are based on our silicon Large Area Avalanche Photodiode (LAAPD), PIN photodiode, FILTRODE® detectors and LED assemblies. Our Terahertz sensor product line is targeted at the industrial, homeland security and military markets. Using our patented fiber coupled technology and high speed Terahertz generation and detection sensors, we are engaged in transferring Terahertz technology from the laboratory to the factory floor for use in non-destructive testing and real time quality control.

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 Industrial Sensing/NDT, Military/Aerospace, Telecom, Medical and Homeland Security.

#### Technology & Manufacturing Capabilities

Our basic technologies and manufacturing capabilities include the following:

Optoelectronic semiconductor design and micro fabrication of III-V compound semiconductor (InP and GaAs) and Silicon (Si) devices including photodetectors and terahertz transmitters/receiver antenna,  
Molecular Beam Epitaxy (MBE) growth of high-speed III-V compound semiconductor material including GaAs, InAlAs and InP,

High speed semiconductor analog amplifier specification, evaluation and design for outside fabrication,  
Photonic integrated circuit (PIC) coherent mixers and delay line interferometer (DLI) specification, evaluation, post processing, and design for outside fabrication for use in 40Gb/s and 100 Gb/s line side optical receivers,

Opto-electronic hybrid packaging of semiconductor devices combining opto-electronic devices with high-speed electronics and fiber optics,

Vapor deposition and/or ion implantation for Silicon based PIN & APD photo-detectors,  
Terahertz systems, subsystems, transmitters and receivers, transceivers and motion control hardware and software,  
Femtosecond laser specification, valuation, design and manufacture and  
Chromatic dispersion, polarization dispersion and optical delay management in complex optical systems.

#### Core Products

The core product technologies used in the majority of our products are opto-electronic semiconductor devices, including photodiodes and antennae made of Si or III-V compound semiconductor material and high speed semiconductor analog amplifiers. Photodiodes and antennae sense light of varying wavelengths and intensity and convert that light and/or Terahertz wave into electrical signals. Analog amplifiers increase the converted electrical signals output power to a level required to communicate with follow on electrical components. We manufacture photodiodes of varying complexity, from basic PIN photodiode to the more sophisticated APD and antennae that transmit and receive Terahertz signals. The APD is a specialized photodiode capable of detecting very low light levels due to an internal gain phenomenon known as avalanching. All photodiode and THz devices are designed by our experienced engineering staff, and fabricated in state-of-the-art clean rooms. Some of our analog amplifiers are specified and tested by our engineering staff, designed by subcontractors and fabricated by outside suppliers. Our products include the following:

High Speed Optical Receivers (10Gb/s, 40Gb/s & 100Gb/s) packaged with InP, InAlAs, or GaAs PIN and/or APD photodiodes, electrical amplifiers and PIC's.

Packaged PIN and APD photodiodes in Si and III-V materials (InP, InAlAs, GaAs).

Packaged Si APD components, with and without thermo-electric coolers.

Packaged Si LAAPD components.

Packaged Si photodiodes with patented FILTRODE® technology integrating optical filters directly on photodiode chips.

Terahertz Systems & subsystems utilizing III-V materials for Terahertz transmitters &/or receivers.

#### Terahertz Technology

One of the high growth technologies we are pursuing is Terahertz based on our T-Ray® product platforms. THz is a region of the electromagnetic spectrum that lies between microwave and infrared waves and is in the early stages of adoption. While microwaves and infrared waves have been explored and commercialized for decades, THz waves are in the early stages of being explored and commercialized due to the fact that they have historically been very difficult to generate and detect. Recent advances in femtosecond lasers and ultra-fast semiconductor and electro-optic devices combined with fiber-optic packaging technologies have enabled the development of practical T-Ray® instrumentation for the research market with increasing adoption in the industrial, military and aerospace markets as a result of our growing group of value added resellers' application and market development efforts. THz can be used to "look" through and beneath materials with high 2-dimensional (2-D) and 3-dimensional (3-D) spatial resolution roughly equivalent to the resolution of the human eye or better. It can also uniquely identify the chemical composition of many hidden or subsurface objects using non-ionizing radiation, which is not harmful to humans at the power levels commonly used today. THz imaging and spectroscopy market applications include industrial quality control through non-destructive testing (including aerospace and pharmaceutical markets); homeland security and defense screening of people, packages and bags for weapons and weapons of mass destruction; medical imaging and other scientific applications.

We have had significant Terahertz technology and product development since 1997, resulting in 112 patents or patents pending to date. In 2001, we sold the first commercial THz product, the T-Ray2000®, as a laboratory bench top

instrument for application development with spectroscopy and imaging capabilities targeted at the research and development and off-line diagnostic markets. In 2004, we sold the first T-Ray® Manufacturing Inspection System (QA1000) for on-line, real-time inspection to NASA for the space shuttle fuel tank inspection in the Return to Flight Program. In March 2008, we shipped our next generation THz imaging and spectroscopy system (T-Ray 4000®). The T-Ray 4000® is significantly smaller, lighter, and more powerful than previous THz generations and incorporates significant technological advancements. The system weighs 55 pounds and is the size of a briefcase, which is a significant reduction from the 800 pound refrigerator size QA1000. In 2012, we introduced our fifth generation product called T-Gauge®, which weighs 35 pounds. This product is targeted at the industrial, NDT and process quality control market. We have established and continue to develop a value added reseller (VAR) network to accelerate adoption in vertical industrial markets, initially targeting the nuclear gauge replacement market. To date, we have entered into VAR agreements with three established industrial process and quality control companies.



In November 2010, we entered into a development agreement with In-Q-Tel Inc. (In-Q-Tel) to develop and deliver three (3) Anomaly Detection Systems for evaluation purposes by the Transportation Security Administration (TSA). In 2012, we introduced the Saf-T-Chek ADS™ (Anomaly Detection System), in satisfaction of the In-Q-Tel contract. The Saf-T-Chek ADS™ systems have been recommended for inclusion on the Standardized Equipment List, for ultimate inclusion into the Qualified Products List (QPL) for use in non-airport screening (Intermodal). Further development will be required on automatic detection algorithms to make the product suitable for passenger screening.

In 2009, we entered into a multi-year application development contracts with the U.S. Air Force for use of the T-Ray® product platform for automated and manual manufacturing quality control on the next generation joint strike fighter (F-35). Contract options totaling \$3 million to deliver and demonstrate systems on the manufacturing floor were exercised in the fourth quarter of our fiscal 2012 and the efforts are expected to be completed in the first half of our fiscal 2014.

#### Markets

Our products serve customers in a variety of global markets, typically North America, Asia, Europe and Australia. The target markets and applications served by us are as follows:

##### Military:

Space  
Defense

##### Industrial/NDT:

Manufacturing, process and quality control  
Test and measurement

##### Medical:

Diagnostic & Monitoring  
Ophthalmic Equipment  
Medical Imaging

##### Telecommunications:

Long Haul/Metro Transmission  
Enterprise Access Transmission  
Comtest  
Government

##### Homeland Security:

Baggage/Cargo Scanning  
Passenger Screening

## Raw Materials

Our principal raw materials used in the manufacture of our products are silicon and III-V material (InP, GaAs) wafers, chemicals, gases and metals used in processing wafers, gold wire, solders, electronic components, high speed specialized semiconductor amplifiers, PIC's, and a variety of packages and substrates, including metal, printed circuit board, flex circuits, ceramic and plastic packages. All of these raw materials can be obtained from several suppliers. However, we depend on suppliers whose components have been qualified into our products and who could disrupt our business if they stop, decrease or delay shipments or if the components they ship have quality or consistency issues. From time to time, particularly during periods of increased industry-wide demand, silicon wafers, III-V wafers (InP, GaAs), certain metal packages and other materials have been in short supply. During fiscal 2012 and 2013, we or our customers were adversely affected by supply chain disruptions caused by the natural disaster that occurred in Japan and Thailand. In the second half of fiscal 2013, we were affected by limitations in supply of a critical component used in our 100G HSOR product which limited our revenues. In the press release dated June 7, 2013, we announced that these supplier bottlenecks had been alleviated. In the future, any significant increase in lead times or shortage in supply on critical components could reduce future growth.

## Research and Development

Since our inception in June 1988, we have incurred material research and development (R&D) expenses, with the intent of commercializing these investments into profitable new standard and custom product offerings. During the fiscal years ended in 2013 and 2012, research and development expenses were \$5.7 million and \$6.5 million, respectively, which we believe was adequate to maintain the necessary investment in our future growth platforms. We will continue to pursue government funded, as well as internally funded, research and development projects when they are in support of the our development objectives. During fiscal years 2013 and 2012, approximately \$2.2 million and \$1.8 million of our R&D spending was government funded, respectively.

As we begin the new 2014 fiscal year, the following research and development projects are currently underway:

HSOR - next generation photodiodes and high-speed optical receivers for the 10G, 40G and 100G telecommunications market:

- o Next generation 100G DP-QPSK coherent receivers for long haul and metro markets.
  - o 1st generation 100G NRZ APD's for the enterprise/access market.
  - o 4th generation integrated 40G NRZ for the enterprise/access market.
  - o 1st generation 10G APD for the fiber to the premises (FTTx)
  - o 1st generation APD for battlefield communications

Terahertz –applications and enhancements to support market penetration.

o Application and software development utilizing the T-Gauge®, product platform for industrial quality and process control markets.

- o T-Gauge®, platform cost reduction initiatives.
- o Next generation subsystems to support various vertical market requirements.

Custom Optoelectronics –PIN and subassembly developments.

- o Custom PIN photodiode subassembly focused in the test and measurement currency validation market.
  - o Next generation custom PIN photodiode for an agricultural application.

## Environmental Regulations

The photonics industry, as well as the semiconductor industry in general, is subject to governmental regulations for the protection of the environment, including those relating to air and water quality, solid and hazardous waste handling, and the promotion of occupational safety. Various federal, state and local laws and regulations require that we maintain certain environmental permits. We believe we have obtained all necessary environmental permits required to conduct our manufacturing processes. Changes in the aforementioned laws and regulations or the enactment of new laws, regulations or policies could require increases in operating costs and additional capital expenditures and could possibly entail delays or interruptions of operations.

## Backlog and Customers

Our sales are made primarily pursuant to standard purchase orders for delivery of products. A substantial portion of our revenues are derived from sales to OEMs pursuant to individual purchase orders with short lead times. However, by industry practice, orders may be canceled or modified at any time. Accordingly, we do not believe that the backlog of undelivered product under these purchase orders is a meaningful indicator of our future financial performance. When customers cancel an order, they are responsible for all finished goods; all incurred costs, direct and indirect, as well as a reasonable allowance for anticipated profits. No assurance can be given that we will receive these amounts after cancellation.

Customers normally purchase our products and incorporate them into products that they in turn sell in their own markets on an ongoing basis. As a result, our sales are dependent upon the success of our customers' products and our future performance is dependent upon our success in finding new customers and receiving new orders from existing customers.

## Marketing

In the United States and Canada, we market our products through a mix of technical sales engineers, salesmen, value added resellers, and independent sales representatives. International sales, including Europe, the Middle East, Far East and Asia, are conducted directly by the technical sales engineers and at times in conjunction with foreign distributors, value added resellers and representatives. Our products are primarily sold as components or sub-assemblies to OEMs and we market our products and capabilities through industry specific channels, including the Internet, industry trade shows, and in print through trade journals.

## Competition

In our target markets, we compete with different companies in each of our three major product platforms: custom optoelectronic, high-speed optical receiver and THz systems. We believe that our principal competitors for sales of custom optoelectronic products are small and medium size private companies and medium size public companies such as First Sensor, Excelitas, a division of Illinois Tool Works (ITW), and a division of OSI Systems (OSIS). In the high-speed optical receiver market, certain product lines compete against some mix of the following competitors; JDS Uniphase (JDSU), Neophotonix (NPTN), U2T, Avago, a division of Fujitsu (FOC), a division of Nippon Electric (NEL) and several other smaller companies. Because the THz product offering includes developing technology applications and markets, we believe the competition is mainly from several early stage small private companies supported by research institutions like the Fraunhofer Institute in Germany, Advantest and the use of alternative technologies, mainly nuclear gauges that are bundled with other process control equipment within divisions of several larger public companies.

Because we specialize in devices requiring a high degree of engineering expertise to meet the requirements of specific applications, we generally do not compete with other large United States, European or Asian manufacturers of standard "off the shelf" optoelectronic components or silicon photodetectors.

## Proprietary Technology

We utilize proprietary design rules and processing steps in the development and fabrication of our PIN and APD photodiodes, THz transmitters and receivers, fiber-coupled THz subsystems/systems, and THz applications. We have a significant number of patents pending and own the following patents and registered trademarks:



Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Patents and Trademarks Issued in Fiscal 2013

Patent/Trademark #	Title	Issue Date
4980238	High Speed Ingaas Photoconductive Device	Apr-12
5021888	Enhanced Photodetector	Jun-12
5022032	Pin Photodetector	Jun-12
4,218,098	Trademark for T-Gauge	Oct-12
5166024	Terahertz Imaging System for Examining Articles	Dec-12
8,390,910	Picosecond Optical Delay	Mar-13

Patents and Trademarks Issued in Prior Years

Patent/Trademark #	Title	Issue Date
2474560	Planar Avalance Photodiode	Mar-12
1131650	Pin Photodetector	Mar-12
200580041877.4	HIGH SPEED INGASS PHOTOCONDUCTIVE DEVICE (CHINA)	Apr-11
1,034,433	PRECISION FIBER ATTACHMENT (SOUTH KOREA)	May-11
HK1106330	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (HONG KONG)	May-11
4,755,341	HIGHLY DOPED P-TYPE CONTACT FOR HIGH SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (JAPAN)	Jun-11
200580023058.7	TERAHERTZ IMAGING SYSTEM FOR EXAMINING ARTICLES (CHINA)	Jun-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (SOUTH KOREA)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (AUSTRIA)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (GR BRITAIN)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (FRANCE)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (ITALY)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (NETHERLANDS)	Jul-11
2,025,077	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (SPAIN)	Jul-11
602007015950.4	DISPERSION & NONLINEAR COMPENSATOR FOR OPTICAL DELIVERY FIBER (GERMANY)	Jul-11
2,467,400	FOCUSING FIBER OPTIC (CANADA)	Sep-11
4,833,478	METHOD & APPARATUS TO MONITOR PHASE CHANGES IN MATTER WITH TERAHERTZ RADIATION (JAPAN)	Sep-11
4,938,221	PLANAR AVALANCHE PHOTODIODE	Mar-12
142,195	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (US)	Apr-05
660,471	HIGHLY-DOPED P-TYPE CONTRACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (KOREA)	Apr-06
726,387	TRADEMARK APPLICATION FOR T-RAY (CANADA)	Oct-08
765,715	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (AUSTRIA)	Jan-04
766,174	ENHANCED PHOTODETECTOR (KOREA)	Oct-07
809,655		Feb-08

	METHOD AND APPARATUS TO MONITOR PHASE CHANGES IN MATTER WITH TERAHERTZ RADIATION (KOREA)	
811,365	PLANAR AVALANCHE PHOTODIODE (KOREA)	Feb-08
817,638	FOCUSING FIBER OPTIC (KOREA)	Mar-08
934,665	TRADEMARK APPLICATION FOR T-RAY TRADEMARK (MADRID PROTOCOL)	Aug-07
934,665	TRADEMARK APPLICATION FOR T-RAY TRADEMARK (AUSTRALIA)	Aug-07
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (EUROPE)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (AUSTRIA)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (FRANCE)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (GERMANY)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (ITALY)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (NETHERLANDS)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (SPAIN)	Oct-10
1,090,282	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GERNERATION AND DETECTION SYSTEM (GREAT BRITAIN)	Oct-10
1,113,520	PLANAR AVALANCHE PHOTODIODE (HONG KONG)	Mar-10
1,113,604	OPTICAL DELAY (HONG KONG)	Jan-11
1,115,504	PICOSECOND OPTICAL DELAY (HONG KONG)	Nov-09
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (EP)	Oct-07
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (FRANCE)	Oct-07

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Patent/Trademark #	Title	Issue Date
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (GREAT BRITAIN)	Oct-07
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (ITALY)	Oct-07
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (GERMANY)	Oct-07
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (EP)	Aug-06
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (AUSTRIA)	Aug-06
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (FRANCE)	Aug-06
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (ITALY)	Aug-06
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (GREAT BRITAIN)	Aug-06
1,454,173	FOCUSING FIBER OPTIC (EP)	May-09
1,454,173	FOCUSING FIBER OPTIC (FRANCE)	May-09
1,454,173	FOCUSING FIBER OPTIC (GERMANY)	May-09
1,454,173	FOCUSING FIBER OPTIC (ITALY)	May-09
1,454,173	FOCUSING FIBER OPTIC (NETHERLANDS)	May-09
1,454,173	FOCUSING FIBER OPTIC (GREAT BRITAIN)	May-09
1,570,306	PRECISION FIBER ATTACHMENT (EP)	Aug-08
1,570,306	PRECISION FIBER ATTACHMENT (ITALY)	Aug-08
1,570,306	PRECISION FIBER ATTACHMENT (FRANCE)	Aug-08
1,570,306	PRECISION FIBER ATTACHMENT (GREAT BRITAIN)	Aug-08
1,570,306	PRECISION FIBER ATTACHMENT (AUSTRIA)	Aug-08
1,570,306	PRECISION FIBER ATTACHMENT (GERMANY)	Aug-08
1,794,558	PICOSECOND OPTICAL DELAY (EP)	Sep-09
1,794,558	PICOSECOND OPTICAL DELAY (FRANCE)	Sep-09
1,794,558	PICOSECOND OPTICAL DELAY (GERMANY)	Sep-09
1,794,558	PICOSECOND OPTICAL DELAY (ITALY)	Sep-09
1,794,558	PICOSECOND OPTICAL DELAY (GREAT BRITAIN)	Sep-09
1,794,558	PICOSECOND OPTICAL DELAY (NETHERLANDS)	Sep-09
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (AUSTRIA)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (FRANCE)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (GERMANY)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (ITALY)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (NETHERLANDS)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (SPAIN)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (GREAT BRITAIN)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (HONG KONG)	Jan-11
1,820,219	HIGH SPEED INGAAS PHOTOCONDUCTIVE DEVICE (EUROPE)	Jan-11
1,963,580	PICOMETRIX TRADEMARK	Mar-96
2,345,153	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (CANADA)	Mar-04
2,350,065	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GENERATION AND DETECTION SYSTEM (CANADA)	Jan-11
2,396,695	METHOD AND APPARATUS TO MONITOR PHASE CHANGES IN MATTER WITH TERAHERTZ RADIATION (CANADA)	Apr-10
3,561,696	TRADEMARK – T-RAY	Jan-09
3,561,697	TRADEMARK – T-RAY 2000	Jan-09



Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

3,561,698	TRADEMARK – T-RAY 4000	Jan-09
4,180,824	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (JAPAN)	Sept-08
4,436,915	PRECISION FIBER ATTACHMENT (JAPAN)	Jan-10
4,717,946	THIN LINE JUNCTION PHOTODIODE (by Predecessor Co.)	Jan-88
4,782,382	HIGH QUANTUM EFFICIENCY PHOTODIODE DEVICES (by Predecessor Co.)	Nov-88
5,021,854	SILICON AVALANCHE PHOTODIODE ARRAY	Jun-91

Patent/Trademark #	Title	Issue Date
5,057,892	LIGHT RESPONSIVE AVALANCHE DIODE	Oct-91
5,146,296	DEVICES FOR DETECTING AND/OR IMAGING SINGLE PHOTOELECTRON	Sep-92
5,308,989	TRADEMARK APPLICATION FOR T-GAUGE (JAPAN)	Mar-10
5,311,044	AVALANCHE PHOTOMULTIPLIER TUBE	May-94
5,477,075	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Dec-95
5,757,057	LARGE AREA AVALANCHE ARRAY	May-98
5,801,430	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Sep-98
6,005,276	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Dec-99
6,029,988	COMPACT FIBER PIGTAILED TERAHERTZ IMAGING SYSTEM (GREAT BRITAIN)	Aug-06
6,111,299	ACTIVE LARGE AREA AVLANCHE PHOTODIODE ARRAY	Aug-00
6,262,465	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE	Jul-01
6,320,191	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GENERATION AND DETECTION SYSTEM	Nov-01
6,816,647	COMPACT FIBER PIGTAILED TERAHERTZ IMAGING SYSTEM	Nov-04
6,849,852	SYSTEM AND METHOD FOR MONITORING CHANGES IN STATE OF MATTER WITH TERAHERTZ RADIATION	Feb-05
6,936,821	AMPLIFIED PHOTOCONDUCTIVE GATE	Aug-05
7,039,275	FOCUSING FIBER OPTIC	May-06
7,078,741	HIGH-SPEED ENHANCED RESPONSIVITY PHOTO DETECTOR	Jul-06
7,263,266	PRECISION FIBER ATTACHMENT	Aug-07
7,348,607	PLANAR AVALANCHE PHOTODIODE	Mar-08
7,348,608	PLANAR AVALANCHE PHOTODIODE	Mar-08
7,449,695	TERAHERTZ IMAGING SYSTEM FOR EXAMINING ARTICLES	Nov-08
7,468,503	PIN PHOTODETECTOR	Dec-08
7,572,021	TRADEMARK APPLICATION FOR T-GAUGE (CHINA)	Feb-11
8,452,427	TRADEMARK APPLICATION FOR T-GAUGE	Mar-10
8,493,256	TRADEMARK APPLICATION FOR T-RAY 4000	Feb-10
602005016704.8	PICOSECOND OPTICAL DELAY (GERMANY)	Sep-09
602005026049.8	HIGH SPEED INGASS PHOTOCONDUCTIVE DEVICE (GERMANY)	Jan-11
ZL02825106.7	FOCUSING FIBER OPTIC (CHINA)	Apr-09
ZL03803039.X	ENHANCED PHOTODETECTOR (CHINA)	Apr-09
ZL2003801087.X	PRECISION FIBER ATTACHMENT (CHINA)	Mar-09
ZL200480015226	PIN PHOTODETECTOR (JAPAN)	Jun-09
ZL200480043236	PLANAR AVALANCHE PHOTODIODE (CHINA)	May-09
ZL200580033244	PICOSECOND OPTICAL DELAY (CHINA)	Jan-10
HK1085841	ENHANCED PHOTODETECTOR (HONG KONG)	Dec-09
HK1086340	FOCUSING FIBER OPTIC (HONG KONG)	Feb-10
HK1090282	PIN PHOTODETECTOR (HONG KONG)	Oct-10
HK1095637	PRECISION FIBER ATTACHMENT (HONG KONG)	Apr-10
HK1097957	PIN PHOTODETECTOR (HONG KONG)	Mar-10

There can be no assurance that any issued patents will provide us with significant competitive advantages, or that challenges will not be instituted against the validity or enforceability of any patent, or, if instituted, that such challenges will not be successful. The cost of litigation to uphold the validity and to prevent the infringement of a patent could be substantial. Furthermore, there can be no assurance that our technology will not infringe on patents or

rights owned by others, the licenses to which might not be available to us at all or on reasonable terms. Based on limited patent searches, contacts with others knowledgeable in the field of our technology, and a review of the published materials, we believe that our competitors hold no patents, licenses or other rights to technology which would preclude us from pursuing our intended operations.

In some cases, we may rely on trade secrets to protect our innovations. There can be no assurance that trade secrets will be established, that secrecy obligations will be honored or that others will not independently develop similar or superior technology. To the extent that consultants, key employees or other third parties apply technological information independently developed by them or by others to our projects, disputes might arise as to the proprietary rights to such information which may not be resolved in our favor.

## Employees

As of May 31, 2013, we had approximately 134 full time employees including 4 officers. Included are 37 engineering and development personnel, 10 sales and marketing personnel, 72 operations personnel, and 15 general and administrative personnel. We may, from time to time, engage personnel to perform consulting services and to perform research and development under third party funding. In certain cases, the cost of such personnel may be included in the direct cost of the contract rather than in payroll expense. None of our employees are covered by a collective bargaining agreement. We believe our relations with our employees are good.

## Silonex Net Asset Purchase

On March 1, 2013, the Company, through its newly formed Advanced Photonix Canada, Inc. subsidiary, acquired substantially all the operating assets and assumed certain liabilities of Silonex's business for \$900,000 in cash. Silonex designed, manufactured and marketed optoelectronic devices and sensor solutions for 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 the acquisition of the Silonex business broadened the Company's supply channel due to Silonex's existing relationships with Chinese manufacturers.

## Item 1A. Risk Factors

Investing in our Class A Common Stock involves a high degree of risk and uncertainty. You should carefully consider the risks and uncertainties described below before investing in our Class A Common Stock. Our business, prospects, financial condition and results of operations could be adversely affected due to any of the following risks. In that case, the value of our Class A Common Stock could decline, and you could lose all or part of your investment.

### Risks Relating to Our Business

We are subject to the cyclical nature of the markets in which we compete and any future downturn may reduce demand for our products and revenue.

Many factors beyond our control affect our industry, including consumer confidence in the economy, interest rates, fuel prices and the general availability of credit. The overall economic climate and changes in Gross National Product growth has a direct impact on our customers and the demand for our products. We cannot be sure that our business will not be adversely affected as a result of an industry or general economic downturn.

Our customers may reduce capital expenditures and have difficulty satisfying liquidity needs because of continued turbulence in the U.S. and global economies, resulting in reduced sales of our products and harm to our financial condition and results of operations.

In particular, our historical results of operations have been subject to substantial fluctuations, and we may experience substantial period-to-period fluctuations in future results of operations. Any future downturn in the markets in which we compete could significantly reduce the demand for our products and therefore may result in a significant reduction

in revenue. It may also increase the volatility of the price of our common stock. Our revenue and results of operations may be materially and adversely affected in the future due to changes in demand from customers or cyclical changes in the markets utilizing our products.

In addition, the telecommunications industry, has, from time to time, experienced, and may again experience, a pronounced downturn. To respond to a downturn, many service providers may slow their capital expenditures, cancel or delay new developments, reduce their workforces and inventories and take a cautious approach to acquiring new equipment and technologies from original equipment manufacturers like us, which would have a negative impact on our business. Weakness in the global economy or a future downturn in the telecommunications industry may cause our results of operations to fluctuate from quarter-to-quarter and year-to-year, harm our business, and may increase the volatility of the price of our common stock.

We may be unable to obtain financing to fund ongoing operations and future growth.

During fiscal year 2013, our cash and cash equivalents decreased by \$2.6 million to \$619,000 as of March 31, 2013. Consequently, our current cash balance, potential future cash flows from operations, combined with our accessibility to cash and credit, may not be sufficient to allow us to finance ongoing operations or to make required investments for future growth if we are unable to achieve the 35% revenue growth that we have projected for fiscal year 2014. The past disruption in credit markets and our recent operating losses make it uncertain whether we will be able to continue to access the credit or capital markets when necessary or desirable.

In addition, 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. We cannot assure you that additional financing will be available on terms favorable to us, or at all. If, when required, adequate funds are unavailable, or are not available on acceptable terms, our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our products, or otherwise respond to competitive pressures could be significantly limited.

We have previously violated certain covenants under our loan agreements and may not be able to comply with covenants under our new credit facilities or other loans that we may obtain in the future.

On January 31, 2012, we entered into a loan and security agreement with Silicon Valley Bank (SVB) (and such other documents which constitute the SVB Loan Agreement) and terminated our prior loan agreement with The PrivateBank and Trust Company (the PrivateBank Loan Agreement). On October 25, 2012, we agreed with SVB to modify the initial covenants of the SVB Loan Agreement retroactively to the September 28, 2012 quarter end, to revise the interest rate structure, the covenants, and other terms of the SVB Loan Agreement. On February 8, 2013, we obtained a Second Amendment to the SVB Loan Agreement to again modify the financial covenants and to waive the restriction on granting any security interest to other parties to permit us to enter into the PFG Loan Agreement described below. We entered into a third amendment with SVB on or about February 28, 2013 to allow for the net asset purchase of the Silonex business for \$900,000 in cash.

The \$2.5 million secured debt agreement that we entered into with Partners for Growth III, L.P. (PFG) on February 8, 2013 and which was closed and funded on February 14, 2013 (the PFG Loan Agreement), is subordinated to SVB's senior secured position. We agreed to financial covenants of a minimum rolling three month negative adjusted EBITDA of \$750,000, measured each month from January to June 2013, negative adjusted EBITDA of \$300,000 for each month of July through October 2013, adjusted EBITDA of \$1 for each month of November 2013 through February 2014, and adjusted EBITDA of \$100,000 measured each month thereafter subject to reset based on mutual agreement once a fiscal year 2015 budget is submitted to the lenders. The Company is restricted under the agreement from borrowing more than \$1.5 million on the SVB line of credit for the first six months of the PFG Loan Agreement.

While we are currently in compliance with both the SVB Loan Agreement and the PFG Loan Agreement, we have breached covenants under our prior loan agreements, including the Private Bank Loan Agreement. In light of this history, there can be no assurance that we will not have similar problems under our current credit facilities, and we can provide no assurance that we will be able to obtain waivers or amendments if future covenant violations of the terms of our current loans occur. Failure to obtain such waivers or amendments, if necessary, could materially affect our business, financial condition and results of operations.

Any impairment of goodwill and other intangible assets, could negatively impact our results of operations.

As of March 31, 2013 and March 31, 2012, our consolidated balance sheet 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. Our goodwill is subject to an impairment test on an annual basis and is also tested whenever events and circumstances indicate that goodwill may be impaired. Any goodwill value in excess of fair value as determined in an impairment test must be written off in the period of determination.

Intangible assets (other than goodwill) are generally amortized over the useful life of such assets. The carrying value of the intangible assets aggregated to \$3.7 million as of March 31, 2013. From time to time, we may acquire, or make an investment in, a business which may require us to record goodwill based on the purchase price and the value of the acquired tangible and intangible assets. We may subsequently experience unforeseen issues with such business which adversely affect the anticipated returns of the business or value of the intangible assets and trigger an evaluation of the recoverability of the recorded goodwill and intangible assets for such business. Future determinations of significant write-offs of goodwill or intangible assets as a result of an impairment test or any accelerated amortization of other intangible assets could have a negative impact on our results of operations.

Customer acceptance of our products is dependent on our ability to meet changing requirements, and any decrease in acceptance could adversely affect our revenue.

Customer acceptance of our products is significantly dependent on our ability to offer products that meet the changing requirements of our customers, including telecommunication, military, medical and industrial corporations, as well as government agencies. Any decrease in the level of customer acceptance of our products could have a material adverse affect on our business.

Our products must meet exacting specifications, and defects and failures may occur, which may cause customers to return or stop buying our products.

Our customers generally establish demanding specifications for quality, performance and reliability that our products must meet. However, our products are highly complex and may contain defects and failures when they are first introduced or as new versions are released. Our products are also subject to rough environments as they are integrated into our customer products for use by the end customers. If defects and failures occur in our products, we could experience lost revenue, increased costs, including warranty expense and costs associated with customer support, delays in or cancellations or rescheduling of orders or shipments, product returns or discounts, diversion of management resources or damage to our reputation and brand equity, and in some cases consequential damages, any of which would harm our operating results. In addition, delays in our ability to fill product orders as a result of quality control issues may negatively impact our relationship with our customers. We cannot assure you that we will have sufficient resources, including any available insurance, to satisfy any asserted claims.

Rapidly changing standards and regulations could make our products obsolete, which would cause our revenue and results of operations to suffer.

We design our products to conform to our customer's requirements and our customer's systems may be subject to regulations established by governments or industry standards bodies worldwide. Because certain of our products are designed to conform to current specific industry standards, if competing or new standards emerge that are preferred by our customers, we would have to make significant expenditures to develop new products. If our customers adopt new or competing industry standards with which our products are not compatible, or the industry groups adopt standards or governments issue regulations with which our products are not compatible, our existing products would become less desirable to our customers and our revenue and results of operations would suffer.

If any of our products are found to have, or are suspected to have, security vulnerabilities, we could incur significant costs and irreparable damage to our reputation.

If any of our products are found to have significant security vulnerabilities, then we may need to dedicate engineering and other resources to eliminating such vulnerabilities and to repairing or replacing products already sold or licensed to our customers. In addition, our customers and potential customers could perceive our products as unreliable, making it more difficult for us to sell our products.

Our inability to find new customers or retain existing customers could have a material adverse affect on our business.

Customers normally purchase our products and incorporate them into products that they, in turn, sell in their own markets on an ongoing basis. As a result, our sales are dependent upon the success of our customers' products and our future performance is dependent upon our success in finding new customers and receiving new orders from existing customers.



In several of our markets, quality and/or reliability of our products are a major concern for our customers, not only upon the initial manufacture of the product, but for the life of the product. Many of our products are used in remote locations for higher value assembly, making servicing of our products unfeasible. Any failure of the quality and/or reliability of our products could have an adverse affect on our business.

If our customers do not qualify our products or if their customers do not qualify their products, our results of operations may suffer.

Most of our customers do not purchase our products prior to qualification of our products and satisfactory completion of factory audits and vendor evaluation. Our existing products, as well as each new product, must pass through varying levels of qualification with our customers. In addition, because of the rapid technological changes in our market, a customer may cancel or modify a design project before we begin large-scale manufacturing and receive revenues from the customer. It is unlikely that we would be able to recover the expenses for cancelled or unutilized custom design projects. It is difficult to predict with any certainty whether our customers will delay or terminate product qualification or the frequency with which customers will cancel or modify their projects. Any such delay, cancellation or modification could have a negative effect on our results of operations.

In addition, once a customer qualifies a particular supplier's product or component, these potential customers design the product into their system, which is known as a design-in win. Suppliers whose products or components are not designed in are unlikely to make sales to that customer until at least the adoption of a future redesigned system. Even then, many customers may be reluctant to incorporate entirely new products into their new systems, as doing so could involve significant additional redesign efforts and increased costs. If we fail to achieve design-in wins in our potential customers' qualification processes, we will likely lose the opportunity for significant sales to those customers for a lengthy period of time.

If the end user customers that purchase systems from our customers fail to qualify or delay qualifications of any products sold by our customers that contain our products, our business could be harmed. The qualification and field testing of our customers' systems by end user customers is long and unpredictable. This process is not under our control or that of our customers; and, as a result, the timing of our sales is unpredictable. Any unanticipated delay in qualification of one of our customers' products could result in the delay or cancellation of orders from our customers for products included in their equipment, which could harm our results of operations.

Our sales to overseas markets expose us to additional, unpredictable risks which could have a material adverse affect on our business and expose us to liability under the Foreign Corrupt Practices Act.

A portion of our sales are being derived from overseas markets. These international sales are primarily focused in Asia, Europe and the Middle East. These operations are subject to unpredictable risks that are inherent in operating in foreign countries and which could have a material adverse affect on our business, including the following:

- foreign countries could change regulations or impose currency restrictions and other restraints;
- changes in foreign currency exchange rates and hyperinflation or deflation in the foreign countries in which we operate;
- exchange controls;
- some countries impose burdensome tariffs and quotas;
- political changes and economic crises may lead to changes in the business environment in which we operate;
- international conflict, including terrorist acts, could significantly impact our financial condition and results of operations; and
- economic downturns, political instability and war or civil disturbances may disrupt distribution logistics or limit sales in individual markets.

In addition, we utilize third-party distributors to act as our representative for the geographic region that they have been assigned as well as value added resellers that have territorial restrictions. Sales through these channels represent approximately 13% of total revenue in fiscal 2013. Significant terms and conditions of distributor agreements include FOB source, net 30 days payment terms, with no return or exchange rights, and no price protection. Since the product title transfers to the distributor at the time of shipment, the products are not considered inventory on consignment. Our success is dependent on these distributors finding new customers and receiving new orders from existing customers.

