

ADVANCED PHOTONIX INC  
Form 10-K  
June 29, 2009

**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, 2009  
OR**

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

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

**Commission file number 1-11056**

**ADVANCED PHOTONIX, INC.**<sup>®</sup>  
(Exact name of registrant as specified in its charter)

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

**33-0325826**  
(I.R.S. Employer  
Identification No.)

**2925 Boardwalk, Ann Arbor, Michigan 48104, (734) 864-5600**  
(Address and telephone number of principal executive offices)

**Securities registered pursuant to Section 12(b) of the Act:**  
None

**Securities registered pursuant to Section 12(g) of the Act:**  
**Class A Common Stock, par value \$.001 per share**  
(Title of class)

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 Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

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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 any 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. (Check one):

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of September 26, 2008 was approximately \$39,107,833.

Number of shares outstanding of the registrant's Common Stock as of June 24, 2009: 24,284,726 shares of Class A Common Stock and 31,691 shares of Class B Common Stock.

### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement to be filed pursuant to Regulation 14A promulgated under the Securities Exchange Act of 1934 in connection with the 2009 Annual Meeting of Stockholders of registrant have been incorporated by reference into Part III of this Form 10-K.

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### ADVANCED PHOTONIX, INC. ANNUAL REPORT ON FORM 10-K FISCAL YEAR ENDED MARCH 31, 2009

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**PART I**

*The information in this annual report contains certain forward-looking statements, including statements related to our business prospects, the markets for our products, and trends in our business that involve risks and uncertainties. Our actual results may differ materially from the results discussed in these forward-looking statements. Factors that might cause such a difference include those discussed in [Risk Factors](#), [Management's Discussion and Analysis of Financial Condition and Results of Operations](#), [Business](#) and elsewhere in this annual report.*

**Item 1. Business****General**

Advanced Photonix, Inc.<sup>®</sup> (the Company, we or API), was incorporated under the laws of the State of Delaware in June 1988. The Company is engaged in the development and manufacture of optoelectronic devices and value-added sub-systems and systems. The Company serves a variety of global Original Equipment Manufacturers (OEMs), in a variety of industries. The Company supports the customers from the initial concept and design phase of the product, through testing to full-scale production. The Company has two manufacturing facilities located in Camarillo, California and Ann Arbor, Michigan.

**Products and Technology****Our Business**

API is a leading supplier of optoelectronic semiconductors packaged into high-speed optical receivers, custom optoelectronic subsystems and Terahertz instrumentation, serving a variety of global OEM markets. Our patented high-speed optical receivers include Avalanche Photodiode technology (APD) and PIN 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 (positive-intrinsic-negative) photodiode, FILTRODE<sup>®</sup> detectors and LED assemblies. Our newly emerging Terahertz sensor product line is targeted at the industrial Non-Destructive Testing (NDT), quality control, 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 application development laboratory to the factory floor.

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,
- 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,
- 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 (THz) systems, subsystems, transmitters and receivers, and
- Femtosecond laser pulse control and system integration.

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## 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 (Transceiver). 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) which are packaged InP, InAlAs, or GaAs PIN and/or APD photodiodes with amplifiers
- 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<sup>®</sup> technology integrating optical filters directly on photodiode chips
- Terahertz Systems & subsystems utilizing III-V materials for Terahertz transmitters &/or receivers

## Terahertz Technology

The newest technology the Company is pursuing is Terahertz (THz) or the Company's T-Ray<sup>®</sup> technology. THz is a region of the electromagnetic (EM) Spectrum that is just beginning to be explored. THz lies between microwave and infrared waves on the EM spectrum. 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<sup>®</sup> instrumentation for the research market and as a result

application/market development of THz technology has recently accelerated. 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 and has been determined to have 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 over 47 patents or patents pending to date. In 2001, we sold the first commercial THz product, the T-Ray<sup>®</sup> 2000 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, the Company shipped its next generation THz imaging and spectroscopy system (T-Ray<sup>®</sup> 4000). The T-Ray<sup>®</sup> 4000 is significantly smaller, lighter, and more powerful than previous THz generations and incorporates significant technological advancements. The system is 55 pounds and is the size of a briefcase, which is a significant reduction from the 800 pound refrigerator size QA 1000. This system is targeted at the research and industrial NDT quality control market. The T-Ray<sup>®</sup> 4000 product will also serve as a platform for future industrial process and quality control, homeland security and defense applications.

## 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
- Instrumentation
- Display

### Medical:

- Diagnostic & Monitoring
- Ophthalmic Equipment
- Medical Imaging

### Telecommunications:

- Telecom Equipment
- Test and Measurement

Homeland Security:

- Baggage/Cargo Scanning
- Passenger Screening

**Recent Developments**

The Company began consolidating semiconductor fabrication into its Ann Arbor, Michigan facility in June 2006. Approximately \$2.3 million has been spent to date for operating expenses and \$1.9 million for capital expenditures for this consolidation. The Company anticipates spending less than \$100,000 in additional operating expense in FY 2010 to complete the re-provisioning of the previous wafer fabrication operations in Camarillo, California to assembly and test facilities. As a result, the Company estimates, the total consolidation operating expenses will be \$2.4 million upon completion of the project.

**Raw Materials**

The principal raw materials used by the Company in the manufacture of its semiconductor components and sensor assemblies 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 and a variety of packages and substrates, including metal, printed circuit board, flex circuits, ceramic and plastic packages. All of these raw materials, except high speed specialized semiconductor amplifiers, can be obtained from several suppliers. High speed specialized semiconductor amplifiers used in our HSOR components are typically sole sourced. 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. However, the Company has not been materially affected by such shortages. As is typical in the industry, the Company allows for a significant lead-time (2 months or greater) between order and delivery of raw materials.