We are subject to the Foreign Corrupt Practice Act (FCPA) and other laws that prohibit improper payments to foreign governments and their officials for the purpose of obtaining or retaining business. Our activities in our overseas markets create the risk of unauthorized payments or offers of payments by one of our employees, consultants, sales agents or distributors, because these parties are not always subject to our control. While it is our policy to implement safeguards to discourage these practices, our existing safeguards and any future improvements may prove to be less than effective, and our employees, consultants, sales agents or distributors may engage in conduct for which we might be held responsible. Violations of the FCPA may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition. In addition, certain governmental authorities may seek to hold us liable for successor liability FCPA violations committed by

companies in which we invest or that we acquire.

15

---

Customer demand is difficult to accurately forecast and, as a result, we may be unable to optimally match production with customer demand, which could adversely affect our business and financial results.

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, and inventory levels, component procurement commitments, personnel needs and other resource requirements, based on our estimates of customer requirements. The short-term nature of commitments by many of our customers and the possibility of unexpected changes in demand for their products reduce our ability to accurately estimate future customer requirements. On occasion, customers may require rapid increases in production, which can strain our resources, cause our manufacturing to be negatively impacted by materials shortages, necessitate higher or more restrictive procurement commitments, increase our manufacturing yield loss and scrapping of excess materials, and reduce our gross margin. We may not have sufficient capacity at any given time to meet the volume demands of our customers, or one or more of our suppliers may not have sufficient capacity at any given time to meet our volume demands. Conversely, a downturn in the markets in which our customers compete can cause, and in the past have caused, our customers to significantly reduce or delay the amount of products ordered from us or to cancel existing orders, leading to lower utilization of our facilities. Because many of our costs and operating expenses are relatively fixed, reduction in customer demand due to market downturns or other reasons would have a material adverse effect on our gross margin, operating income and cash flow.

Customer orders and forecasts are subject to cancellation or modification at any time which could result in higher manufacturing costs.

Our sales are made primarily pursuant to standard purchase orders for delivery of products. However, by industry practice, orders may be canceled or modified at any time. When a customer cancels an order, they are responsible for all finished goods, all costs, direct and indirect, incurred by us, as well as a reasonable allowance for anticipated profits. No assurance can be given that we will receive these amounts after cancellation. Furthermore, uncertainty in customer forecasts of their demands and other factors may lead to delays and disruptions in manufacturing, which could result in delays in product shipments to customers and could adversely affect our business.

Fluctuations and changes in our customers' demand are common in our industry. Such fluctuations, as well as quality control problems experienced in our manufacturing operations may cause us to experience delays and disruptions in our manufacturing process and overall operations and reduce our output capacity. As a result, product shipments could be delayed beyond the shipment schedules requested by our customers or could be cancelled, which would negatively affect our sales, operating income, strategic position at customers, market share and reputation. In addition, disruptions, delays or cancellations could cause inefficient production which in turn could result in higher manufacturing costs, lower yields and potential excess and obsolete inventory or manufacturing equipment. In the past, we have experienced such delays, disruptions and cancellations.

The markets for many of our products are characterized by changing technology which could cause obsolescence of our products, and we may incur substantial costs in delivering new products.

The markets for many of our products are characterized by changing technology, new product introductions and product enhancements, and evolving industry standards. The introduction or enhancement of products embodying new technology or the emergence of new industry standards could render existing products obsolete, and result in a write down to the value of our inventory, or result in shortened product life cycles. Accordingly, our ability to compete is in part dependent on our ability to continually offer enhanced and improved products.

The success of our new product offerings will depend upon several factors, including our ability to:

- accurately anticipate customer needs;
- innovate and develop new technologies and applications;
- successfully commercialize new technologies in a timely manner;
- price our products competitively and manufacture and deliver our products in sufficient volumes and on time; and
- differentiate our offerings from our competitors' offerings.

Some of our products are used by our customers to develop, test and manufacture their products. We therefore must anticipate industry trends and develop products in advance of the commercialization of our customers' products. In developing any new product, we may be required to make a substantial investment before we can determine the commercial viability of the new product. If we fail to accurately foresee our customers' needs and future activities, we may invest heavily in research and development of products that do not lead to significant revenues.

We depend on key in-house manufacturing capabilities and a loss of these capabilities could have an adverse affect on our existing operations and new business growth.

We depend on key in-house manufacturing equipment and assembly processes. We believe that these key manufacturing and assembly processes give us the flexibility and responsiveness to meet our customer delivery schedule and performance specification with a custom product. This value proposition is an important component of our offering to our customers. A loss of these capabilities could have an adverse affect on our existing operations and new business growth.

We depend upon an outside contract manufacturer for a portion of the manufacturing process for some of our products. Our operations and revenue related to these products could be adversely affected if we encounter problems with this contract manufacturer.

Many of our products are manufactured internally. However we also rely upon a contract manufacturer in China to produce the finished portion of some of our optoelectronic components. Our reliance on a contract manufacturer for these products makes us vulnerable to possible capacity constraints and reduced control over delivery schedules, manufacturing yields, manufacturing quality/controls and costs. If the contract manufacturer for our products were unable or unwilling to manufacture our products in required volumes and at high quality levels or to continue our existing supply arrangement, we would have to identify, qualify and select an acceptable alternative contract manufacturer or move these manufacturing operations to our internal manufacturing facilities. An alternative contract manufacturer may not be available to us when needed or may not be in a position to satisfy our quality or production requirements on commercially reasonable terms, including price. Any significant interruption in manufacturing our products would require us to reduce our supply products to our customers, which in turn would reduce our revenue, harm our relationships with the customers of these products and cause us to forego potential revenue opportunities.

Changes in the spending priorities of the federal government can materially adversely affect our business.

In fiscal 2013, approximately 25% of our sales were related to products and services purchased by federal government contractors. Our business relies upon continued federal government expenditures on defense, intelligence, homeland security, aerospace and other programs that we support. In fiscal 2013, our sales to federal government contractors decreased 24%. In addition, foreign military sales are affected by U.S. government regulations, regulations by purchasing foreign governments and political uncertainties in the U.S. and abroad. There can be no assurance that the federal government budget (including defense and military) will continue to grow or that sales of defense related items to foreign governments will continue at present levels. The terms of defense contracts with the U.S. government generally permit the government to terminate such contracts, with or without cause, at any time. Any unexpected

termination of a significant U.S. government contract with a military contractor to which we sell our products could have a material adverse affect on our business.

We face intense competition which could negatively impact our results of operations and market share.

We compete with a range of companies in our target markets, some of which have greater financial and marketing resources, and greater manufacturing capacity, as well as better-established relationships with customers, than we do. Because we specialize in custom high performance devices requiring a high degree of engineering expertise to meet the requirements of specific applications, we generally do not compete to any significant degree with other large United States, European or Pacific Rim high volume manufacturers of standard “off the shelf” optoelectronic components. We cannot assure you that we will be able to compete successfully in our markets against these or any future competitors.

We also face competition from some of our customers who evaluate our capabilities against the merits of manufacturing products internally. Due to the fact that such customers are not seeking to make a profit directly from the manufacture of these products, they may have the ability to manufacture competitive products at a lower cost than we would charge such customers. As a result, these customers may purchase less of our products and there would be additional pressure to lower our selling prices which, accordingly, would negatively impact our revenue and gross margin.

Intense competition in our markets could result in aggressive business tactics by our competitors, including aggressively pricing their products or selling older inventory at a discount. If our current or future competitors utilize aggressive business tactics, including those described above, demand for our products could decline, we could experience delays or cancellations of customer orders, or we could be required to reduce our sales prices.

Acquisition and alliance activities by our competitors could disrupt our ongoing business.

From time to time, our competitors acquire or enter into exclusive arrangements with companies with whom we do business or may do business in the future. Reductions in the number of partners with whom we may do business in a particular context may reduce our ability to enter into critical alliances on attractive terms or at all, and the termination of an existing alliance by a business partner may disrupt our operations.

Decreases in average selling prices of our products may increase operating losses and net losses, particularly if we are not able to reduce our expenses commensurately.

The market for optical components and subsystems continues to be characterized by declining average selling prices resulting from factors such as increased price competition among optical component and subsystem manufacturers, excess capacity, the introduction of new products and increased unit volumes as manufacturers continue to deploy network and storage systems. In the last two years, we have observed a significant decline of average selling prices, primarily in the telecommunications market. We anticipate that average selling prices will continue to decrease in the future in response to product introductions by our competitors or us, or in response to other factors, including price pressures from significant customers. In order to sustain profitable operations, we must, therefore, reduce the cost of our current designs or continue to develop and introduce new products on a timely basis that incorporate features that can be sold at higher average selling prices. Failure to do so could cause our sales to decline and operating losses to increase.

Our cost reduction efforts may not keep pace with competitive pricing pressures. To remain competitive, we must continually reduce the cost of manufacturing our products through design and engineering changes. We may not be successful in redesigning our products or delivering our products to market in a timely manner. We cannot assure you that any redesign will result in sufficient cost reductions enabling us to reduce the price of our products to remain competitive or positively contribute to operating results.

Shifts in our product mix may result in declines in gross profit.

Our gross profit margins vary among our product platforms, and are generally highest on our Terahertz products. Our overall gross profit has fluctuated from period to period as a result of shifts in product mix, the introduction of new products, decreases in average selling prices for older products and our ability to reduce product costs, and these fluctuations are expected to continue in the future. If our customers decide to buy more of our products with low gross profit margins and fewer of our products with high gross profit margins, our total gross profits could be adversely affected.





Environmental regulations could increase operating costs and additional capital expenditures and delay or interrupt operations.

The photonics industry, as well as the semiconductor industry in general, is subject to governmental regulations for the protection of the environment, including those relating to air and water quality, solid and hazardous waste handling, and the promotion of occupational safety. Various federal, state and local laws and regulations require that we maintain certain environmental permits. While we believe that we have obtained all necessary environmental permits required to conduct our manufacturing processes. If we were found to be in violation of these laws, we could be subject to governmental fines and liability for damages resulting from such violations.

Changes in the aforementioned laws and regulations or the enactment of new laws, regulations or policies could require increases in operating costs and additional capital expenditures and could possibly entail delays or interruptions of operations.

If we have insufficient proprietary rights or if we fail to protect those we have, our business would be materially harmed.

Our success and ability to compete is dependent in part on our proprietary technology. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality agreements and internal procedures, to establish and protect our proprietary rights. For example, we utilize proprietary design rules and processing steps in, among other things, the development and fabrication of our PIN photodiodes, APD photodiodes and our THz systems and sensors. In addition, our products rely upon over 203 patents or patents pending. There can be no assurance that any issued patents will provide us with significant competitive advantages, or that challenges will not be instituted against the validity or enforceability of any patent utilized by us, or, if instituted, that such challenges will not be successful. The cost of litigation to uphold the validity and to prevent the infringement of a patent could be substantial and could have a material adverse affect on our operating results. Furthermore, there can be no assurance that our technology, which we are constantly developing, will not infringe on patents or rights owned by others, licenses to which might not be available to us. While we have conducted limited due diligence and have conferred with experts with respect to, among other things, our proprietary materials which we incorporate into our PIN photodiodes, APD photodiodes and our THz systems and sensors, there can be no assurance that we have not overlooked or misinterpreted the status of the proprietary rights and intellectual property of others with respect to these products.

The steps we have taken to protect our intellectual property may not adequately prevent misappropriation or ensure that others will not develop competitive technologies or products. Other companies may be investigating or developing other technologies that are similar to our own. It is possible that patents may not be issued from any of our pending applications or those we may file in the future and, if patents are issued, the claims allowed may not be sufficiently broad to deter or prohibit others from making, using or selling products that are similar to ours. We do not own patents in every country in which we sell or distribute our products, and thus others may be able to offer identical products in countries where we do not have intellectual property protection. In addition, the laws of some territories in which our products are or may be developed, manufactured or sold, including Europe, Asia-Pacific or Latin America, may not protect our products and intellectual property rights to the same extent as the laws of the United States.

In some cases, we may rely on trade secrets to protect our innovations. There can be no assurance that trade secrets will be established, that secrecy obligations will be honored or that others will not independently develop similar or superior technology. To the extent that consultants, key employees or other third parties apply technological information independently developed by them or by others to our projects, disputes might arise as to the proprietary rights to such information which may not be resolved in our favor.

Pursuing infringers of our intellectual property rights can be difficult and costly.

Policing unauthorized use of our technology is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use or other infringement of our intellectual property rights. Pursuing infringers of our proprietary rights could result in significant litigation costs, and any failure to pursue infringers could result in our competitors utilizing our technology and offering similar products, potentially resulting in loss of a competitive advantage and decreased sales.

Despite our efforts to protect our proprietary rights, existing patent, copyright, trademark and trade secret laws afford only limited protection. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable, or may not protect our proprietary rights as fully as U.S. law. We seek to secure, to the extent possible, comparable intellectual property protections in China and other areas in which we operate. Moreover, the level of protection afforded by patent and other laws in countries such as China may not be comparable to that afforded in the U.S.

Protecting our intellectual property is difficult especially after our employees or our third-party contractors end their employment or engagement. We may have employees leave us and go to work for competitors. Attempts may be made to copy or reverse-engineer aspects of our products or to obtain and use information that we regard as proprietary. Accordingly, we may not be able to prevent misappropriation of our technology or prevent others from developing similar technology.

We may be involved in intellectual property disputes in the future, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the challenged technology.

Participants in the markets in which we sell our products have experienced litigation regarding patent and other intellectual property rights. Numerous patents in these industries are held by others, including our competitors. In addition, third parties may claim that we, or our products, operations or any products or technology we obtain from other parties are infringing their intellectual property rights; and we may be unaware of intellectual property rights of others that may cover some of our assets, technology and products.

Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources and may cause us to incur significant expenses. While we believe that our products do not infringe in any material respect upon the intellectual property rights of other parties and/or believe that a meritorious defense would exist with respect to any assertions to the contrary, we cannot be certain that our products would not be found to infringe upon the rights of others. Intellectual property claims against us could invalidate our proprietary rights and force us to do one or more of the following:

- obtain from a third party claiming infringement a license to sell or use the relevant technology, which may not be available on reasonable terms, or at all;
- stop manufacturing, selling, incorporating or using our products that use the challenged intellectual property;
- pay substantial monetary damages; or
- expend significant resources to redesign the products that use the technology and to develop non-infringing technology.

Any of these actions could result in a substantial reduction in our revenue and could result in losses over an extended period of time.

If we fail to obtain the right to use the intellectual property rights of others which are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.

In the past, we have licensed certain Terahertz technology for use in our products. In the future, we may choose, or be required, to license technology or intellectual property from third parties in connection with the development of our products. We cannot assure you that third-party licenses will be available to us on commercially reasonable terms, if at all. Our competitors may be able to obtain licenses, or cross-license their technology, on better terms than we can, which could put us at a competitive disadvantage. Also, we typically enter into confidentiality agreements with such third parties in which we agree to protect and maintain their proprietary and confidential information, including requiring our employees to enter into agreements protecting such information. There can be no assurance that the confidentiality agreements will not be breached by any of our employees or that such third parties will not make claims that their proprietary information has been disclosed.

We face strong competition for skilled workers which could result in our inability to attract and retain necessary personnel.

Our success depends in large part on our ability to attract and retain highly qualified scientific, technical, management, and marketing personnel. Competition for such personnel is intense and there can be no assurance that we will be able to attract and retain the personnel necessary for the development and operation of our business.

We may not be able to successfully integrate future acquisitions, which could result in our not achieving the expected benefits of the acquisition, the disruption of our business and an increase in our costs.

Our ability to continue to grow may depend upon identifying and successfully acquiring attractive companies, effectively integrating these companies, achieving cost efficiencies and managing these businesses as part of our company.

We may not be able to effectively integrate the acquired companies and successfully implement appropriate operational, financial and management systems and controls to achieve the benefits expected to result from these acquisitions. Our efforts to integrate these businesses could be affected by a number of factors beyond our control, such as regulatory developments, general economic conditions and increased competition. In addition, the process of integrating these businesses could cause the interruption of, or loss of momentum in, the activities of our existing business. The diversion of management's attention and any delays or difficulties encountered in connection with the integration of these businesses could negatively impact our business and results of operations. Further, the benefits that we anticipate from these acquisitions may not develop.

Future acquisitions could require us to issue additional indebtedness or equity.

If we were to undertake a substantial acquisition for cash, the acquisition would likely need to be financed in part through bank borrowings or the issuance of public or private debt. This acquisition financing would likely increase our ratio of debt to equity and adversely affect other leverage criteria. Under our existing SVB Loan Agreement and PFG Loan Agreement, we are required to obtain consent prior to incurring additional indebtedness beyond a certain dollar amount. We cannot assure you that the necessary acquisition financing would be available to us on acceptable terms if and when required. If we were to undertake an acquisition for equity, the acquisition may have a dilutive effect on the interests of the holders of our Common Stock.

We may be liable for damages based on product liability claims relating to defects in our products which might be brought against us directly, or against our customers in their end-use markets. Such claims could result in a loss of customers in addition to substantial liability in damages.

Our products are complex and undergo quality testing as well as formal qualification, both by our customers and by us. However, defects may occur from time to time. Our customers' testing procedures are limited to evaluating our products under likely and foreseeable failure scenarios and over varying amounts of time. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, our products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing or other unforeseen reasons. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. In addition, we may in certain circumstances honor warranty claims after the warranty has expired or for problems not covered by warranty in order to maintain customer relationships. Any significant product failure could result in lost future sales of the affected product and other products, as well as customer relations problems, litigation and damage to our reputation.

In addition, our products are typically embedded in, or deployed in conjunction with, our customers' products, which incorporate a variety of components, modules and subsystems and may be expected to interoperate with modules produced by third parties. As a result, not all defects are immediately detectable, and, when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems or loss of customers, all of which would harm our business.