**Research and Development**

Since its inception in June 1988, the Company has 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 2009 and 2008, research and development expenses amounted to \$4.7 million and \$4.2 million, respectively. The Company expects that an increase in research and development funding will be required for new projects/products as well as the continuing development of new derivatives of the Company's current product line. The Company has in the past, and will continue to pursue customer funded, as well as internally funded, research and development projects when they are in support of the Company's development objectives.

As the Company begins the new 2010 fiscal year, the following research and development projects are currently underway:

- HSOR - next generation photodiodes and high-speed optical receivers for both the 40G and 100G telecommunications market,
- 40G DPSK and DQPSK long haul and metro markets
- 40G NRZ short reach market
- 100G DP-QPSK long haul and metro markets
- 100G NRZ short reach market

- Cost Reduction and performance enhancements through vertical integration of strategic 40G and 100G components
- THz
- Application development utilizing the T-Ray® 4000 product platform for industrial quality and process control targeted at the aerospace, pharmaceutical and consumer product markets,
- T-Ray® 4000 cost reduction and durability initiatives for high volume industrial QC markets
- T-Ray® 4000 product platform research and development for homeland security/military markets
- Custom optoelectronics - Si PIN and APD photodiode developments to meet unique customer requirements, such as higher speeds, lower electrical noise, and unique multi-element geometries.

### **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 the Company maintain certain environmental permits. The Company believes that it has obtained all necessary environmental permits required to conduct its 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**

The Company's 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 costs, direct and indirect, incurred by the Company, as well as a reasonable allowance for anticipated profits. No assurance can be given that the Company will receive these amounts after cancellation.

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

### **Marketing**

The Company markets its products in the United States and Canada through its own technical sales engineers and through independent sales representatives. International sales, including Europe, the Middle East, Far East and Asia, are conducted direct and through foreign distributors and representatives. The Company's products are primarily sold as components or sub-assemblies to OEMs. The Company markets its products and capabilities through industry specific channels, including the Internet, industry trade shows, and in print through trade journals.

### **Competition**

In its target markets, the Company competes with different companies in each of its product platforms; custom optoelectronic, high-speed optical receiver and THz systems. The Company believes that its principal competitors for sales of custom optoelectronic products are small private companies and medium size public companies. In

the high-speed optical receiver market the Company believes that its competitors are small private companies and medium to large size public companies. Because the THz product offering includes developing technology applications and markets, the Company believes the competition is mainly from small private companies and divisions of large public companies.

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

### Proprietary Technology

The Company utilizes proprietary design rules and processing steps in the development and fabrication of its PIN and APD photodiodes, THz transmitters and receivers, fiber-coupled THz subsystems/systems, and THz applications. The Company has a significant number of patents pending and owns the following patents and registered trademarks:

Patent #	Title	Issued Date
142,195	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (US)	Apr 2005
660,471	HIGHLY-DOPED P-TYPE CONTRACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (KOREA)	Apr 2005
765,715	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (AUSTRIA)	Jan 2006
766,174	ENHANCED PHOTODETECTOR (KOREA)	Oct 2005
809,655	METHOD AND APPARATUS TO MONITOR PHASE CHANGES IN MATTER WITH TERAHERTZ RADIATION (KOREA)	Fel 2006
811,365	PLANAR AVALANCHE PHOTODIODE (KOREA)	Fel 2006
817,638	FOCUSING FIBER OPTIC (KOREA)	Mar 2006
934,665	TRADEMARK APPLICATION FOR T-RAY TRADEMARK (MADRID PROTOCOL)	Aug 2006
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (EP)	Oct 2006
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (FRANCE)	Oct 2006
1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (GREAT BRITAIN)	Oct 2006

1,116,280	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (ITALY)	Oct 2006
DE69937406	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (GERMANY)	Oct 2006
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (EP)	Aug 2006
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (AUSTRIA)	Aug 2006
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (FRANCE)	Aug 2006
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (ITALY)	Aug 2006
1,230,578	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (GREAT BRITAIN)	Aug 2006
1,570,306	PRECISION FIBER ATTACHMENT (EP)	Aug 2006
1,570,306	PRECISION FIBER ATTACHMENT (ITALY)	Aug 2006
1,570,306	PRECISION FIBER ATTACHMENT (FRANCE)	Aug 2006
1,570,306	PRECISION FIBER ATTACHMENT (GREAT BRITAIN)	Aug 2006
AT406589	PRECISION FIBER ATTACHMENT (AUSTRIA)	Aug 2006
DE60323261	PRECISION FIBER ATTACHMENT (GERMANY)	Aug 2006
1,963,580	PICOMETRIX TRADEMARK	Mar 2007
2,345,153	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE (CANADA)	Mar 2007
4,180,824	COMPACT FIBER PIGTAIL TERAHERTZ IMAGING SYSTEM (JAPAN)	Sep 2007
4,717,946	THIN LINE JUNCTION PHOTODIODE (by Predecessor Co.)	Jan 2008
4,782,382	HIGH QUANTUM EFFICIENCY PHOTODIODE DEVICES (by Predecessor Co.)	Nov 2007
5,021,854	SILICON AVALANCHE PHOTODIODE ARRAY	Jun 2008



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5,057,892	LIGHT RESPONSIVE AVALANCHE DIODE	Oct
5,146,296	DEVICES FOR DETECTING AND/OR IMAGING SINGLE PHOTOELECTRON	Sep
5,311,044	AVALANCHE PHOTOMULTIPLIER TUBE	May
5,477,075	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Dec
5,757,057	LARGE AREA AVALANCHE ARRAY	May
5,801,430	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Sep
6,005,276	SOLID STATE PHOTODETECTOR WITH LIGHT RESPONSIVE REAR FACE	Dec
6,029,988	COMPACT FIBER PIGTAILED TERAHERTZ IMAGING SYSTEM (GREAT BRITAIN)	Aug
6,111,299	ACTIVE LARGE AREA AVALANCHE PHOTODIODE ARRAY	Aug
6,262,465	HIGHLY-DOPED P-TYPE CONTACT FOR HIGH-SPEED, FRONT-SIDE ILLUMINATED PHOTODIODE	Jul
6,320,191	A DISPERSIVE PRECOMPENSATOR FOR USE IN AN ELECTROMAGNETIC RADIATION GENERATION AND DETECTION SYSTEM	Nov
6,816,647	COMPACT FIBER PIGTAILED TERAHERTZ IMAGING SYSTEM	Nov
6,849,852	SYSTEM AND METHOD FOR MONITORING CHANGES IN STATE OF MATTER WITH TERAHERTZ RADIATION	Feb
6,936,821	AMPLIFIED PHOTOCONDUCTIVE GATE	Aug
7,039,275	FOCUSING FIBER OPTIC	May
7,078,741	HIGH-SPEED ENHANCED RESPONSIVITY PHOTO DETECTOR	Jul
7,263,266	PRECISION FIBER ATTACHMENT	Aug
7,348,607	PLANAR AVALANCHE PHOTODIODE	Mar
7,348,608	PLANAR AVALANCHE PHOTODIODE	Mar
7,449,695	TERAHERTZ IMAGING SYSTEM FOR EXAMINING ARTICLES	Nov
7,468,503	PIN PHOTODETECTOR	Dec

There can be no assurance that any issued patents will provide the Company with significant competitive advantages, or that challenges will not be instituted against the validity or enforceability of any patent owned by the Company, 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 the Company's technology will not infringe on patents or rights owned by others, licenses to which might not be available to the Company. Based on limited patent searches, contacts with others knowledgeable in the field of the Company's technology, and a review of the published materials, the Company believes that its competitors hold no patents, licenses or other rights to technology which would preclude the Company from pursuing its intended operations.

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In some cases, the Company may rely on trade secrets to protect its 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 Company projects, disputes might arise as to the proprietary rights to such information which may not be resolved in favor of the Company.

### Employees

As of June 24, 2009 the Company had 153 full time employees (including 3 officers). Included are 33 engineering and development personnel, 9 sales and marketing personnel, 94 operations personnel, and 17 general and administrative personnel (including 3 officers). The Company 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.

### 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**

#### **The overall negative economic climate could adversely affect the liquidity and financial condition of our customers and our business.**

We believe that many factors affect our industry, including consumer confidence in the economy, interest rates, fuel prices and credit availability. 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 the current general economic downturn.

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

Recent global market and economic conditions have been unprecedented and challenging with tighter credit conditions and recession in most major economies. Continued concerns about the systemic impact of potential long-term and wide-spread recession, energy costs, geopolitical issues, the availability and cost of credit, and the global housing and mortgage markets have contributed to diminished expectations for western and emerging economies. These conditions, combined with volatile oil prices, declining business and consumer confidence and increased unemployment, have contributed to market volatility of unprecedented levels.

As a result of these market conditions, the cost and availability of credit has been and may continue to be adversely affected by illiquid credit markets and wider credit spreads. Concern about the stability of the markets generally and the strength of counterparties specifically has led many lenders and institutional investors to reduce, and in some cases, cease to provide credit to businesses and consumers. This turbulence in the U.S. and international markets and economies has caused certain of our network subsystem and system customers, as well as their network service provider customers, to delay, reduce or cancel capital expenditures. Continued turbulence in the U.S. and international markets and economies and prolonged declines in business consumer spending may adversely affect our liquidity and financial condition, and the liquidity and financial condition of our customers, including our ability to refinance maturing liabilities and access the capital markets to meet liquidity needs.

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#### **We are dependent upon several suppliers for a significant portion of raw materials used in the manufacturing of our products and any significant interruption could have a material adverse affect on our manufacturing.**

The principal raw materials we use in the manufacture of our semiconductor components and sensor assemblies are silicon and III-IV wafers, chemicals and gases used in processing wafers, gold wire, lead frames, specialized semiconductor amplifiers, 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. High speed specialized semiconductor amplifiers used in our HSOR components are typically sole sourced. From time to time, particularly during periods of increased industry-wide demand, silicon wafers, specialized semiconductor amplifiers and other materials have been in short supply. Any significant interruption in the supply of these raw materials could have a material adverse affect on the Company.

#### **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 the Company.

**Our inability to find new customers and 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 not feasible. 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 manufacture of the product 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, but any such delay, cancellation or modification could have a negative effect on our results of operations.

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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 the control of our company or our customers, and, as a result, 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.**

A growing amount 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, the Company utilizes third-party distributors to act as our representative for the geographic region that they have been assigned. Sales through distributors represent approximately 5% of total revenue. 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 transfers title to the distributor at the time of shipment by the Company, 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.

**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.

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.

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**The markets for many of our products are characterized by changing technology which could cause obsolescence of our 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 or result in short product life cycles. Accordingly, our ability to compete is in part dependent on our ability to continually offer enhanced and improved products.

**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.

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

In FY 2009, approximately 31% of our sales were related to products and services purchased by military contractors. Our business depends upon continued federal government expenditures on defense, intelligence, aerospace and other programs that we support. In FY 2009, our sales to military contractors increased 109%. In addition, foreign military sales are affected by U.S. government regulations, regulations by the purchasing foreign government and political uncertainties in the U.S. and abroad. There can be no assurance that the U.S. defense and military budget will continue to grow or that sales of defense related items to foreign governments will continue at present levels. In addition, 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 that we sell our products to could

have a material adverse affect on the Company.