Furthermore, many of our products may provide critical performance attributes to our customers' products that will be sold to end users who could potentially bring product liability suits in which we could be named as a defendant. The sale of these products involves the risk of product liability claims. If a person were to bring a product liability suit against one of our customers, this customer may attempt to seek contribution from us. A person may also bring a product liability claim directly against us. A successful product liability claim or series of claims against us in excess of our insurance coverage for payments, for which we are not otherwise indemnified, could have a material adverse effect on our financial condition or results of operations. We have acquired product liability coverage of up to \$2 million.

Our current and planned systems, procedures and controls may not be adequate to support our future operations.

The laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act and the rules adopted or proposed by the SEC, will result in increased costs to us as we evaluate the implications of any new rules and respond to their requirements. New rules could make it more difficult or more costly for us to comply with regulatory requirements, including our reporting obligations under the Securities Exchange Act of 1934 (the Exchange Act), and obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. We cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs to comply with any new rules and regulations, or if compliance can be achieved.

We have incurred significant losses in prior periods and may incur losses in the future.

We have incurred significant losses in prior periods. We recorded a net loss of \$4.4 million for the year ended March 31, 2013 and ended the period with an accumulated deficit of \$44.2 million. In addition, we recorded net losses of \$2.1 million and \$1.9 million for the years ended March 31, 2012 and 2011 respectively. There can be no assurance that we will have sufficient revenue growth to offset expenses or to achieve profitability in future periods.

We may dispose of or discontinue existing product lines and technology developments, which may adversely impact our future results.

On an ongoing basis, we evaluate our various product offerings and technology developments in order to determine whether any should be discontinued or, to the extent possible, divested. We cannot guarantee that we have correctly forecasted, or will correctly forecast in the future, the right product lines and technology developments to dispose or discontinue or that our decision to dispose of or discontinue various investments, products lines and technology developments is prudent if market conditions change. In addition, there are no assurances that the discontinuance of various product lines will reduce our operating expenses or will not cause us to incur material charges associated with such decision. Furthermore, the discontinuance of existing product lines entails various risks, including the risk that we will not be able to find a purchaser for a product line or the purchase price obtained will not be equal to at least the book value of the net assets for the product line. Other risks include managing the expectations of, and maintaining good relations with, our customers who previously purchased products from our disposed or discontinued product lines, which could prevent us from selling other products to them in the future. We may also incur other significant liabilities and costs associated with our disposal or discontinuance of product lines, including employee severance costs and excess facilities costs.

We are increasingly dependent on information technology systems and infrastructure.

We rely to a large extent on sophisticated information technology systems and infrastructure. The size and complexity of these systems make them potentially vulnerable to breakdown, malicious intrusion, and random attack. Likewise, confidentiality or data privacy breaches by employees or others with permitted access to our systems may pose a risk that trade secrets, personal information, or other sensitive data may be exposed to unauthorized persons or to the public. While we have invested in the protection of data and information technology, there can be no assurance that our efforts will prevent breakdowns or breaches in our systems that could adversely affect our business.

We may be unable to utilize our net operating loss carryforwards to reduce our income taxes, which could adversely affect our future financial results.

As of March 31, 2013, we had net operating loss, or NOL, carryforwards for U.S. federal and state tax purposes of \$23.1 million and \$5.5 million, respectively. As these net operating losses have not been utilized, a portion has begun

to expire in the current year. The utilization of the NOL and tax credit carryforwards are subject to a substantial limitation imposed by Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, and similar state provisions. We recorded deferred tax assets, net of valuation allowance, for the NOL carryforwards currently available after considering any existing Section 382 limitation. If we incur an additional limitation under Section 382, then the NOL carryforwards, as disclosed, could be reduced by the impact of any future limitation that would result in existing NOL carryforwards and tax credit carryforwards expiring unutilized.



## Risks Relating to Our Class A Common Stock

Our share price has been volatile in the past and may decline in the future.

Our Class A Common Stock (Common Stock) has experienced significant market price and volume fluctuations in the past and may experience significant market price and volume fluctuations in the future in response to factors such as the following, some of which are beyond our control:

- quarterly variations in our operating results;
- operating results that vary from the expectations of securities analysts and investors;
- changes in expectations as to our future financial performance, including financial estimates by securities analysts and investors;
- announcements of technological innovations or new products by us or our competitors;
- announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- changes in the status of our intellectual property rights;
- announcements by third parties of significant claims or proceedings against us;
- additions or departures of key personnel;
- future sales of our Common Stock or securities exercisable or convertible into shares of Common Stock;
- stock market price and volume fluctuations; and
- general economic conditions.

Stock markets often experience extreme price and volume fluctuations. Market fluctuations, as well as general political and economic conditions, such as a recession or interest rate or currency rate fluctuations or political events or hostilities in or surrounding the United States, could adversely affect the market price of our Common Stock.

In the past, securities class action litigation has often been brought against companies following periods of volatility in the market price of its securities. We may in the future be the target of similar litigation. Securities litigation could result in substantial costs and divert management's attention and resources both of which could have a material adverse affect on our business and results of operations.

Future sales of our Common Stock in the public market could lower our stock price, and conversion of our warrants or stock options and any additional capital raised by us may dilute your ownership.

We may sell additional shares of Common Stock in the future. In addition, holders of warrants or stock options may exercise their warrants or stock options to purchase shares of our Common Stock. We cannot predict the size of future issuances of our Common Stock or the effect, if any, that future issuances and sales of shares of our Common Stock will have on the market price of our Common Stock. Sales of substantial amounts of our Common Stock, including shares issued in connection with the exercise of the warrants or stock options, or the perception that such sales could occur, may adversely affect prevailing market prices for our Common Stock.

Shares eligible for public sale in the future could decrease the price of our Common Stock and reduce our future ability to raise capital.

Future sales of substantial amounts of our Common Stock in the public market could decrease the prevailing market price of our Common Stock, which would have an adverse affect on our ability to raise equity capital in the future.

We do not intend to pay dividends and are precluded from doing so while our SVB and PFG Loan Agreements are outstanding.

We have never declared or paid any cash dividends on our Common Stock and we are currently precluded from doing so while the SVB and PFG loan agreements are outstanding. Even in the event the SVB and PFG Loan Agreements are terminated, we currently intend to retain future earnings, if any, to finance operations and expand our business and, therefore, do not expect to pay any dividends in the foreseeable future.

Provisions in our organizational documents and Delaware law may delay or prevent a third party from acquiring us, which could decrease the value of our stock.

Our Board of Directors has the authority to issue preferred stock and to determine the price, rights, preferences, privileges and restrictions, including voting and conversion rights, of those shares without any further vote or action by the stockholders. The issuance of our preferred stock could have the effect of making it more difficult for a third party to acquire us. In addition, we are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which could also have the effect of delaying or preventing our acquisition by a third party. Further, certain provisions of our Certificate of Incorporation and bylaws could delay or make more difficult a merger, tender offer or proxy contest, which could adversely affect the market price of our common stock, including:

- not providing for cumulative voting in the election of directors;
- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

These and other provisions in our amended and restated certificate of incorporation, our amended and restated bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our common stock in the future and result in the market price being lower than it would be without these provisions.

#### Item 2. Properties

We lease all of our executive offices, research, marketing and manufacturing facilities under non-cancellable operating leases. At March 31, 2013, those leases consisted of approximately 96,000 square feet in three facilities. The lease for our facility located in Camarillo, California consisting of approximately 40,000 square feet was amended in December 2008 and is now leased through February 2014. In January 2010, our wholly owned subsidiary, Picometrix LLC, entered into a "Fourth Addendum & Extension Agreement" for our lease of the Ann Arbor, MI facility, which extended the lease to May 31, 2021. The 50,000 sq. ft. facility houses our research, development and manufacturing operations for the terahertz and high-speed optical receiver product platforms, corporate headquarters, and the semiconductor micro-fabrication facility for all three of our product platforms. The state-of-the-art facility was completed in 2001 and was designed to meet our unique requirements, including InP and GaAs material growth, semiconductor micro-fabrication, and precision hybrid assembly and high-speed testing. In addition, the facility includes an industry leading HSOR laboratory and three secure user laboratories for collaborative terahertz application development. We also assumed the current lease of Silonex in Montreal, Canada which expires in May 2014, in connection with the acquisition of substantially all of its net operating assets. The approximate 6,000 square feet of space includes research, administrative and manufacturing space.

#### Item 3. Legal Proceedings

None

#### Item 4. Mine Safety Disclosures

Not Applicable

## PART II

## Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

## Stock Performance Graph

As a smaller reporting company, we are not required to prepare a stock performance graph and have elected not to do so this year.

## Stockholder Information

Our Class A Common Stock is traded on the NYSE MKT exchange under the symbol "API". As of June 21, 2013, we had 103 holders of record for the Class A Common Stock (including shares held in street name), representing approximately 4,701 beneficial owners of the Class A Common Stock.

## Quarterly Stock Market Data

The following table sets forth the high and low closing prices of our Class A Common Stock by quarter for fiscal years 2013 and 2012.

## Common Stock Price

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
	2013	2012	2013	2012	2013	2012	2013	2012
Common Stock <sup>1</sup>								
High	\$ 0.77	\$ 1.96	\$ 0.76	\$ 1.30	\$ 0.67	\$ 1.03	\$ 0.80	\$ 0.88
Low	\$ 0.51	\$ 1.36	\$ 0.52	\$ .90	\$ 0.40	\$ .53	\$ 0.41	\$ 0.58

<sup>1</sup> Price ranges on the NYSE MKT.

We have never paid any cash dividends on our capital stock and are currently precluded from doing so while the SVB and PFG loan agreements are outstanding. Even in the event the SVB and PFG Loan Agreements are terminated, we intend to retain earnings, if any, for use in our business and do not anticipate that any funds will be available for the payment of cash dividends on our outstanding shares in the foreseeable future.

#### Repurchases of Equity

We have made no repurchases of our common stock during our fourth fiscal quarter ended March 31, 2013.

#### Item 6. Selected Financial Data

Advanced Photonix, Inc. is a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and is not required to provide the information required under this item.

#### Item 7. 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 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.

##### Our Business

We are a leading supplier of optoelectronic semiconductors packaged into high-speed optical receivers (HSOR products), custom optoelectronic subsystems (Optosolutions products) and Terahertz instrumentation (THz products), serving a variety of global OEMs. Our patented high-speed optical receivers include Avalanche Photodiode (APD) technology and PIN (positive-intrinsic-negative) photodiode technology based upon III-V materials, including InP, InAlAs, and GaAs. Our optoelectronic subsystems are based on our silicon Large Area Avalanche Photodiode (LAAPD), PIN photodiode, FILTRODE® detectors and LED assemblies. Our Terahertz sensor product line is targeted at the industrial, homeland security and military markets. Using our patented fiber coupled technology and high speed Terahertz generation and detection sensors, we are engaged in transferring Terahertz technology from the laboratory to the factory floor for use in non-destructive testing and real time quality control.

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 Industrial Sensing/NDT, Military/Aerospace, Telecom, 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, VAR's and distributors. Distributor and VAR sales represented approximately 13% of total revenue for the year ended March 31, 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 March 31, 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. During the year ended March 31, 2013, we adopted new FASB guidance relative to goodwill impairment whereby 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 valued 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 March 31, 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 \$14.4 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 \$0.84 to a low of \$0.38 on an intra-day basis during fiscal 2013. 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 current year operating loss, the Company performed an impairment evaluation. The Picometrix acquisition in 2005 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 100G market and our restored ability to service this growth given the resolution of supply chain constraints. 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.

#### Accounting for Income Taxes

Income tax provisions and benefits are made for taxes currently payable or refundable, and for deferred income taxes arising from future tax consequences of events that were recognized in the our financial statements or tax returns and tax credit carryforwards. The effects of income taxes are measured based on enacted tax laws and rates applicable to periods in which the differences are expected to reverse. If necessary, a valuation allowance is established to reduce deferred income tax assets to an amount that will more likely than not be realized in accordance with FASB guidance pertaining to accounting for income taxes.

As part our assessment of the need for a valuation allowance, we consider all available evidence, both positive and negative, including our recent operating results and our forecasting process. We forecast taxable income through our budgeting and planning process each year. The process takes into account existing contracts, firm sales backlog, and projected sales based upon customer supplied forecasts of product purchases, resources needed to fulfill these customers' requirements, and extraordinary expenses that may be part of long-term initiatives to increase shareholder value through revenue growth and efficiency improvements leading to profit improvement. We have substantial history, more than 10 years in most cases, with our customers and markets on which our forecasts are based.

At March 31, 2013, we had net operating loss carry forwards (NOL's) of approximately \$23.1 million for Federal income tax purposes and \$5.5 million for state income tax purposes that expire at various dates through fiscal year 2033. The tax laws related to the utilization of loss carry forwards are complex and the amount of the our loss carry

forward that will ultimately be available to offset future taxable income may be subject to annual limitations under Internal Revenue Code Section 382 resulting from changes in the ownership of our common stock.

We performed an analysis to determine whether an ownership change under Section 382 of the Internal Revenue Code had occurred. The effect of an ownership change would be the imposition of an annual limitation on the use of the net operating loss carry forwards attributable to periods before the change. As of March 31, 2013, we believe there are no limitations on the use of these Federal NOLs.

At March 31, 2013, our net deferred tax asset before consideration of a valuation allowance was approximately \$11.1 million, mainly consisting of net operating loss carry-forwards which expire at various amounts over an approximate 20 year period. In assessing the realizability of deferred tax assets, we have determined that at this time it is “more likely than not” that deferred tax assets will not be realized, primarily due to uncertainties related to our ability to utilize the net operating loss carry-forwards before they expire based on the negative evidence of our recent years’ history of losses over the past three years, outweighing the positive evidence of income projections in future years. The ultimate realization of these deferred tax assets is dependent upon the generation of future taxable income during those periods in which those temporary differences become deductible or within the periods before NOL carry forwards expire. As of both March 31, 2013 and 2012, we recorded a full valuation allowance on our net deferred tax assets.

The calculation of federal income taxes involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step involves evaluating the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step involves estimating and measuring the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as we have to determine the probability of various possible outcomes. Our evaluation of uncertain tax positions is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit, and new audit activity. Such a change in recognition or measurement would result in the recognition of a tax benefit or an additional charge to the tax provision. We have taken no tax positions which would require disclosure.

#### 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 goods sold.

#### Warrant Valuations

We have warrants outstanding exercisable into 1,462,196 shares of Series A Common Stock with an estimated value of \$292,000 as of March 31, 2013. We compute the 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

## Fiscal Year Ended March 31, 2013 Compared to Fiscal Year Ended March 31, 2012

## Revenues

We predominantly operate in one industry segment, light and radiation detection devices, and sell to five major markets including telecommunications, industrial sensing/Non-destructive Testing, military and aerospace, medical, and homeland security. Revenues by market consisted of the following:

	Year ended					
	March 31, 2013			March 31, 2012		
Telecommunications	\$ 7,090,000	30	%	\$ 11,865,000	40	%
Industrial Sensing/NDT	11,444,000	48	%	10,813,000	36	%
Military/Aerospace	4,176,000	18	%	4,308,000	15	%
Medical	939,000	4	%	1,164,000	4	%
Homeland Security	--	0	%	1,345,000	5	%
Total Revenues	\$ 23,649,000	100	%	\$ 29,495,000	100	%

Our total revenues for fiscal 2013 were \$23.6 million, a decrease of approximately \$5.8 million, or 20%, from revenues of \$29.5 million for fiscal 2012. One of our five market segments showed growth in fiscal 2013 relative to fiscal 2012.

Telecommunications sales were \$7.1 million, a decrease of \$4.8 million, or 40%, from fiscal 2012. The decrease in our telecommunications revenues for fiscal 2013 was the result of supply chain disruption at a major 100G customer early in the year, delay in ramping our new cost reduced 100G product due to supply issues from a component vendor and a slowdown in China infrastructure spend. Our Telecommunications revenue in the fourth quarter decreased approximately 40% (\$943,000) from the prior year fourth quarter and decreased approximately 28% (\$554,000) from the third quarter of the current year. The decline in revenue for the fourth quarter this year relative to last year was primarily due to completion of 40G network build outs in North America and Europe which were completed earlier in our current fiscal year. We saw a sequential quarterly revenue decline given a slowdown in government related telecom programs.

Industrial Sensing/NDT market revenues were \$11.4 million in fiscal 2013, an increase of 6% (\$631,000) from fiscal 2012 revenues of \$10.8 million. Our Industrial Sensing/NDT revenue in the fourth quarter of the current year increased 47% (\$1.2 million) from the comparable prior year quarter. These increases are the result of higher terahertz contract and system sales as well as approximately \$298,000 in revenues from one month of activity with the newly acquired net operating assets of Silonex (now known as Advanced Photonix Canada or APC). Revenues in this market during the fourth quarter of the current year also increased approximately 43%, or \$1.1 million, from the third quarter of the current year given a rebound in our Optosolutions product line business as well as the added revenue from the net operating assets of APC previously mentioned.

Military/Aerospace market revenues were \$4.2 million in fiscal 2013, a decrease of 3% (\$132,000) from the comparable prior year revenues of \$4.3 million, due to timing on certain government development contracts. Our military/aerospace market revenue in the fourth quarter of the current year decreased 29% (\$289,000) from the prior year fourth quarter due to timing of orders from our Optosolution customers. Our military/aerospace market revenues decreased 34% (\$366,000) from the third quarter of the current year. This decrease was attributable primarily to the contract completion of a major government terahertz development contract.

Medical market revenues decreased \$225,000, or 19%, to \$939,000 from the prior year revenue of \$1.2 million. Our medical market revenue in the fourth quarter of the current year decreased 26% (\$87,000) from the prior year fourth quarter and were essentially flat with the third quarter of the current year. These fluctuations are the result of one customer introducing a new product that does not require our photodetector.

Homeland security revenues decreased to \$0 from prior year revenue of \$1.3 million and the prior year fourth quarter revenue of \$330,000 given the completion of the In-Q-Tel anomaly detection development contract in our fiscal 2012. We have completed the development phase of this contract and any future revenues will be dependent on placement of our product on the US government's qualified products list.

In looking out to next year, we believe telecom revenues in fiscal year 2014 will be up significantly as supply constraints are now resolved. We expect growth in the industrial/NDT market in fiscal year 2014 driven by an improving industrial business landscape as well as a full year of revenues from the APC business. The military/aerospace market is expected to be flat to down primarily due to the completion of some major Terahertz development contracts, the wind down of worldwide conflicts and federal deficit reduction efforts curtailing defense spending. We expect medical market revenues to be flat in fiscal year 2014. Our guidance does not include any meaningful homeland security revenue for fiscal year 2014. Overall, we expect fiscal year 2014 to exceed 35% growth given the resolution of telecom supplier component constraints, the full year results of the Silonex net operating asset purchase and an improving industrial business climate.

#### Gross Profit

Gross Profit was \$8.8 million (or 37% of revenue), compared to the prior year of \$11.9 million (40% of revenue), a decrease of \$3.1 million. The lower gross profit rate and dollars were due primarily to the lower volume of HSOR and Optosolutions products sold during the year. Gross profit in the fourth quarter of fiscal 2013 was \$2.2 million (36% of revenue) versus \$2.2 million (34% of revenue) during the prior year fourth quarter due to cost reduction efforts to improve margins. Gross profit was \$2.5 million (42% of revenue) in the third quarter of fiscal 2013 and declined by approximately \$298,000 as expected in the fourth quarter of fiscal 2013, predominantly due to product mix as HSOR government sales trailed off and were replaced by industrial Optosolutions product sales.

#### Operating Expenses

Research and Development expenses (R&D) -- Our R&D expenses decreased approximately 13%, or \$858,000, over the prior year. R&D expenses of \$5.7 million for fiscal 2013 compared to \$6.5 million in fiscal 2012 were 24% and 22% of sales, respectively. In fiscal 2012, we increased headcount to develop and qualify certain 100G HSOR

products, and accelerate THz application and market development. Qualification costs were consequently down significantly in fiscal 2013 and we reduced compensation costs by 7% to bring our spending more in line with our revenue profile.

Sales and Marketing expenses (S&M) – S&M expenses decreased \$102,000 (or 5%) to \$2.1 million (9% of sales) in fiscal 2013 compared to \$2.2 million (7% of sales) in fiscal 2012. The decreased spending was due to the reduction in trade show expenses and lower commissions on lower revenues.

General and Administrative expenses (G&A) -- G&A expenses decreased \$158,000 to approximately \$4.3 million (18% of sales) for fiscal 2013, as compared to \$4.4 million (15% of sales) for fiscal 2012. The decrease was attributable to reduced stock compensation as our board of directors waived a portion of their annual grant and other grants were minimal for the year given business conditions.

Amortization expense decreased approximately \$193,000 to \$1.2 million compared to the prior year of approximately \$1.4 million. We use the cash flow amortization method on the majority of our intangible assets which results in a declining expense profile over the life of the assets.

Financing and Other Income (Expense), net

Interest income for fiscal 2013 was approximately \$10,000, compared to \$5,000 for fiscal 2012.

Interest expense for fiscal 2013 was \$202,000 as compared to \$164,000 in fiscal 2012, an increase of \$38,000, due to higher rates on our term loan with SVB, amortization of debt issuance costs related to the SVB and PFG loans, amortization of the debt discount on the PFG loan and the \$2.5 million in debt issued to Partners for Growth III, L.P (PFG) in February 2013 to assist in financing the Silonex business net operating asset purchase as well as provide additional liquidity.

For the year ended March 31, 2013, there was a reduction in the fair value of the warrant liability that triggered other income of \$168,000 which compared to other income of \$706,000 for the year ended March 31, 2012. FASB guidance requires our outstanding warrants to be recorded as a liability at fair value with subsequent changes in fair value recorded in earnings. The fair value of the warrant 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. When a warrant may have different share exercise assumptions such as those issued in February 2013 to PFG and affiliates, we weigh various values based on the estimated probability of each outcome as of the valuation date. The income of \$706,000 related to the change in fair value of the warrant liability for fiscal 2012 is primarily due to the decrease in our stock price and declining contractual life.

Net loss for fiscal 2013 was \$4.4 million (\$0.14 per share), as compared to net loss of \$2.1 million (\$0.07 per share) in fiscal 2012, an increase in the loss of approximately \$2.3 million. The increase in losses for the year were primarily attributable to the lower gross margin realized of \$3.1 million, \$538,000 less income on the change in fair value of warrants, offset by \$1.3 million in operating expense reductions.

Liquidity and Capital Resources

At March 31, 2013, we had cash and cash equivalents of \$619,000, a decrease of \$2.6 million from \$3.2 million as of March 31, 2012 as cash has been used to fund losses, acquire the Silonex (now known as Advanced Photonix Canada or APC) business, and pay down certain debt obligations. Cash used in operating activities in fiscal 2013 was \$2.2 million, cash used in investing activities was \$1.5 million and cash provided from financing activities netted \$1.1 million.

Operating Activities

Net cash used in operations for the year ended March 31, 2013 was \$2.2 million, the result of a net loss of \$4.4 million net of non-cash expenses of \$2.0 million and net cash provided by changes in operating assets and liabilities of \$201,000. Revenue levels in this year's fourth quarter were lower than the prior year thereby allowing for a liquidation of a small amount of working capital into cash.





Net cash provided by operating activities of \$130,000 for the year ended March 31, 2012 was the result of net cash provided by operations of \$100,000 and by net cash provided by changes in operating assets and liabilities of \$30,000. The net cash provided by operations included a net loss of \$2.1 million and non cash income of \$706,000 for the change in the fair value of warrants; offset by non-cash expenses of \$2.9 million from depreciation, amortization and stock based compensation expense. The net cash provided by changes in operating assets and liabilities of \$30,000 primarily resulted from a reduction in inventory offset by decreases in accounts payable as our production levels in fiscal 2012 were lower than the end of fiscal 2011.

#### Investing Activities

Net cash used in investing activities was \$1.5 million for the year ended March 31, 2013, consisting of capital expenditures of \$408,000, patent expenditures of \$181,000, and \$900,000 spent by our newly formed Canadian subsidiary, Advanced Photonix Canada, Inc to acquire the net operating assets of Silonex in March 2013.

Net cash used by investing activities was \$282,000 for the year ended March 31, 2012, consisting of capital expenditures of \$583,000 and patent expenditures of \$199,000, offset by the elimination of restricted cash of \$500,000 required under the PrivateBank Loan Agreement.

#### Financing Activities

Net cash provided by financing activities was approximately \$1.1 million for the year ended March 31, 2013. In February 2013, we entered into a 42 month amortizing note with PFG in exchange for \$2.5 million. During fiscal 2013, we made scheduled principal payments of \$923,000 on our debt with SVB, PFG and MEDC/MSF and paid down \$500,000 on our line of credit with SVB.

Net cash used in financing activities was approximately \$1.3 million for the year ended March 31, 2012. The amount consisted of a net increase in bank debt of \$319,000 offset by the payoff of related party debt of approximately \$1.2 million, and the reduction in MEDC/MSF debt of \$510,000.

#### Debt

##### Bank Debt

On September 25, 2008, we executed a loan agreement (the PrivateBank Loan Agreement) with The PrivateBank and Trust Company (PrivateBank). The initial PrivateBank Loan Agreement provided us with a term loan and a \$3.0 million line of credit. On September 23, 2011, we entered into a fifth amendment to the PrivateBank Loan Agreement (the Fifth Amendment) which established a new \$1.0 million term loan and extended the existing \$3.0 million line of credit. The term loan was to be repaid in monthly principal payments of \$20,833, plus interest at prime plus 0.5%, until maturity on October 1, 2015. The line of credit incurred interest at prime plus 0.5% and any outstanding borrowings were due on September 25, 2014. The availability under the line of credit was determined by a calculation of a borrowing base that includes a percentage of accounts receivable and inventory.

The line of credit was guaranteed by each of our wholly-owned subsidiaries and the term loan was secured by a security agreement among API, our subsidiaries and PrivateBank, pursuant to which PrivateBank received a first-priority security interest in certain described assets.

The PrivateBank Loan Agreement contained financial covenants including minimum debt service coverage ratio, adjusted EBITDA level, and net worth requirements, each as defined in the Loan Agreement.

On January 31, 2012, we entered into a loan and security agreement (and such other documents which constitute the SVB Loan Agreement) with Silicon Valley Bank (SVB) and terminated the PrivateBank Loan Agreement by paying off the outstanding balances. 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 as described in Note 10 to the Consolidated Financial Statements 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. We are restricted under the PFG Loan Agreement from borrowing more than \$1.5 million on the SVB line of credit for the first six months of the PFG loan. 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 initial SVB Loan Agreement 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 our liquidity ratio and adjusted three month rolling EBITDA as defined in the SVB Loan Agreement. Under the SVB Loan Agreement, we 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), we 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 March 31, 2013 were 6.75% and 6.25%, respectively. We had nothing outstanding on the SVB line of credit with approximately \$3.9 million in borrowing capacity as of March 31, 2013. However, given the PFG covenants, we are restricted from borrowing more than \$1.5 million on the SVB line through August 8, 2013.

The EX-IM line of credit with SVB is guaranteed by us and our subsidiaries and all borrowings under the SVB Loan Agreement are secured by a first priority security interest granted to SVB over substantially all of our respective assets. As of March 31, 2013, we are and expect 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 our bank lenders' during the years ended March 31, 2013 and March 31, 2012 were approximately \$54,000 and \$48,000, respectively.

#### Partners for Growth Secured Debt

On February 8, 2013, we 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, we 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, we received \$2.5 million in cash and were obligated to make monthly principal and interest payments beginning in March 2013 for 42 months at an initial interest rate of 11.75%. The interest rate may be reduced to 9.75% based on the achievement of certain revenue and adjusted EBITDA metrics in future periods. 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. We are restricted under the agreement from borrowing more than \$1.5 million on the SVB line of credit for the first six months of the PFG Loan Agreement.

As part of the consideration for the loan, we 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 we achieve 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 we are acquired, liquidate, conduct 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. We 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 March 31, 2013, there was \$404,000 in remaining unamortized debt discount offset against the PFG long term debt principal. See Note 9 to the Consolidated Financial Statements for additional information on the PFG warrants.

Total interest payments made to PFG during the years ended March 31, 2013 and March 31, 2012 were approximately \$12,000 and \$0, respectively.

We were in compliance with our loan covenants as of March 31, 2013.

#### MEDC/MSF Loans

The Michigan Economic Development Corporation (MEDC) entered into two loan agreements with our 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 are unsecured.

Under the amended terms of the MEDC-loan 1, we are to make monthly principal and interest payments of \$22,533 through maturity in December 2014. The interest rate on MEDC-loan 1 was 4.0% at March 31, 2013.

Under the amended terms of the MEDC-loan 2, which was assigned to the Michigan Strategic Fund (MSF) in June 2010, we are to make monthly principal and interest payments of \$25,758 through maturity in October 2014. The interest rate on the MSF loan was 4.0% at March 31, 2013.

Interest payments made to the MEDC/MSF were approximately \$49,000 and \$69,000 during the years ended March 31, 2013 and March 31, 2012, respectively.

#### Liquidity Outlook

Combined with the newly agreed covenants with both SVB and PFG, 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.

#### Summary of Contractual Obligations

The following table sets forth our contractual obligations at March 31, 2013.

Contractual Obligations	Payments due by period				
	Total	FY 2014	FY 2015- 2017	FY 2018- 2020	FY 2021 & later
Bank line of credit	\$-	\$-	\$-	\$-	\$-
Bank term loan	667,000	333,000	334,000	-	-
Partners for Growth loan	2,441,000	714,000	1,727,000	-	-
MEDC/MSF loans	930,000	553,000	377,000	-	-
Subtotal–Balance Sheet	\$4,038,000	\$1,600,000	\$2,438,000	\$-	\$-
Expected interest expense on current debt obligations	558,000	303,000	255,000	-	-
Operating lease obligations	5,354,000	950,000	1,783,000	1,887,000	734,000
Purchase obligations	1,560,000	1,527,000	33,000	-	-
Total	\$11,510,000	\$4,380,000	\$4,509,000	\$1,887,000	\$734,000

The Partners for Growth debt is shown at face value in the above table while the balance sheet reflects a debt discount related to the warrants issued of \$405,000 as of March 31, 2013. Purchase obligations represent an estimate of all open purchase orders and contractual obligations in the ordinary course of business for which we have not yet received the goods or services. We enter into agreements with suppliers that allow them to procure inventory based upon agreements defining our material and services requirements. Although open purchase orders are considered enforceable and legally binding, the terms generally allow us the option to cancel, reschedule and adjust our requirements based on our business needs prior to the delivery of goods or the performance of services.

#### Off-Balance-Sheet Arrangements

At March 31, 2013 and March 31, 2012, we did not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which are typically established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

#### Recent Accounting Pronouncements

There have been no recent accounting pronouncements expected to significantly impact our financial statements.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

At March 31, 2013, most of our interest rate exposure is linked to the prime rate, subject to certain limitations, offset by interest that may be earned on our cash balances. As such, we are at risk to the extent of changes in the prime rate that are not reflected in money market rates. We do not believe that moderate changes in the prime rate will materially affect our operating results or financial condition.

Over 99% of our sales and purchases are denominated in U.S. dollars for fiscal 2013. At March 31, 2013, we were subject to less than \$1 million of foreign currency exchange fluctuations primarily with the Canadian dollar.

#### Item 8. Financial Statements and Supplementary Data

The following consolidated financial statements of Advanced Photonix, Inc., prepared in accordance with Regulation S-X and the Report of the Independent Registered Public Accounting Firm are included in Item 8:

Report of Independent Registered Public Accounting Firm	Page 36
Financial Statements: Consolidated Balance Sheets as of March 31, 2013 and March 31, 2012	37

Consolidated Statements of Operations for the years ended March 31, 2013 and March 31, 2012	38
Consolidated Statements of Shareholders' Equity for the years ended March 31, 2013 and March 31, 2012	39
Consolidated Statements of Cash Flows for the years ended March 31, 2013 and March 31, 2012	40
Notes to Consolidated Financial Statements	41

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders  
of Advanced Photonix, Inc.  
Ann Arbor, Michigan

We have audited the accompanying consolidated balance sheets of Advanced Photonix, Inc. as of March 31, 2013 and 2012 and the related consolidated statements of operations, shareholders' equity and cash flows for the years then ended. In connection with our audits of the financial statements, we have also audited the financial statement schedule included at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements and schedule. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Advanced Photonix, Inc. at March 31, 2013 and 2012, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Also, in our opinion, the financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ BDO USA, LLP  
Troy, Michigan  
July 1, 2013

ADVANCED PHOTONIX, INC.  
CONSOLIDATED BALANCE SHEETS

	March 31, 2013	March 31, 2012
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$619,000	\$3,249,000
Receivables, net of allowance for doubtful accounts of \$56,000 and \$39,000, respectively	4,988,000	4,539,000
Inventories	3,905,000	3,594,000
Prepaid expenses and other current assets	795,000	261,000
Total current assets	10,307,000	11,643,000
Equipment and leasehold improvements, net	3,415,000	3,301,000
Goodwill	4,579,000	4,579,000
Intangibles, net	3,686,000	4,538,000
Security deposits and other assets	229,000	322,000
Total Assets	\$22,216,000	\$24,383,000
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$1,829,000	\$872,000
Accrued compensation	729,000	866,000
Accrued subcontracting costs	427,000	355,000
Other accrued expenses	871,000	651,000
Current portion of long-term debt, PFG	714,000	--
Current portion of long-term debt, MEDC/MSF	553,000	532,000
Current portion of long-term debt, bank line of credit	--	500,000
Current portion of long-term debt, bank term loan	333,000	333,000
Total current liabilities	5,456,000	4,109,000
Long-term debt, less current portion – PFG, net of debt discount	1,322,000	--
Long-term debt, less current portion – MEDC/MSF	377,000	929,000
Long-term debt, less current portion – bank term loan	334,000	667,000
Warrant liability	292,000	26,000
Total liabilities	7,781,000	5,731,000
Commitments and contingencies		
Shareholders' equity:		
Class A Common Stock, \$.001 par value, 100,000,000 authorized; 31,158,347 shares issued and outstanding as of March 31, 2013 and 31,159,431 shares issued and outstanding as of March 31, 2012.	31,000	31,000
Additional paid-in capital	58,616,000	58,446,000
Accumulated deficit	(44,212,000)	(39,825,000)
Total shareholders' equity	14,435,000	18,652,000
Total Liabilities and Shareholders' Equity	\$22,216,000	\$24,383,000

See Notes to Consolidated Financial Statements.





ADVANCED PHOTONIX, INC.  
CONSOLIDATED STATEMENTS OF OPERATIONS  
For the Fiscal Years Ended March 31, 2013 and March 31, 2012

	2013	2012
Sales, net	\$23,649,000	\$29,495,000
Cost of products sold	14,823,000	17,637,000
Gross profit	8,826,000	11,858,000
Operating expenses:		
Research and development expenses	5,683,000	6,541,000
Sales and marketing expenses	2,093,000	2,195,000
General and administrative expenses	4,254,000	4,412,000
Amortization expense – intangible assets	1,181,000	1,374,000
Total operating expenses	13,211,000	14,522,000
Loss from operations	(4,385,000 )	(2,664,000 )
Other income (expense):		
Interest income	10,000	5,000
Interest expense	(202,000 )	(123,000 )
Interest expense, related parties	--	(41,000 )
Change in fair value of warrant liability	168,000	706,000
Other income (expense)	22,000	5,000
Total other income (expense)	(2,000 )	552,000
Loss before benefit for income taxes	(4,387,000 )	(2,112,000 )
Benefit for income taxes	--	--
Net loss	\$(4,387,000 )	\$(2,112,000 )
Basic and diluted loss per share	\$(0.14 )	\$(0.07 )
Weighted average common shares outstanding	31,161,000	30,873,000

See Notes to Consolidated Financial Statements.