**Our industry is highly competitive and fragmented, which can result in future competitors against which we cannot compete.**

We compete with a range of companies for the custom optoelectronic requirements of customers in our target markets. We believe that our principal competitors for sales of our products are small to medium size companies. 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.

**Decreases in average selling prices of our products may reduce operating profit and net income, 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. Recently, we have observed a modest acceleration in the decline of average selling prices. 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, 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 and operating profit to decline.

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In the current environment of declining average selling prices, and especially when such declines appear to be accelerating, we must continually seek ways to reduce our costs to maintain our operating profit and net income. Our cost reduction efforts may not allow us to 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 maintain our operating profit and net income.

**Shifts in our product mix may result in declines in operating income and net income.**

Our gross profit margins vary among our product platforms, and are generally higher on our HSOR and Terahertz products. Our overall operating income 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.

**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. We believe that 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.

**If we are unable to protect our intellectual property rights adequately, the value of our products could be diminished.**

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. We utilize proprietary design rules and processing steps in the development and fabrication of our PIN photodiodes, APD photodiodes and our THz systems and sensors. In addition, our products rely upon over 105 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 PIN photodiodes, APD photodiodes and THz technology will not infringe on patents or rights owned by others, licenses to which might not be available to us. Based on limited patent searches, contacts with others knowledgeable in the field of PIN photodiodes, APD photodiodes and our THz technology, and a review of the published materials, we believe that our competitors hold no patents, licenses or other rights to the PIN photodiodes, APD photodiodes and our THz technology which would preclude us from pursuing our intended operations.

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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.

**Our failure to protect our intellectual property may significantly harm our business.**

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. Although a number of patents have been issued to us and we have obtained a number of other patents as a result of our acquisitions, we cannot assure you that our issued patents will be upheld if challenged by another party. Additionally, with respect to any patent applications that we have filed, we cannot assure you that any patents will issue as a result of these applications. If we fail to protect our intellectual property, we may not receive any return on the resources expended to create the intellectual property or generate any competitive advantage based on it.

**Pursuing infringers of our intellectual property rights can be costly.**

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. In addition, the laws of some foreign countries do not protect our proprietary rights to the same extent as do the laws of the United States. 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. Furthermore, policing the unauthorized use of our products is difficult and expensive. Litigation may be necessary in the future to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. The resulting costs and diversion of resources could significantly harm our business. If we fail to protect our intellectual property, we may not receive any return on the resources expended to create the intellectual property or generate any competitive advantage based on it.

**Third parties may claim we are infringing their intellectual property rights and we could be prevented from selling our products, or suffer significant litigation expense, even if these claims have no merit.**

Our competitive position is driven in part by our intellectual property and other proprietary rights. Third parties, however, 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.

In addition, from time to time we receive letters from third parties that allege we are infringing their intellectual property and asking us to license such intellectual property, and we review the merits of each letter. Any litigation regarding patents, trademarks, copyrights or other intellectual property rights, even those without merit, could be costly and time consuming, and divert our management and key personnel from operating our business. The complexity of the technology involved and inherent uncertainty and cost of intellectual property litigation increases our risks. If any third-party has a meritorious or successful claim that we are infringing its intellectual property rights, we may be forced to change our products or manufacturing processes or enter into licensing arrangement with third parties, which may be costly or impractical, particularly in the event we are subject to a contractual commitment to continue supplying impacted products to our customers. This also may require us to stop selling our products as currently engineered, which could harm our competitive position. We also may be subject to significant damages or injunctions that prevent the further development and sale of certain of our products or services and may result in a material decrease in sales.

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**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 its 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.**

Over the past four years, we have acquired one business and we continually explore opportunities to acquire related businesses, some of which could be material to us. 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.

**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 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 ordinary shares;
- 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 Class A Common Stock.

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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 Class A Common Stock in the public market could lower our stock price, and conversion of our warrants and any additional capital raised by us may dilute your ownership in the Company.**

We may sell additional shares of Class A 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 Class A Common Stock. We cannot predict the size of future issuances of our Class A Common Stock or the effect, if any, that future issuances and sales of shares of our Class A Common Stock will have on the market price of our Class A Common Stock. Sales of substantial amounts of our Class A 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 Class A Common Stock.

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

Sales of substantial amounts of our Class A Common Stock in the public market could decrease the prevailing market price of our Class A 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.**

We have never declared or paid any cash dividends on our Class A Common Stock. 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.

## **Item 2. Properties**

The Company leases all of its executive offices, research, marketing and manufacturing facilities under non-cancellable operating leases. At March 31, 2009, those leases consisted of approximately 90,100 square feet in two facilities. The lease for our facility located in Camarillo, California was amended in December 2008 and is now leased through February 2014. Our facility located in Ann Arbor, Michigan is comprised of the corporate office and the Picometrix LLC manufacturing plant and is leased through June 2011, with two five year options to renew at the current lease rate with a CPI adjuster. In addition, the Company has the right of first refusal to



purchase the facility. The Company believes that its existing facilities are adequate to meet its needs for the foreseeable future.

### Item 3. Legal Proceedings

None

### Item 4. Submission of Matters to a Vote of Security Holders

No matters were submitted to a vote of our stockholders during the fourth quarter ended March 31, 2009.

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## PART II

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

The Company's Class A Common Stock is traded on the NYSE Amex (AMEX) under the symbol "API".

#### Stock Performance Graph

The graph below provides an indicator of our cumulative total stockholder return as compared with the AMEX Composite Index and the AMEX Technology Index. The graph assumes an initial investment of \$100. The graph covers a period of time beginning in March 28, 2004, through March 31, 2009, which represents the last trading day of the year.

At June 24, 2009, the Company had 120 holders of record for the Class A Common Stock (including shares held in street name), representing approximately 5,000 beneficial owners of the Class A Common Stock.

#### Quarterly Stock Market Data

The following table sets forth the high and low closing prices of the Company's Class A Common Stock by quarter for fiscal years 2009 and 2008.

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	Common Stock Price							
	1 <sup>st</sup> Quarter		2 <sup>nd</sup> Quarter		3 <sup>rd</sup> Quarter		4 <sup>th</sup> Quarter	
	2009	2008	2009	2008	2009	2008	2009	2008
Common Stock <sup>1</sup>								
<b>High</b>	\$ 1.90	\$ 1.99	\$ 2.00	\$ 2.20	\$ 2.00	\$ 2.84	\$ 1.08	\$ 1.87
<b>Low</b>	\$ 1.01	\$ 1.55	\$ 1.36	\$ 1.43	\$ .67	\$ 1.70	\$ .62	\$ 1.30

<sup>1</sup> Price ranges on the AMEX.

The Company has never paid any cash dividends on its capital stock. The Company intends to retain earnings, if any, for use in its business and does not anticipate that any funds will be available for the payment of cash dividends on its outstanding shares in the foreseeable future. The holders of Common Stock will not be entitled to receive dividends in any year until the holders of the Class A Redeemable Convertible Preferred Stock receive an annual non-cumulative dividend preference of \$.072 per share. To date, a total of 740,000 shares of Class A Redeemable Convertible Preferred Stock have been converted into 222,000 shares of Class A Common Stock, leaving outstanding 40,000 shares of Class A Redeemable Convertible Preferred Stock. The aggregate non-cumulative annual dividend preference of such Class A Redeemable Convertible Preferred Stock is \$2,880.

There is no public market for the Company's Class A Redeemable Convertible Preferred Stock or Class B Common Stock; however, such stock is convertible into Class A Common Stock at the option of the holder and upon transfer by the holder of the Class A Redeemable Convertible Preferred Stock.

## **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.*

### **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. Management uses 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 allowances, impairment costs, depreciation and amortization, warranty costs, taxes and contingencies. Management has 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.

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### **Global Economic Conditions**

The credit markets and the financial services industry continue to experience a period of significant disruption characterized by the bankruptcy, failure, collapse or sale of various financial institutions, increased volatility in securities prices, severely diminished liquidity and credit availability and a significant level of intervention from the United States and other governments. Continued concerns about the systemic impact of potential long-term or widespread recession, energy costs, geopolitical issues, the availability and cost of credit, the global commercial and residential real estate markets and related mortgage markets and reduced consumer confidence have contributed to increased market volatility and diminished expectations for most developed and emerging economies continuing into 2009. As a result of these market conditions, the cost and availability of credit has been and may continue to be adversely affected by illiquid credit markets and wider credit spreads. Continued turbulence in the United States and international markets and economies could restrict our ability to refinance our existing indebtedness, increase our costs of borrowing, limit our access to capital necessary to meet our liquidity needs and materially harm our operations or our ability to implement our business strategy.

### **Revenue Recognition**

Revenue is derived principally from the sales of the Company's products. The Company recognizes revenue when the basic criteria of Staff Accounting Bulletin No. 104 are met. Specifically, the Company recognizes revenue when persuasive evidence of an arrangement exists, usually in the form of a purchase order, when shipment has occurred since its terms are FOB source, or when services have been rendered, title and risk of loss have passed to the customer, 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 Company accrues the estimated exposure to warranty claims based upon historical claim costs. The Company's management reviews these estimates on a regular basis and adjusts the warranty provisions as actual experience differs from historical estimates or as other information becomes available.

The Company does not provide price protection or general right of return. The Company's 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 discretion of the Company and are recorded when and if determined.

The Company predominantly sells directly to original equipment manufacturers with a direct sales force. The Company sells in limited circumstances through distributors. Sales through distributors represent approximately 5% of total revenue. 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 transfers title to the distributor at the time of shipment by the Company, 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, 2008 and March 31, 2009, 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.

In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, goodwill and intangible assets that are not subject to amortization shall be tested for impairment annually, or more frequently if events or changes in circumstances indicate that the asset might be impaired. The impairment test shall consist of a comparison of the fair value of the asset with its carrying amount, as defined. SFAS 142 requires a two-step method for determining goodwill impairment. Step one 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 asset exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess.

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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 common stock over a 10-day period before and a 10-day period after each assessment date. We use this 20-day duration to consider inherent market fluctuations that may affect any individual closing price. We believe that our 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 related to our company to our market capitalization.

The Company's evaluation as of March 31, 2008 and March 31, 2009, indicated there were no impairments. As of March 31, 2008, our market capitalization, calculated as described above, was \$31.8 million and our carrying value, including goodwill, was \$19.7 million. Because market capitalization significantly exceeded our carrying value, our estimate of the control premium was not a determining factor in the outcome of step one of the impairment assessment. For FY 2009, our market capitalization calculated as described as above, had fallen to \$17.1 million and our carrying value, including goodwill, had decreased to \$17.9 million. We applied a 25% control premium to market capitalization to determine a fair value of \$21.4 million. We believe that including a control premium at this level is supported by recent transaction data in our industry. Absent the inclusion of a control premium greater than 4% for FY 2009, our carrying value would have exceeded fair value, requiring a step two analysis which may have resulted in an impairment of goodwill.