ADVANCED PHOTONIX, INC.  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
For the Fiscal Years Ended March 31, 2013 and March 31, 2012  
(In thousands, except share data)

---

	Class A Common Shares	Class A Common Amount	Additional Paid-in Capital	Accumulated Deficit	Total
BALANCE,					
MARCH 31, 2011	30,679,046	\$31	\$57,891	\$ (37,713 )	\$20,209
Exercise of stock options	80,949	--	23	--	23
Issuance of restricted shares	399,436	--	--	--	--
Stock based compensation	--	--	532	--	532
Net loss and comprehensive loss	--	--	--	(2,112 )	(2,112 )
BALANCE,					
MARCH 31, 2012	31,159,431	31	58,446	(39,825 )	18,652
Exercise of stock options	1,716	--	3	--	3
Forfeiture of restricted shares	(2,800 )	--	--	--	--
Stock based compensation	--	--	167	--	167
Net loss and comprehensive loss	--	--	--	(4,387 )	(4,387 )
BALANCE,					
MARCH 31, 2013	31,158,347	\$31	\$58,616	\$ (44,212 )	\$14,435

See Notes to Consolidated Financial Statements.

ADVANCED PHOTONIX, INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
For the fiscal years ended March 31, 2013 and March 31, 2012

	2013	2012
Cash flows from operating activities:		
Net loss	\$(4,387,000)	\$(2,112,000)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities		
Depreciation	785,000	1,012,000
Amortization of intangible assets	1,181,000	1,374,000
Amortization of debt discount	29,000	0
Stock based compensation expense	167,000	532,000
Change in fair value of warrant liability	(168,000 )	(706,000 )
Changes in operating assets and liabilities:		
Accounts receivable	(150,000 )	48,000
Inventories	71,000	1,181,000
Prepaid expenses and other assets	(429,000 )	41,000
Accounts payable	596,000	(1,226,000)
Accrued expenses	84,000	(14,000 )
Net cash provided by (used in) operating activities	(2,221,000)	130,000
Cash flows from investing activities:		
Capital expenditures	(408,000 )	(583,000 )
Change in restricted cash	--	500,000
Patent expenditures	(181,000 )	(199,000 )
Cash paid for Silonex net assets	(900,000 )	--
Net cash used in investing activities	(1,489,000)	(282,000 )
Cash flows from financing activities:		
Payments on bank term loan	(333,000 )	(1,685,000)
Payments on bank line of credit	(500,000 )	(494,000 )
Proceeds from bank term loan	--	1,998,000
Proceeds from bank line of credit	--	500,000
Payments on MEDC/MSF term loan	(531,000 )	(510,000 )
Payments on related party debt	--	(1,175,000)
Proceeds from PFG Loan	2,500,000	--
Payments on PFG Loan	(59,000 )	--
Proceeds from exercise of stock options	3,000	23,000
Net cash provided by (used in) financing activities	1,080,000	(1,343,000)
Net decrease in cash and cash equivalents	(2,630,000)	(1,495,000)
Cash and cash equivalents, beginning of year	3,249,000	4,744,000
Cash and cash equivalents, end of year	\$ 619,000	\$ 3,249,000
Supplemental cash flow information:		
Cash paid for interest	\$ 115,000	\$ 174,000

Cash paid for income taxes	\$--	\$--
----------------------------	------	------

See Notes to Consolidated Financial Statements.

ADVANCED PHOTONIX, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
March 31, 2013 and March 31, 2012

1. The Company

Advanced Photonix, Inc. ® (the Company, we, us or API), was incorporated under the laws of the State of Delaware in June 1988. The Company is a leading supplier of optoelectronic semiconductors which are packaged into components, sub-systems and full systems for high-speed optical receivers (HSOR), custom optoelectronic products and Terahertz (THz) instrumentation, serving a variety of global markets. The Company supports its 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.

2. Basis of Presentation and Summary of Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the financial statements of the Company and its wholly-owned subsidiaries (Silicon Sensors, Inc., Picometrix, LLC and Advanced Photonix Canada, Inc.). All significant inter-company balances and transactions have been eliminated in consolidation.

Reclassifications

Certain prior year balances have been reclassified in the consolidated financial statements to conform to the current year presentation.

Operating Segment Information

Financial Accounting Standards Board (FASB) guidance establishes annual and interim reporting standards for operating segments and requires certain disclosures about the products and services an entity provides, the material countries in which it holds assets and reports revenue, and its major customers. Operating segments are defined as components of an enterprise that engage in business activities for which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. API's chief operating decision makers are its chief executive officer and chief operating officer, who review financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. API has one business activity: light and radiation detection devices. The nature of the production process is similar for all product lines, and manufacturing for the different product lines occurs in common facilities. The types and class of customers are in some cases similar across the three product lines.

Pervasiveness of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America 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.

Fair Value of Financial Instruments

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

approximates fair value as this debt was entered into in February 2013.

#### Cash Equivalents

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

#### Accounts Receivable

Receivables are stated at amounts estimated by management to be the net realizable value. The allowance for doubtful accounts is based on specific identification. Accounts receivable are charged off when it becomes apparent, based upon age or customer circumstances, that such amounts will not be collected.

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 March 31, 2013, one customer individually comprised 11.9% of accounts receivable. As of March 31, 2012, two customers individually comprised 10% or more of accounts receivable (combining for 28.9% of total accounts receivable). The allowance for doubtful accounts was \$56,000 and \$39,000 on March 31, 2013 and March 31, 2012, respectively.

#### Concentration of Credit Risk

Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. We have never experienced any losses related to these balances. All of the Company's non-interest bearing cash balances were fully insured at March 31, 2012 due to a temporary federal program in effect from December 31, 2010 through December 31, 2012. As of March 31, 2013, approximately \$190,000 was held at Silicon Valley Bank in excess of federally insured limits.

#### 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 goods sold.

#### Equipment and Leasehold Improvements

Equipment and leasehold improvements are stated at cost. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the assets, as follows:

Leasehold improvements	Term of lease or useful life, whichever is less
Machinery and equipment	5 – 7 years
Furniture and fixtures	3 – 7 years
Computer hardware	3 – 7 years
Computer software	3 – 5 years

#### Patents



Patents represent costs incurred in connection with patent applications. Such costs are amortized using the straight-line method over the useful life of the patent once issued, or expensed immediately if any specific application is unsuccessful.

#### Impairment of Long-Lived Assets and Goodwill

As of March 31, 2013 and March 31, 2012, the consolidated balance sheet 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. During the year ended March 31, 2013, the Company adopted new FASB guidance relative to goodwill impairment whereby in its annual assessment of goodwill impairment, the Company has 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, the Company determines 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. The Company has selected March 31 as the date for its annual impairment test.

The Company continues to meet the criteria of operating in a single reportable segment and having a single reporting unit. API determines 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. The Company uses this 20-day duration to remove inherent market fluctuations that may affect any individual closing price. API believes 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, the Company adds 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. The Company's valuation as of March 31, 2013 indicated there were no impairments of Goodwill as the Company's market capitalization as computed above was, even without a control premium added, in excess of the carrying value including Goodwill of \$14.4 million.

As evidenced above, API's 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 \$0.84 to a low of \$0.38 on an intra-day basis during fiscal 2013. The current macroeconomic environment continues to be challenging and the Company cannot be certain of the duration of these conditions and their potential impact on our stock price performance. If the Company's 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 current year operating loss, the Company performed an impairment evaluation. The Picometrix acquisition in 2005 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 photodiodes, which are essential for all products sold by Picometrix, the Company has 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, the Company concluded that as of March 31, 2013 there were no impairments indicated based upon the expected overall growth in the 100G market and our restored ability to service this growth given the resolution of supply chain constraints. 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

#### Revenue Recognition

Revenue is derived principally from the sales of the Company's products. API recognizes revenue when persuasive evidence of an arrangement exists, usually in the form of a purchase order, when shipment has occurred or when services have been rendered since title and risk of loss typically transfer at shipment, 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.

The Company sells certain of its 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. The estimated exposure is accrued to warranty claims based upon historical claim costs. These estimates are reviewed on a regular basis with adjustments to the warranty provisions as other information becomes available.

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

API predominantly sells directly to original equipment manufacturers with a direct sales force with limited sales through representatives, value added reseller's (VAR) and distributors. Distributor and VAR sales represented approximately 13% of total revenue for the year ended March 31, 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, the products are not considered inventory on consignment.

Revenue is also derived from technology research and development contracts. API recognizes revenue from these contracts as services and/or materials are provided. Government contract revenues represent approximately 15% and 11% of annual sales for the years ended March 31, 2013 and 2012, respectively.

#### Significant Customers

During the fiscal year ended March 31, 2013, there were no customers that accounted for 10% or more of the Company's net sales. During the fiscal year ended March 31, 2012, one customer accounted for 15% of the Company's net sales.

#### Product Warranty

The Company generally sells products with a limited warranty of product quality. The Company accrues for known warranty issues if a loss is probable and can be reasonably estimated, and accrues for estimated incurred but unidentified issues based on historical activity. Accrued product warranty liability is included in Other accrued expenses in the Consolidated Balance Sheets.

The following table presents the movement in the product warranty liability for the years ended March 31, 2013 and March 31, 2012.

	Years ended March 31,	
	2013	2012
Beginning balance	\$ 24,000	\$ 51,000
Current period accruals	51,000	4,000
Used for purpose intended	(12,000 )	(31,000 )
Ending balance	\$ 63,000	\$ 24,000

#### Shipping and Handling Costs

The Company's policy is to classify shipping and handling costs as a component of Costs of products sold in the Consolidated Statements of Operations.

#### Research and Development Costs

The Company charges all research and development costs, including costs associated with development contract revenues, to expense when incurred. Manufacturing costs associated with the development of a new fabrication

process or a new product are expensed until such times as these processes or products are proven through final testing and initial acceptance by the customer. Costs related to revenues on non-recurring engineering services billed to customers are generally classified as cost of product sold. The Company generally retains intellectual property rights related to paid research and development contracts.

#### Advertising Costs

Advertising costs are expensed as incurred. Advertising expense was approximately \$30,000 and \$45,000 in fiscal 2013 and fiscal 2012, respectively, and is included in Sales and Marketing expenses in the Consolidated Statements of Operations.

### Accounting for Stock Based Compensation

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.

### Accounting for Income Taxes

Income tax provisions and benefits are made for taxes currently payable or refundable, and for deferred income taxes arising from future tax consequences of events that were recognized in the Company's financial statements or tax returns and tax credit carry forwards. The effects of income taxes are measured based on enacted tax laws and rates applicable to periods in which the differences are expected to reverse. If necessary, a valuation allowance is established to reduce deferred income tax assets to an amount that will more likely than not be realized.

The calculation of federal income taxes involves dealing with uncertainties in the application of complex tax regulations. The Company recognizes liabilities for uncertain tax positions based on a two-step process. The first step involves evaluating the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step involves estimating and measuring the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as the Company has to determine the probability of various possible outcomes. Our evaluation of uncertain tax positions is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit, and new audit activity. Such a change in recognition or measurement would result in the recognition of a tax benefit or an additional charge to the tax provision. The Company has taken no tax positions which would require disclosure. Although the Internal Revenue Service (IRS) is not currently examining any of our income tax returns, tax filings for the fiscal years 2010 to 2012 remain open and are subject to examination.

### Earnings per Share

The Company presents both basic and diluted earnings (loss) per share (EPS) amounts. Basic EPS is calculated by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted EPS amounts are based upon the weighted average number of common and common equivalent shares outstanding during the period. The Company uses the treasury stock method to calculate the impact of outstanding stock options and warrants. Common equivalent shares are excluded from the computation in periods in which they have an anti-dilutive effect. All common stock equivalents have been excluded from the calculation of Diluted EPS due to the net loss in both the years ended March 31, 2013 and 2012. The total shares excluded from the computation of diluted earnings per share for the year ended March 31, 2013 totaled 2,352,000 shares, representing outstanding stock options and warrants exercisable into shares of common stock. The total shares excluded from the computation of diluted earnings per share for the year ended March 31, 2012 totaled 2,891,000 shares, representing outstanding stock options and warrants exercisable into shares of common stock.

### 3. Inventories

Inventories consisted of the following at March 31:

	2013	2012
Raw material	\$ 2,600,000	\$ 2,342,000
Work-in-process	782,000	949,000
Finished products	523,000	303,000
Inventories	\$ 3,905,000	\$ 3,594,000

### 4. Equipment and Leasehold Improvements

Equipment and leasehold improvements consisted of the following at March 31:

	2013	2012
Machinery and equipment	\$ 9,967,000	\$ 9,128,000
Furniture and fixtures	746,000	711,000
Leasehold improvements	1,083,000	1,061,000
Computer hardware	697,000	689,000
Capitalized software	1,087,000	1,024,000
Total assets	13,580,000	12,613,000
Accumulated depreciation	(10,338,000)	(9,727,000 )
	3,242,000	2,886,000
Construction-in-process	173,000	415,000
Net equipment and leasehold improvements	\$ 3,415,000	\$ 3,301,000

Depreciation expense for the fiscal years ended March 31, 2013 and 2012 was approximately \$785,000 and \$1.0 million, respectively.

## 5. Intangible Assets and Goodwill

### Intangibles

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

	Original Average Lives in Years	Amortization Method	March 31, 2013		
			Carrying Value	Accumulated Amortization	Intangibles Net
Customer list	15	Straight Line	\$ 190	\$ 100	\$ 90
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

  

	Original Average Lives in Years	Amortization Method	March 31, 2012		
			Carrying Value	Accumulated Amortization	Intangibles Net
Customer list	15	Straight Line	\$ 475	\$ 372	\$ 103
Trademarks	15	Cash Flow	2,270	949	1,321
Technology	10	Cash Flow	10,950	9,027	1,923
Patents pending			673	--	673
Patents	10	Straight Line	764	246	518
Total Intangibles			\$ 15,132	\$ 10,594	\$ 4,538

Amortization expense was approximately \$1.2 million and \$1.4 million for the years ended March 31, 2013 and March 31, 2012, respectively. The current patents held by the Company have remaining useful lives ranging from 2 years to 20 years.

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 are as follows:



Intangible Assets and Patents (000's)(a)	
2014	\$ 1,012
2015	427
2016	449
2017	301
2018	303
2019 and thereafter	522
Total	\$ 3,014

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

#### Goodwill

Goodwill reflected on the consolidated balance sheets as of March 31, 2013 and March 31, 2012 is net of previously recorded impairment charges of \$954,000.

#### 6. Debt

##### Bank Debt

On September 25, 2008, API executed a loan agreement (the PrivateBank Loan Agreement) with The PrivateBank and Trust Company (PrivateBank). The initial PrivateBank Loan Agreement provided the Company with a term loan and a \$3.0 million line of credit. On September 23, 2011, the Company entered into a fifth amendment to the PrivateBank Loan Agreement (the Fifth Amendment) which established a new \$1.0 million term loan and extended the existing \$3.0 million line of credit. The term loan was to be repaid in monthly principal payments of \$20,833, plus interest at prime plus 0.5%, until maturity on October 1, 2015. The line of credit incurred interest at prime plus 0.5% and any outstanding borrowings were due on September 25, 2014. The availability under the line of credit was determined by a calculation of a borrowing base that includes a percentage of accounts receivable and inventory.

The line of credit was guaranteed by each of the Company's wholly-owned subsidiaries and the term loan was secured by a security agreement among API, the Company's subsidiaries and PrivateBank, pursuant to which PrivateBank received a first-priority security interest in certain described assets.

The PrivateBank Loan Agreement contained financial covenants including minimum debt service coverage ratio, adjusted EBITDA level, and net worth requirements, each as defined in the Loan Agreement.

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 the PrivateBank Loan Agreement by paying off the outstanding balances. 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 as described in Note 10 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 Company is restricted under the PFG Loan Agreement from borrowing more than \$1.5 million on the SVB line of credit for the first six months of the PFG loan. 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 initial SVB Loan Agreement 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 March 31, 2013 were 6.75% and 6.25%, respectively. The Company had nothing outstanding on the SVB line of credit with approximately \$3.9 million in borrowing capacity as of March 31, 2013. However, given the PFG covenants, the Company is restricted from borrowing more than \$1.5 million on the SVB line through August 8, 2013.

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 March 31, 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 years ended March 31, 2013 and March 31, 2012 were approximately \$54,000 and \$48,000, 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 initial interest rate of 11.75%. The interest rate may be reduced to 9.75% based on the achievement of certain revenue and adjusted EBITDA metrics in future periods. 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. The Company is restricted under the agreement from borrowing more than \$1.5 million on the SVB line of credit for the first six months of the PFG Loan Agreement.

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 March 31, 2013, there was \$405,000 in remaining unamortized debt discount offset against the PFG long term debt principal. See Note 9 to the Consolidated Financial Statements for additional information on the PFG warrants.

Total interest payments made to PFG during the years ended March 31, 2013 and March 31, 2012 were approximately \$12,000 and \$0, respectively.

The Company was in compliance with its loan covenants as of March 31, 2013.

#### MEDC/MSF Loans

The Michigan Economic Development Corporation (MEDC) entered into two 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 are unsecured.

Under the amended terms of the MEDC-loan 1, the Company is to make monthly principal and interest payments of \$22,533 through maturity in December 2014. The interest rate on MEDC-loan 1 was 4.0% at March 31, 2013.

Under the amended terms of the MEDC-loan 2, which was assigned to the Michigan Strategic Fund (MSF) in June 2010, the Company is to make monthly principal and interest payments of \$25,758 through maturity in October 2014. The interest rate on the MSF loan was 4.0% at March 31, 2013.

Interest payments made to the MEDC/MSF were approximately \$49,000 and \$69,000 during the years ended March 31, 2013 and March 31, 2012, respectively.

The current debt principal and maturities of all outstanding debt are included in the table below. The PFG loan balance below reflects the remaining principal on the amortizing term loan but is shown net of a debt discount of \$405,000 on the Company's balance sheet.