As evidenced above, our stock price and control premium are significant factors in assessing our fair value for purposes of the goodwill impairment assessment. Our 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. Significant turmoil in the financial markets and weakness in macroeconomic conditions globally have recently contributed to volatility in our stock price and a significant decline in our stock price during the fourth quarter of FY 2009. Our stock price has fluctuated from a high of \$1.08 to a low of \$0.62 during the fourth quarter of FY 2009. On numerous occasions during the fourth quarter, our stock price was high enough that our market capitalization exceeded our carrying value without giving effect to a control premium. The current macroeconomic environment, however, 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 recent stock price decline persists and our market capitalization remains below our carrying value for a sustained period, it is reasonably likely that a goodwill impairment assessment prior to the next annual review in the fourth quarter of fiscal 2010 would be necessary and an impairment of goodwill may be recorded. A non-cash goodwill impairment charge would have the affect of decreasing our earnings or increasing our losses in such period. If we are required to take a substantial impairment charge, our operating results would be materially adversely affected in such period.

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-lived Assets*, the carrying value of long-lived assets, including amortizable intangibles and property 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 are less than the carrying value of the asset. The estimated cash flows include management's assumptions of cash inflows and outflows directly resulting from the use of that asset in operations. The amount of the impairment loss recognized is equal to the excess of the carrying value of the asset over its then estimated fair value. The Company's evaluation for the fiscal year ended March 31, 2009, indicated there were no impairments.

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### **Accounting for Income Taxes**

Income tax provisions are provided 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. 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 SFAS No. 109 *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. The Company forecasts taxable income through its 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 its design wins, Company 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. The Company has substantial history, more than 10 years in most cases, with its customers and its market on which its forecasts are based.

At March 31, 2009, our net deferred tax asset before consideration of a valuation allowance was approximately \$7.3 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 its recent years history of losses, including tax losses in two of the last three years and cumulative taxable losses over the past three years, outweighing the positive evidence of taxable 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, 2009 and 2008, the Company recorded a full valuation allowance on its net deferred tax assets.

For the year ended March 31, 2009, we incurred taxable losses that increased our net operating loss carry-forwards. In evaluating our net deferred tax assets at March 31, 2009, we considered the negative evidence that we had taxable losses in each of the past three years. Because evidence such as our operating results during

the most recent historical periods is afforded more weight than forecasted results for future periods, our recent losses and cumulative loss position during our most recent three-year period represents sufficient negative evidence of the need for a full valuation allowance at March 31, 2009.

### Inventories

The Company's inventories are stated at the lower of standard cost (which approximates actual cost under the first-in, first-out method) or market. Slow moving and obsolete inventories are reviewed throughout the year. To calculate a reserve for obsolescence, we begin with a review of our slow moving inventory. Any inventory, which has been slow moving within the past 12 months, is evaluated and reserved if deemed appropriate. In addition, any residual inventory, which is customer specific and remaining on hand at the time of contract completion, is reserved for at the standard unit cost. 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 reserved for. Additionally, non-cancelable open purchase orders for parts we are obligated to purchase where demand has been reduced may be reserved. Reserves for open purchase orders where the market price is lower than the purchase order price are also established. If a product that had previously been reserved for is subsequently sold, the amount of reserve specific to that item is then reversed.

### Results of Operations

#### *Fiscal Year Ended March 31, 2009 Compared to Fiscal Year Ended March 31, 2008*

### Revenues

The Company predominantly operates in one industry segment, light and radiation detection devices that it sells to multiple markets including telecommunications, industrial sensing/NDT, military/aerospace, medical, and homeland security. Revenues by market consisted of the following:

	<u>Year ended</u>			
	<b>March 31, 2009</b>		<b>March 31, 2008</b>	
Telecommunications	\$ 6,003,000	21%	\$ 5,247,000	22%
Industrial Sensing/NDT	11,327,000	38%	10,095,000	44%
Military/Aerospace	9,215,000	31%	4,412,000	19%
Medical	2,107,000	7%	3,132,000	14%
Homeland Security	1,023,000	3%	329,000	1%
Total Revenues	\$ 29,675,000	100%	\$ 23,215,000	100%

The Company's revenues for FY 2009 were \$29.7 million, an increase of \$6.5 million, or 28% from revenues of \$23.2 million for the FY 2008. The Company had growth in four of its five markets during FY 2009, offset by a reduction in medical market revenue as compared to FY 2008.

Telecommunications sales were \$6.0 million, an increase of \$756,000 or 14% from FY 2008. This increase was the result of increased demand for the 40G client side products. The Company's telecommunications revenues in the fourth quarter experienced a slow down as our customers responded to the recession by implementing inventory reduction programs and delaying second source initiatives for the 40G line side products. Based on customer guidance, the reduced demand was not the result of changing underlying market demand for 40G infrastructure capacity expansion and as a result we expect customer inventory reduction programs to be completed in the first quarter of FY 2010 and a return to more normal growth for the balance of the fiscal year.

Industrial Sensing/NDT market revenues were \$11.3 million in FY 2009, an increase of 12% (or \$1.2 million) from FY 2008 revenues of \$10.1 million. The increase was due to increased sales of non-destructive testing equipment utilizing our proprietary terahertz technology. The Company's Industrial Sensing/NDT revenue in the fourth quarter experienced a slow down as our customers responded to reduced demand as the result of the recession and our customers delayed capital expenditures which delayed purchases of our terahertz products.

Military/Aerospace market revenues were \$9.2 million, an increase of 109% (or \$4.8 million) from the comparable prior year revenues of \$4.4 million. This increase was primarily attributable to customer orders received in the current year which had been delayed from the prior year, as well as increased demand.

Medical market revenues decreased \$1.0 million or 33% from the prior year of \$3.1 million. This decrease was primarily a result of the Company's decision to eliminate business at a customer that did not meet its profitability criteria.

Homeland security increased 211% or \$694,000, to \$1,023,000, due to an increase in a THz development contract for the nuclear gauge replacement from the Department of Homeland Security.

### **Gross Profit**

Gross Profit was \$12.9 million (or 44% of revenue), compared to the prior year of \$8.9 million (or 38% of revenue), an increase of 46%. The improvement in gross profit was due primarily to the increased volume and favorable product mix, combined with cost reductions achieved through our facilities consolidation.

The Company believes that gross margins in FY 2010 should continue to improve as a result of cost reductions from our facilities consolidation that was completed in FY 2009, the phase out of low margin products, increased revenue from the telecommunication market driven by our 40G and 100G products, and increased revenue from our terahertz product platform.

### **Operating Expenses**

*Research and Development expenses (R&D)* -- The Company's R&D costs increased by \$458,000 (or 11%) on revenue increases of 28%. R&D expenses were \$4.7 million (16% of sales) during FY 2009 compared to \$4.2 million (18% of sales) in FY 2008. The increase was attributable to the Company's planned increased R&D spending as we continued to focus on new opportunities in our high growth High Speed Optical Receiver and THz product platforms. The majority of this increase was funded by increased R&D contract revenue. The Company expects to continue to increase investment in the next generation 40G/100G HSOR products and THz applications in FY 2010 in order to gain HSOR market share and move THz from the laboratory to the factory floor.

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*Sales and Marketing expenses (S&M)* [The Company's S&M expenses increased \$347,000 (or 15%) to \$2.7 million (9% of sales) in FY 2009 compared to \$2.3 million (10% of sales) in FY 2008. The increase was primarily attributable to the increased compensation and travel expense related to field sales activity necessary on a 28% increase in revenue in FY 2009. The Company has and will continue to focus its sales and marketing activity for the growing Telecom and Industrial/NDT markets. As a result, further increases in sales and marketing expenses are expected in future periods.

*General and Administrative expenses (G&A)* -- G&A expenses increased by \$278,000 (6%) to approximately \$4.9 million (16% of sales) for FY 2009 as compared to \$4.6 million (20% of sales) for FY 2008. These increases were primarily the result of higher compensation expense, terahertz royalties, and depreciation expense as the result the new company wide ERP system installed during the year, offset by increased State of Michigan refund for MEGA job creation tax credits. The ERP system was installed to improve efficiency, standardize systems between locations and assist in simplifying Sarbanes-Oxley Section 404 compliance. Currently, the Company is required to be compliant with the external reporting requirements of Section 404 by the end of fiscal year 2010. External costs required to be in compliance are therefore expected to materially increase in FY 2010.

Amortization expense was \$2.1 million in FY 2009 compared to \$2.0 million in FY 2008, an increase of \$118,000. This increase was primarily the result of the Company's use of the estimated cash flow methodology for its intangible assets in the amount of \$111,000 and an approximately \$7,000 increase in patent amortization expense.

Other operating expenses decreased \$1.5 million as a result of a decrease in non-recurring wafer fabrication consolidation expenses of \$1.0 million and the Wisconsin facility closure expenses of \$534,000. Wafer fabrication consolidation expenses to our Ann Arbor facility were \$300,000 in FY 2009 compared to \$1.3 million in FY 2008.

The Company's evaluations of Intangible assets and Goodwill for the year ended March 31, 2009 resulted in no impairment adjustments. In FY 2008, the Intangible assets and Goodwill evaluation resulted in no impairment

adjustments.

### **Financing and Other Income (Expense), net**

Interest income for FY 2009 decreased \$68,000 to approximately \$28,000, compared to \$96,000 in FY 2008, due primarily to lower cash balances available for short-term investment and lower interest rates in FY 2009.

Interest expense for FY 2009 was \$405,000 as compared to \$2.5 million in FY 2008, a decrease of \$2.1 million. This decrease was primarily attributable to a \$1.9 million decrease in the interest expense and amortization of the discount related to the convertible notes which were paid off or converted to equity in Q3 2008. In addition, the Company's interest expense was \$176,000 lower on the related party notes and other notes. This decrease was primarily due to reduced debt and lower interest rates.

Net loss for FY 2009 was \$2.0 million, as compared to net loss of \$9.6 million in FY 2008, an improvement of \$7.6 million. This improvement was primarily attributable to higher gross margins of \$4.1 million, the decrease in interest expense of \$2.1 million, lower provision for income taxes of \$1.2 million and lower wafer fabrication relocation and facility closure expenses of \$1.5 million, offset by higher other operating expenses of \$1.2 million. During the year ended March 31, 2008, the company recorded a full valuation allowance on its net deferred tax assets and recognized an income tax provision of approximately \$1.2 million.

### **Liquidity and Capital Resources**

At March 31, 2009, the Company had cash and cash equivalents of \$2.1 million, an increase of \$2.0 million from \$0.1 million as of March 31, 2008, primarily attributable to cash generated from operations of \$2.7 million and from investing activities of \$93,000, offset by a reduction in cash from financing activities of \$759,000.

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### **Operating Activities**

Net cash provided by operating activities of \$2.7 million for the year ended March 31, 2009 was primarily the result of net cash provided by operations of \$1.4 million and net cash provided by changes in operating assets and liabilities of \$1.3 million. The net cash provided by operations included a net loss of \$2.0 million, offset by net cash generated of \$3.4 million from depreciation, amortization and stock based compensation. Changes in operating assets and liabilities were primarily a result of reduced inventories of \$462,000 and increased accrued expenses of \$912,000.

Net cash used in operating activities of \$3.4 million for the year ended March 31, 2008 was primarily the result of a cash net loss of \$3.3 million comprised of a net loss of \$9.6 million, of which \$6.3 million was non-cash expenses. This net cash loss was increased by \$30,000 changes in operating assets and liabilities comprised of a decrease in accounts receivable of \$385,000, inventories of \$308,000 and prepaid/other assets of \$111,000, offset by a decrease in accounts payable and accrued expenses of \$834,000.