#### Debt Maturity Table (in 000's)

	Balance 3/31/12	Balance 3/31/13	Debt Maturities					FY2019 & Beyond
			FY2014	FY2015	FY2016	FY2017	FY2018	
Credit Line – Silicon Valley Bank	\$ 500	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --
Term Loan – Silicon Valley Bank Partners for Growth Loan	1,000	667	333	334	--	--	--	--
MEDC/MSF loans	--	2,441	714	715	714	298	--	--
	1,461	930	553	377	--	--	--	--
<b>TOTAL</b>	<b>\$ 2,961</b>	<b>\$ 4,038</b>	<b>\$ 1,600</b>	<b>\$ 1,426</b>	<b>\$ 714</b>	<b>\$ 298</b>	<b>\$ --</b>	<b>\$ --</b>

#### 7. Capitalization

The Company's Certificate of Incorporation provides for one class of common stock: Class A Common Stock, par value \$.001, for which 100,000,000 shares are authorized for issuance. The holder of each share of Class A Common Stock is entitled to one vote per share.

The Company's Certificate of Incorporation also authorizes the issuance of 10,000,000 shares of Preferred Stock, of which 780,000 shares have been designated Class A Redeemable Convertible Preferred Stock with a par value of \$.001 per share.



## 8. Stock Based Compensation

The Company has three equity award plans: The 1997 Employee Stock Option Plan, the 2000 Stock Option Plan and the 2007 Equity Incentive Plan. As of December 30, 2011, 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 263,295 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.

Stock option transactions for fiscal years 2013 and 2012 are summarized as follows:

	Shares (000)	Weighted Average Exercise Price	Weighted Average Term (in years)	Aggregate Intrinsic Value
Outstanding, March 31, 2011	2,161	\$ 1.65	5.90	\$ 1,114,000
Exercisable, March 31, 2011	1,933	\$ 1.74	4.89	\$ 854,000
Outstanding, March 31, 2011	2,161	\$ 1.65		
Granted	538	\$ 1.34		
Exercised	(395 )	\$ 0.68		
Expired	(37 )	\$ 1.70		
Outstanding, March 31, 2012	2,267	\$ 1.75	5.77	\$ 32,000
Exercisable, March 31, 2012	1,994	\$ 1.88	5.18	\$ 15,000
Outstanding, March 31, 2012	2,267	\$ 1.75		
Granted	192	\$ 0.63		
Exercised	(5 )	\$ 0.44		
Expired	(62 )	\$ 1.73		
Outstanding, March 31, 2013	2,392	\$ 1.66	4.64	\$ 3,000
Exercisable, March 31, 2013	2,142	\$ 1.76	4.19	\$ 3,000
Vested & expected to Vest, March 31, 2013	2,349	\$ 1.67	4.64	\$ 3,000

Information regarding stock options outstanding as of March 31, 2013 is as follows:

Price Range	(in 000s) Shares	Options Outstanding Weighted Average Exercise Price	Weighted Average Remaining Life
\$0.50 - \$1.25	628	\$0.74	7.06
\$1.26 - \$2.50	1,474	\$1.82	4.05
\$2.51 - \$5.34	290	\$2.84	3.38
Price Range	(in 000s)	Options Exercisable Weighted Average	Weighted Average

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

			Shares	Exercise Price	Remaining Life
\$0.50	-	\$1.25	377	\$0.71	6.11
\$1.26	-	\$2.50	1,474	\$1.82	4.05
\$2.51	-	\$5.34	290	\$2.84	2.38

50

---

The intrinsic value of options exercised in fiscal years 2013 and 2012 was approximately \$1,000 and \$59,000, respectively.

During fiscal 2012 and fiscal 2013, restricted shares were issued to certain individuals. The restricted share transactions are summarized below for Fiscal 2013 and 2012:

	Shares (000)	Weighted Average Grant Date Fair Value
Unvested, March 31, 2011	70	\$ 0.44
Granted	399	\$ 0.97
Vested	(223 )	\$ 0.96
Expired	--	--
Unvested, March 31, 2012	246	\$ 0.84
Granted	-	\$ --
Vested	(115 )	\$ 0.80
Expired	(3 )	\$ 0.76
Unvested, March 31, 2013	128	\$ 0.87

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:

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. As additional evidence develops from the Company's option exercise history, the expected term assumption will be refined to capture the relevant trends.

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.

A dividend yield of zero has been assumed for awards issued during the years ended March 31, 2013 and March 31, 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.

The Company has based its risk-free interest rate assumption for awards issued during the years ended March 31, 2013 and March 31, 2012 on the implied yield available on U.S. Treasury issues with an equivalent expected term.

The forfeiture rate, for awards issued for the year ended March 31, 2013 was approximately 17.1% and March 31, 2012 was approximately 16.4%, and was based on the Company's actual historical forfeiture history.

	Year Ended	
	March 31, 2013	March 31, 2012
Option Plan Shares:		
Expected term (in years)	6.3	6.3
Volatility	66.8%-67.0%	67.3%
Expected dividend	0.0%	0.0%
Risk-free interest rate	0.59%-1.05%	1.05%
Weighted-average grant date fair value	\$0.38	\$0.83





The table below lists the classification of the stock based compensation expense for the years ended March 31, 2013 and March 31, 2012.

	2013		2012	
Cost of products sold	\$	15,000	\$	55,000
Research and development expense		45,000		157,000
General and administrative expense		94,000		295,000
Sales and marketing expense		13,000		25,000
Total Stock Based Compensation	\$	167,000	\$	532,000

At March 31, 2013, the total stock-based compensation expense related to unvested stock options and restricted shares granted to employees and directors under the Company's stock plans but not yet recognized was approximately \$173,000. This expense will be amortized on a straight-line basis over a weighted-average period of approximately 2.1 years and will be adjusted for subsequent changes in estimated forfeitures.

## 9. Equity

### Warrants

The schedule below shows the outstanding warrants at March 31, 2013 and March 31, 2012:

	Warrants Outstanding & Exercisable				
	Shares 2013	Shares 2012	Weighted Average Exercise Price 2013	Weighted Average Exercise Price 2012	Remaining Life (in yrs) at 3/31/13
2007 Warrants*	--	629,829	\$ --	\$ 1.790	0.0
2010 Warrants	267,196	267,196	\$ 1.376	\$ 1.404	2.7
PFG Warrants	1,195,000	--	\$ 0.584	--	4.9
Total	1,462,196	897,025			

\* Expired on September 20, 2012

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 warrants agreement, 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 6, during February 2013, the Company issued to PFG warrants to purchase 1,195,000 in the Company's Class A Common Stock. The PFG warrants are exercisable over a five year period with 995,000 shares at 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 warrant 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 years ended March 31, 2013 and 2012, the Company recorded credits to its Consolidated Statement of Operations of \$168,000 and \$706,000, respectively. The fair value of the liability warrants outstanding, was

approximately \$292,000 and \$26,000 at March 31, 2013 and 2012, respectively.

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

52

---

	March 31, 2013		March 31, 2012
	PFG Warrants	2010 Warrants	2010 Warrants
Contractual term in years	4.9	2.7	3.7
Volatility	74.1%	70.2%	73.3%
Expected dividend	--	--	--
Risk-free interest rate	0.76%	0.33%	2.0%

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.

The Company computed the 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 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 years ended March 31, 2013 and 2012.

	Year Ended March 31,	
	2013	2012
Level 3 Warrants, beginning of year	\$ 26,000	\$ 732,000
Addition – PFG Warrants, initial fair value	434,000	--
Change in fair value of warrant liability	(168,000 )	(706,000 )
Level 3 Warrants, end of year	\$ 292,000	\$ 26,000

#### 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.

## 10. Silonex Net Asset Purchase

On March 1, 2013, the Company, through its Advanced Photonix Canada, Inc. subsidiary, 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 operation of Silonex have been included in the consolidated financial statements since the date of the acquisition. The functional currency of APC is the US Dollar.

The following table presents the allocation of the purchase price to the net assets acquired based on their fair values:

Net Assets Acquired	Allocation
Receivables	\$ 299,000
Inventories	382,000
Prepaid and other current assets	12,000
Equipment and leasehold improvements	491,000
Distribution rights	148,000
Total assets acquired	\$ 1,332,000
Accounts payables	\$ 361,000
Accrued compensation	62,000
Other liabilities	9,000
Total liabilities assumed	\$ 432,000
Total net assets acquired	\$ 900,000

The Company evaluated the potential for various types of intangible assets to determine the fair value of any acquired intangible assets. Pursuant to the terms of the asset purchase agreement, API did not acquire any patent or trademarks, obtain any long term customer agreements or receive non-compete assurances so no value was assigned to these potential intangible assets. Silonex had for the past 10 years focused on automotive designs which were retained by their parent. As such, the Company did not acquire any in-process technology projects nor any established technology and therefore did not assign any value to this intangible class. API did receive an established list of customers and rights to distribute the products worldwide which was valued at approximately \$148,000. Given the life cycle of a normal customer, a useful life of seven years was used for amortization of the intangible asset.

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 fiscal 2013. Given certain assumptions on China sales which were done on a royalty basis, the Company has been able to estimate the total sales for fiscal 2013 at approximately \$3.5 million for a total of \$26.9 million on a combined proforma basis. Sales included in the Company's fiscal 2013 results were approximately \$298,000 and a loss of \$76,000 due to acquisition costs which totaled approximately \$100,000. These costs are reflected in the general and administrative line of the Statement of Operations for fiscal 2013.

#### 11. Foreign Sales

In fiscal 2013 and fiscal 2012, the Company had export sales of approximately \$5.0 million and \$8.6 million, respectively, made primarily to customers in North America, Asia and Europe. All foreign sales are denominated in U.S. dollars. Sales to specific countries, stated as a percentage of total sales, consist of the following:

	2013		2012	
Canada	0	%	2	%
China	3	%	6	%
Germany	1	%	2	%
Israel	1	%	--	
Italy	8	%	15	%
Japan	4	%	1	%
Singapore	1	%	--	
Sweden	1	%	--	
United Kingdom	1	%	--	
All other countries	1	%	3	%
Total export sales	21	%	29	%

#### 12. Employees' Retirement Plan

The Company maintains a 401(k) Plan which is qualified under the Internal Revenue Code. All full-time employees are eligible to participate in the plan after six months of full time employment. Employees may make voluntary contributions to the plan, which are matched by the Company at the rate of \$1.00 for every \$1.00 of employee contribution up to 3% of wages, and \$.50 for every \$1.00 of employee contributions on the next 2% of wages, subject to certain limitations. Employer contributions are fully vested when earned.

During the last two fiscal years, the Company's matching program has been in effect. Effective April 1, 2013, the Company match portion of the 401(k) program was suspended for cost savings reasons. The Company contributions and administration costs were approximately \$283,000 and \$282,000 for fiscal 2013 and fiscal 2012, respectively.



## 13. Income Taxes

At March 31, 2013, the Company had net operating loss carry forwards (NOL's) of approximately \$23.1 million for Federal income tax purposes and \$5.5 million for state income tax purposes that expire at various dates between 2013 and 2033. The tax laws related to the utilization of loss carry forwards are complex and the amount of the Company's loss carry forward that will ultimately be available to offset future taxable income may be subject to annual limitations under IRC Section 382 resulting from changes in the ownership of the Company's common stock.

The Company performed an analysis to determine whether an ownership change under Section 382 of the Internal Revenue Code had occurred. The effect of an ownership change would be the imposition of an annual limitation on the use of the net operating loss carry forwards attributable to periods before the change. As of March 31, 2013, the Company believes there are no limitations on the use of these Federal NOLs.

At March 31, 2013, the Company's net deferred tax asset before consideration of a valuation allowance was approximately \$11.1 million, mainly consisting of net operating loss carry-forwards which expire at various amounts over an approximate 20 year period. In assessing the realizability of deferred tax assets, the Company has determined that at this time it is "more likely than not" that deferred tax assets will not be realized, primarily due to uncertainties related to its ability to utilize the net operating loss carry-forwards before they expire based on the negative evidence of losses over the past three years, outweighing the positive evidence of income projections in future years. The ultimate realization of these deferred tax assets is dependent upon the generation of future income during those periods in which those temporary differences become deductible or within the periods before NOL carry forwards expire. As of both March 31, 2013 and 2012, the Company recorded a full valuation allowance on its net deferred tax asset.

Below are reconciliations between the provisions for income taxes compared with the amounts at the United States federal statutory rate:

Years Ended	March 31, 2013	March 31, 2012
Federal income tax at statutory rates	\$ (1,537,000 )	\$ (718,000 )
State income taxes, net of federal benefit	(368,000 )	(14,000 )
Expiration of NOL carry-forwards	204,000	418,000
Change in valuation allowance	1,925,000	634,000
Change in R&D credit carry-forwards	(287,000 )	(269,000 )
Permanent items	60,000	(51,000 )
Foreign rate differential	3,000	0
Effective income tax	\$ 0	\$ 0

Foreign pretax earnings were not material in fiscal 2013 or 2012.

The Company's net deferred tax assets (liabilities) consisted of the following components, as of March 31, 2013 and 2012:

	2013	2012
Sec. 263A adjustment	\$ 37,000	\$ 37,000
Inventory adjustments	777,000	704,000
Utility accruals	8,000	2,000
Warranty reserve	25,000	9,000
Accounts receivable allowance	11,000	14,000
Accrued vacation	122,000	129,000



Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Accrued professional fees	37,000		44,000
Accrued commissions	10,000		1,000
Charitable contributions	8,000		6,000
NOL carry forwards	8,194,000		7,349,000
Basis difference of intangibles	(920,000	)	(1,258,000
Basis difference of equipment	(745,000	)	(750,000
R&D credits	3,379,000		2,681,000
Goodwill amortization	74,000		91,000
California Mfg. credit	39,000		39,000
AMT credit	20,000		20,000
Loss on Debt Extinguishment	0		33,000
Total	\$ 11,076,000		\$ 9,151,000
Valuation allowance	(11,076,000	)	(9,151,000
Net deferred tax asset	\$ 0		\$ 0

At March 31, 2013, the Company's Federal and State R&D tax credit carry forwards totaled approximately \$3.4 million. These will expire annually at March 31 over the next twenty years.

#### 14. Commitments & Contingencies

##### Leases

The Company leases all of its executive offices, research, marketing and manufacturing facilities under non-cancellable operating leases.

The lease for the approximate 40,000 square foot facility located in Camarillo, California was amended in December 2008 and is now leased through February 2014. The lease payment adjusts annually based on the change in the Consumer Price Index (CPI).

In 2001, the Company entered into a 10-year lease for its Ann Arbor, MI facility with two 5-year options to renew at a lease rate tied to the CPI, with a minimum increase for each 5-year option. The original lease included the right of first refusal to purchase the facility and was scheduled to expire in May 31, 2011. In January 2010, the Company amended the lease terms and extended the lease to May 31, 2021. The new lease represents a 19% reduction in lease payments over the new lease term, or approximately \$1.6 million in savings. The Company retained the right of first refusal to purchase the property during the new lease term. In addition, the Company negotiated an option to purchase the facility on May 31, 2016 for no less than \$7.1 million. Rent decreased from \$58,689 per month to \$50,754 per month commencing January, 2010 through May, 2011, then will decrease to \$48,238 per month from June, 2011 through May, 2016 and will increase to \$52,432 in June, 2016 through the remainder of the lease term.

With the acquisition of substantially all the operating assets of Silonex on March 1, 2013, the Company assumed approximately 6,000 square feet of research, manufacturing and administrative floor space in Montreal Canada. This space is subject to annual renewal on the amount of space and rent each May.

Minimum future lease payments under all non-cancellable operating leases are as follows:

2014	\$950,000
2015	579,000
2016	583,000
2017	621,000
2018	629,000
Thereafter	1,992,000
Total	\$5,354,000

Rent expense was approximately \$1,007,000 and \$998,000 in fiscal 2013 and fiscal 2012, respectively.

#### Legal

The Company is, from time to time, subject to legal and other matters in the normal course of its business. While the results of such matters cannot be predicted with certainty, management does not believe that the final outcome of any pending matters will have a material effect on the financial position and results of operations of the Company.

#### 15. Quarterly Financial Data

The table below lists financial information (unaudited) by quarter for each of the two fiscal years ended March 31, 2013 and 2012.

2013	First	Second	Third	Fourth	Total Year
Sales, Net	\$ 6,216,000	\$ 5,586,000	\$ 5,834,000	\$ 6,013,000	\$ 23,649,000
Cost of Products Sold	3,972,000	3,612,000	3,381,000	3,858,000	14,823,000
Gross Profit	2,244,000	1,974,000	2,453,000	2,155,000	8,826,000
Research & Development Expenses	1,371,000	1,342,000	1,558,000	1,412,000	5,683,000
Sales, Marketing, General & Administrative Expenses	1,558,000	1,615,000	1,614,000	1,560,000	6,347,000
Net Loss	\$ (993,000 )	\$ (1,287,000 )	\$ (1,026,000 )	\$ (1,081,000 )	\$ (4,387,000 )
Basic and Diluted Loss per Common Share	\$ (0.03 )	\$ (0.04 )	\$ (0.03 )	\$ (0.03 )	\$ (0.14 )
Weighted Average Common Shares Outstanding	31,161,000	31,161,000	31,161,000	31,161,000	31,161,000
2012	First	Second	Third	Fourth	Total Year
Sales, Net	\$ 8,120,000	\$ 8,352,000	\$ 6,518,000	\$ 6,505,000	\$ 29,495,000
Cost of Products Sold	4,742,000	4,785,000	3,828,000	4,282,000	17,637,000
Gross Profit	3,378,000	3,567,000	2,690,000	2,223,000	11,858,000
Research & Development Expenses	1,692,000	1,714,000	1,660,000	1,475,000	6,541,000
Sales, Marketing, General & Administrative Expenses	2,116,000	2,207,000	1,890,000	1,768,000	7,981,000
Net Income (Loss)	\$ 18,000	\$ (254,000 )	\$ (812,000 )	\$ (1,064,000 )	\$ (2,112,000 )
Basic and Diluted Income (Loss) per Common Share	\$ 0.00	\$ (0.01 )	\$ (0.03 )	\$ (0.03 )	\$ (0.07 )
Weighted Average Common Shares Outstanding	30,687,000	30,827,000	30,972,000	31,006,000	30,873,000

#### Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

#### Item 9A. CONTROLS AND PROCEDURES

Disclosure Controls

Our Chief Executive Officer and Chief Financial Officer (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 the Company's disclosure controls and procedures (as such terms are defined in Exchange Act Rules 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 Annual Report and believe that the Company's disclosure controls and procedures are effective based on the required evaluation.

**Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including the Certifying Officers, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of March 31, 2013 based on the criteria set forth in Internal Control – Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the criteria set forth in Internal Control – Integrated Framework (1992), our management concluded that our internal control over financial reporting was effective as of March 31, 2013.

This Annual Report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. We were not required to have, nor have we engaged our independent registered public accounting firm to perform, an audit on our internal control over financial reporting pursuant to the rules of the Securities and Exchange Commission that permit us to provide only managements' report in this Annual Report.

**Changes in Internal Controls**

During our most recent fiscal quarter, there has not occurred any change in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. OTHER INFORMATION**

Not Applicable

## PART III

In accordance with General Instruction G (3), and except for certain of the information called for by Items 10 and 12 which is set forth below, the information called for by Items 10 through 14 of Part III is incorporated by reference from the Company's definitive proxy statement (Proxy Statement) to be filed pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934 in connection with the Company's 2013 Annual Meeting of Stockholders.

## Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

## Code of Ethics

The Company has adopted a Code of Ethical Conduct for Senior Financial Officers, pursuant to the Sarbanes-Oxley Act of 2002. The Code of Ethics is published on the Company's web site, [www.advancedphotonix.com](http://www.advancedphotonix.com) on the Investor Relations page. The Company will also provide a copy of the Code of Ethics to any person without charge upon his or her request. Any such request should be directed to our Secretary at 2925 Boardwalk, Ann Arbor, Michigan 48104. The Company intends to make all required disclosures concerning any amendments to or waivers from the Code of Ethics on its website.

The response to the remainder of this item is incorporated by reference from the Company's Proxy Statement.

## Item 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference from the Company's Proxy Statement.

## Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth, as of March 31, 2013, the aggregated information pertaining to all securities authorized for issuance under the Company's equity compensation plans:

Plan Category	Number of Securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance	
Equity compensation plans approved by shareholders	2,391,835	\$ 1.66	263,295	(1)
Equity compensation plans not approved by shareholders	-	-	-	
Total	2,391,835	\$ 1.66	263,295	(1)

o (1) Represents shares issuable upon the grant of restricted stock and stock options.

The response to the remainder of this item is incorporated by reference from the Company's Proxy Statement.

## Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The response to this item is incorporated by reference from the Company's Proxy Statement.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The response to this item is incorporated by reference from the Company's Proxy Statement.

## PART IV

## Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following is a list of the financial statements, schedules and exhibits filed herewith.

(1) Financial Statements: No financial statements have been filed with this Form 10-K other than those listed in Item 8.

(2) Financial Statement Schedules: The following additional financial statement schedule is furnished herewith pursuant to the requirements of Form 10-K.

SCHEDULE II  
ADVANCED PHOTONIX, INC.

Valuation and Qualifying Accounts

	March 31, 2012	Charged to Expense	Additions Charged to Other Accounts	Deductions	March 31, 2013
Allowance for doubtful accounts	\$ 39,000	\$ --	\$ 24,000(1)	\$ (7,000 )	\$ 56,000
Warranty reserves	\$ 24,000	\$ 51,000	\$ --	\$ (12,000 )	\$ 63,000
Deferred tax valuation allowance	\$ 9,151,000	\$ 1,925,000	\$ --	\$ --	\$ 11,076,000
(1)Recorded as part of the Silonex acquisition					

	March 31, 2011	Charged to Expense	Additions Charged to Other Accounts	Deductions	March 31, 2012
Allowance for doubtful accounts	\$47,000	\$--	\$--	\$(8,000 )	\$39,000
Warranty reserves	\$51,000	\$4,000	\$--	\$(31,000 )	\$24,000
Deferred tax valuation allowance	\$8,517,000	\$634,000	\$--	\$--	\$9,151,000

All other schedules for which provisions are made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions, or are disclosed in the accompanying consolidated financial statements, or are inapplicable and, therefore, have been omitted.

(3) Exhibits: The following is a list of the exhibits filed as part of this Form 10-K.



Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Exhibit Number	Description
2.1	Asset Purchase Agreement by and among Advanced Photonix, Inc., Advanced Photonix Canada, Inc. and Silonex Inc. dated March 1, 2013 – incorporated by reference to Exhibit 2.1 to the Registrant’s Form 8-K, filed March 7, 2013
3.1	Certificate of Incorporation of the Registrant, as amended - incorporated by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form S-1, filed on November 23, 1990
3.1.1	Amendment to Certificate of Incorporation of the Registrant, dated September 9, 1992 – incorporated by reference to the Registrant's March 31, 1996 Annual Report on Form 10-K
3.1.2	Amendment to Certificate of Incorporation of the Registrant, dated October 29, 1992 – incorporated by reference to the Registrant's March 31, 1996 Annual Report on Form 10-K
3.1.3	Amendment to Certificate of Incorporation of the Registrant, dated August 22, 2008 – incorporated by reference to Exhibit 3.1.3 to the Registrant’s August 16, 2010 Quarterly Report on Form 10-Q
3.2	By-laws of the Registrant, as amended October 16, 2012 – incorporated by reference to Exhibit 3.1 to the Registrant’s Form 8-K as filed on October 18, 2012
10.1	Form of Indemnification Agreement provided to Directors and Principal Officers of Advanced Photonix, Inc. – incorporated by reference to Exhibit 10.15 to the Registrant’s December 28, 1997 Quarterly Report on Form 10-Q
10.2	Employment Agreement dated August 19, 2011 between Advanced Photonix, Inc. and Jeffrey Anderson – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on August 19, 2011
10.3	Amendment 1 dated February 28, 2013 to Employment Agreement dated August 19, 2011 between Advanced Photonix, Inc. and Jeffrey Anderson – incorporated by reference to Exhibit 10.1 of the Registrant’s Form 8-K filed March 7, 2013
10.4	Employment Agreement dated August 19, 2011, between Advanced Photonix, Inc. and Richard Kurtz – incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed on August 19, 2011
10.5	Amendment 1 dated February 28, 2013 to Employment Agreement dated August 19, 2011 between Advanced Photonix, Inc. and Richard Kurtz – incorporated by reference to Exhibit 10.2 of the Registrant’s Form 8-K filed March 7, 2013
10.6	Employment Agreement dated August 19, 2011, between Advanced Photonix, Inc. and Robin Risser – incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed on August 19, 2011
10.7	Amendment 1 dated February 28, 2013 to Employment Agreement dated August 19, 2011 between Advanced Photonix, Inc. and Robin Risser – incorporated by reference to Exhibit 10.3 of the Registrant’s Form 8-K filed March 7, 2013
10.8	

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Employment Agreement dated August 19, 2011, between Advanced Photonix, Inc. and Steve Williamson – incorporated by reference to Exhibit 10.4 to the Registrant’s Form 8-K, filed on August 19, 2011

- 10.9      Amendment 1 dated February 28, 2013 to Employment Agreement dated August 19, 2011 between Advanced Photonix, Inc. and Steve Williamson – incorporated by reference to Exhibit 10.4 of the Registrant’s Form 8-K filed March 7, 2013
- 10.10     Advanced Photonix, Inc. 1997 Employee Stock Option Plan – incorporated by reference to Exhibit 10.13 to the Registrant’s March 30, 1997 Annual Report on Form 10-K
- 10.11     Amendment No. 1 to 1997 Employee Stock Option Plan of Advanced Photonix, Inc. – incorporated by reference to Exhibit 10.14 to the Registrant’s December 28, 1997 Quarterly Report on Form 10-Q

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

- 10.12 Advanced Photonix, Inc. Executive Incentive Compensation Plan (amended and restated as of March 6, 2009) – incorporated by reference to Exhibit 10.47 to the Registrant’s Form 10-K, filed on June 29, 2009
- 10.13 Advanced Photonix, Inc. 2000 Stock Option Plan, as amended – incorporated by reference to Exhibit 10.1 to the Registrant's December 30, 2011 Quarterly Report on Form 10-Q, filed on February 13, 2012
- 10.14 Advanced Photonix, Inc. 2007 Equity Incentive Plan – incorporated by reference to Exhibit 10.5 to the Registrant's Annual Report for the period ending March 31, 2012 on Form 10-K, filed on June 29, 2012
- 10.15 Form of Director Restricted Stock Agreement under the 2007 Equity Incentive Plan – incorporated by reference to Exhibit 4.4 to the Registrant's Form S-8 on Registration Statement No. 333-147012, filed on October 30, 2007
- 10.16 Form of Employee Restricted Stock Agreement under the 2007 Equity Incentive Plan – incorporated by reference to Exhibit 4.5 to the Registrant's Form S-8 on Registration Statement No. 333-147012, filed on October 30, 2007
- 10.17 Form of Employee Stock Option Agreement under the 2007 Equity Incentive Plan – incorporated by reference to Exhibit 10.3 to the Registrant's December 30, 2011 Quarterly Report on Form 10-Q, filed on February 13, 2012
- 10.18 Amended and Restated Securities Purchase Agreement dated November 29, 2010, by and among Advanced Photonix, Inc., Robin F. Risser and Steven Williamson - incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed December 2, 2010
- 10.19 Class A Class A Common Stock Purchase Warrant dated November 30, 2010, between Advanced Photonix, Inc. and Robin F. Risser - incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed December 2, 2010
- 10.20 Class A Class A Common Stock Purchase Warrant dated November 30, 2010, between Advanced Photonix, Inc. and Steven Williamson - incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed December 2, 2010
- 10.21 Convertible Loan Agreement dated September 15, 2004 between Picometrix, LLC and the Michigan Economic Development Corporation – incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed on October 30, 2008
- 10.22 First Amendment to Convertible Loan Agreement dated December 2, 2004 between Picometrix, LLC and the Michigan Economic Development Corporation – incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed on October 30, 2008
- 10.23 Second Amendment to Convertible Loan Agreement dated March 17, 2005 between Picometrix, LLC and the Michigan Economic Development Corporation – incorporated by reference to Exhibit 10.4 to the Registrant’s Form 8-K, filed on October 30, 2008
- 10.24 Amended and Restated Promissory Note (Line of Credit) dated March 17, 2005 by Picometrix, Inc. in favor of the Michigan Economic Development Corporation – incorporated by reference to Exhibit 10.4 to the Registrant’s Form 8-K, filed on October 30, 2008



Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

- 10.25 Second Amended and Restated Promissory Note dated September 23, 2008 by Picometrix, LLC – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on October 30, 2008
- 10.26 Loan Agreement, dated September 15, 2005, between Picometrix, LLC and the Michigan Economic Development Corporation – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on September 16, 2005
- 10.27 Debt Conversion Agreement entered into as of May 19, 2010, by and among Picometrix, LLC, Advanced Photonix, Inc. and Michigan Economic Development Corporation incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on May 25, 2010
- 10.28 Debt Conversion Agreement entered into as of May 19, 2010, by and among Picometrix, LLC, Advanced Photonix, Inc., Michigan Economic Development Corporation and Michigan Strategic Fund incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed on May 25, 2010
- 10.29 Continuing Security Agreement dated September 25, 2008 between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.4 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.30 Continuing Guaranty dated September 25, 2008 by Picometrix, LLC and Silicon Sensors, Inc. for the benefit of The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.5 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.31 Form of Patent, Trademark and Copyright Security Agreement between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.6 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.32 Loan Agreement dated September 25, 2008 between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.33 First Amendment to Loan Agreement dated May 29, 2009 between Advanced Photonix, Inc. and The PrivateBank and Trust Company. – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on June 3, 2009
- 10.34 Second Amendment dated June 25, 2010 to the Loan Agreement between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.59 to the Registrant’s March 31, 2010 Annual Report on Form 10-K
- 10.35 Third Amendment dated August 27, 2010 to the Loan Agreement between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed August 27, 2010
- 10.36 Fourth Amendment dated November 30, 2010 to the Loan Agreement between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.6 to the Registrant’s Form 8-K, filed December 2, 2010
- 10.37

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Fifth Amendment dated September 23, 2011 to the Loan Agreement between Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed September 26, 2011

- 10.38 Promissory Note (Line of Credit – Prime) dated September 25, 2008 by Advanced Photonix, Inc. in favor of The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.39 Second Amendment dated June 25, 2010 to the Promissory Note (Line of Credit – Prime) by Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.61 to the Registrant’s March 31, 2010 Annual Report on Form 10-K
- 10.40 Amendment dated September 23, 2011 to the Promissory Note (Line of Credit - Prime) by Advanced Photonix, Inc. in favor of The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed September 26, 2011
- 10.41 Promissory Note (Term Loan – Prime) dated September 25, 2008 by Advanced Photonix, Inc. in favor of The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed on September 29, 2008
- 10.42 Second Amendment dated June 25, 2010 to the Promissory Note (Term Loan – Prime) by Advanced Photonix, Inc. and The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.60 to the Registrant’s March 31, 2010 Annual Report on Form 10-K
- 10.43 Amendment dated September 23, 2011 to the Promissory Note (Term Loan-Prime) by Advanced Photonix, Inc. in favor of The PrivateBank and Trust Company – incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed September 26, 2011
- 10.44 Securities Purchase Agreement dated November 4, 2010, by and between Advanced Photonix, Inc. and In-Q-Tel, Inc. - incorporated by reference to Exhibit 10.1 to the Registrants Form 10-Q, filed on February 14, 2011
- 10.45 Letter Agreement dated November 4, 2010, executed by Advanced Photonix, Inc. in favor of In-Q-Tel, Inc. - incorporated by reference to Exhibit 10.2 to the Registrants Form 10-Q, filed on February 14, 2011
- 10.46 Development Agreement dated November 12, 2010, by and among Advanced Photonix, Inc., Picometrix, LLC and In-Q-Tel, Inc. - incorporated by reference to Exhibit 10.3 to the Registrants Form 10-Q, filed on February 14, 2011
- 10.47 Royalty Agreement dated November 12, 2010, by and among Advanced Photonix, Inc., Picometrix, LLC and In-Q-Tel, Inc. - incorporated by reference to Exhibit 10.4 to the Registrants Form 10-Q, filed on February 14, 2011
- 10.48 Loan and Security Agreement dated January 31, 2012 by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed February 3, 2012
- 10.49 First Amendment dated October 25, 2012 to Loan and Security Agreement by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC – incorporated by reference to Exhibit 10.1 of the Registrant’s Form 8-K filed October 26, 2012
- 10.50

Edgar Filing: ADVANCED PHOTONIX INC - Form 10-K

Second Amendment dated February 8, 2013 to Loan and Security Agreement by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC – incorporated by reference to Exhibit 10.3 of the Registrant’s Form 8-K filed February 14, 2013



- 10.51 Loan and Security Agreement (EX-IM Loan Facility) dated as of January 31, 2012 by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC – incorporated by reference to Exhibit 10.2 to the Registrant’s Form 8-K, filed February 3, 2012
- 10.52 First Amendment dated October 25, 2012 to Loan and Security Agreement (EX-IM Loan Facility) dated as of January 31, 2012 by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC – incorporated by reference to Exhibit 10.2 of the Registrant’s Form 8-K filed October 26, 2012
- 10.53 Second Amendment dated February 8, 2013 to Loan and Security Agreement (EX-IM Loan Facility) by and among Silicon Valley Bank, Advanced Photonix, Inc. and Picometrix, LLC– incorporated by reference to Exhibit 10.4 of the Registrant’s Form 8-K filed February 14, 2013
- 10.54 Export-Import Bank of the United States Working Capital Guarantee Program Borrower Agreement dated as of January 31, 2012 made by Advanced Photonix, Inc. and Picometrix, LLC in favor of the Export Import Bank of the United States and Silicon Valley Bank – incorporated by reference to Exhibit 10.3 to the Registrant’s Form 8-K, filed February 3, 2012
- 10.55 Loan and Security Agreement dated as of February 8, 2013 by and among Partners For Growth III, L.P., Advanced Photonix, Inc. and Picometrix LLC – incorporated by reference to Exhibit 10.1 of the Registrant’s Form 8-K filed February 14, 2013
- 10.56 Lease Agreement dated February 23, 1998 between Advanced Photonix, Inc. and High Tech No. 1, Ltd. – incorporated by reference to Exhibit 10.9 to the Registrant’s March 29, 1998 Annual Report on Form 10-K
- 10.57 Fourth Addendum & Extension Agreement, dated January 8, 2010, between Picometrix, LLC and Jagar, L.L.C. – incorporated by reference to Exhibit 10.1 to the Registrant’s Form 8-K, filed on January 13, 2010
- 10.58 Form of PFG Warrant Agreement to Purchase Class A Common Stock dated February 12, 2013 – incorporated by reference to Exhibit 10.2 of the Registrant’s Form 8-K filed February 14, 2013
- 21.1 List of Subsidiaries of Registrant
- 23.1. Consent of BDO USA, LLP
- 31.1 Certification of the Registrant’s Chairman, Chief Executive Officer and Director pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of the Registrant’s Chairman, Chief Financial Officer and Director pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification 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.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

By: /s/ Richard Kurtz  
Chief Executive Officer and  
President

Date: July 1, 2013

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Richard D. Kurtz Richard D. Kurtz	President, Chief Executive Officer and Director (Principal Executive Officer)	July 1, 2013
/s/ Robin Risser Robin Risser	Chief Operating Officer and Director	July 1, 2013
/s/ Jeff Anderson Jeff Anderson	Chief Financial Officer (Principal Financial and Accounting Officer)	July 1, 2013
/s/ M. Scott Farese M. Scott Farese	Director	July 1, 2013
/s/ Lance Brewer Lance Brewer	Director	July 1, 2013
/s/ Donald Pastor Donald Pastor	Director and Chairman of the Board	July 1, 2013
/s/ Stephen P. Soltwedel Stephen P. Soltwedel	Director	July 1, 2013