### **Investing Activities**

Net cash provided by investing activities was approximately \$93,000 for the year ended March 31, 2009. The amount consisted of capital expenditures of approximately \$722,000, and patent expenditures of \$186,000, offset by a \$1.0 million lower restricted cash balance required under a new bank loan agreement.

Net cash used in investing activities was approximately \$1.3 million for the year ended March 31, 2008. The amount consisted of capital expenditures of approximately \$1.2 million and patent expenditures were \$195,000 for the 2008 fiscal year.

### **Financing Activities**

The Company used \$759,000 of net cash from financing activities in FY 2009, primarily to reduce debt, including a net reduction in bank debt and capital lease obligations of \$268,000 and payments to related parties of \$450,000. The net reduction in bank debt included the payoff of the capital lease obligation of \$1.9 million under the prior bank agreement, financed primarily by the bank term loan of \$1.7 million under the new bank agreement.

On March 6, 2007, the Company and Fifth Third Bank entered into a Revolving Line of Credit (the Loan Agreement) providing for borrowings of up to a maximum of \$2.0 million at the interest rate equal to the prime rate. On November 13, 2007, the Loan Agreement was amended to increase the principal amount available to

\$3.0 million. At March 31, 2008, the Company did not meet the debt service coverage ratio covenant and the Loan Agreement was subsequently amended on June 30, 2008 to reduce the principal amount available to \$2.5 million and to amend the interest rate to be equal to prime plus 2%.

On September 25, 2008, the Company terminated the Loan Agreement with Fifth Third Bank and established a credit facility with The PrivateBank and Trust Company. As part of this new banking relationship, the Company established a three year Line of Credit of \$3.0 million at an interest rate of prime plus 1%, adjusted quarterly. The prime rate at March 31, 2009 was 3.25%. The new facility contains customary representations, warranties and financial covenants including minimum debt service coverage ratio, Adjusted EBITDA level, and Net Worth requirements (as defined in the agreement). The principal loan amount, is due on September 25, 2011, provided that if existing loans to the Company by the Michigan Economic Development Corporation have not converted to equity on or before August 31, 2011, the outstanding principal shall be due on August 31, 2011. The availability under the new facility will be determined by the calculation of a borrowing base that includes a percentage of accounts receivable and inventory.

At March 31, 2009, the Company was in compliance with the debt service coverage ratio and Net Worth requirements, but was not in compliance with the Adjusted EBITDA level. The Company has received a waiver from the bank regarding the default and entered into an amendment to the loan agreement on May 29, 2009 effective March 31, 2009. According to the terms of the amended loan agreement, the Adjusted EBITDA level is measured on a year to date basis for the June 30, 2009, September 30, 2009, December 31, 2009 and March 31, 2010 test dates and thereafter on a trailing four quarter basis. In addition, the Debt Service Coverage ratio and the Net Worth covenants were amended. The amended minimum Debt Service Coverage ratio is 1.0 to 1.0 for the first quarter, 1.25 to 1.0 for the second quarter and 1.5 to 1.0 thereafter. The amended minimum Net Worth covenant is \$15.5 million and will increase by 10% of Net Income for each fiscal year that the Company reports net income.

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The line of credit is guaranteed by each of API's wholly-owned subsidiaries and the loan is secured by a Security Agreement among API, its subsidiaries and The PrivateBank, pursuant to which API and its subsidiaries granted to The PrivateBank a first-priority security interest in certain described assets. The outstanding balance as of March 31, 2009 is \$1.4 million.

The Company generated net cash from financing activities in FY 2008 of \$3.0 million including increases in cash from financing activities of \$6.3 million offset by decreases in financing activities of \$3.3 million. The increase of cash resulted from the private placement of Company Class A common stock of \$4.3 million, \$227,000 from the exercise of warrants and stock options for Company common stock, net increase in the bank line of credit of \$559,000, and the net increase in the MEDC term loans of \$790,000, offset by the retirement of convertible notes of \$2.4 million, and the reduction in related parties notes payable of \$550,000.

#### **Debt**

As a result of the acquisition of Picotronix, Inc. (dba Picometrix, Inc.), the Company issued promissory notes to the stockholders of Picometrix, (Debt to Related Parties). At March 31, 2009, the remaining balance on the notes was \$1.4 million. The notes are payable in annual installments of varying amounts through March 2010 as amended in FY 2009. The notes bear interest at a rate of prime plus 1.0% and are secured by all of the intellectual property of Picometrix. API has the option of prepaying the notes without penalty.

In March 2007, API, as Lessee, entered into a Master Equipment Lease Agreement with Fifth Third Leasing Company, as Lessor, to finance the purchase of new manufacturing equipment up to an aggregate of \$2,300,000 (Lease). API purchased equipment under the Lease until June 30, 2007. This lease was accounted for as a capital lease in accordance with SFAS No. 13. On September 25, 2008, the Company retired the Master Equipment Lease Agreement with Fifth Third Leasing Company by paying the remaining principal amount of \$1,736,000.

On September 25, 2008, the Company established a new credit facility with The PrivateBank and Trust Company. As part of this banking relationship, in addition to the line of credit described above, the Company established an Equipment Installment Loan of \$1.736 million amortized over a term of four years, at an interest rate of prime plus 1%. The principal loan amount is due on September 25, 2012, provided that if existing loans to the Company by the Michigan Economic Development Corporation have not converted to equity on or before August 31, 2011, the Loan shall be due on August 31, 2011. The Company utilized the Equipment Installment loan to retire the Master Equipment Lease Agreement with Fifth Third Leasing Company. The balance on this term loan at March



31, 2009 was \$1.6 million.

The Company was not in compliance with the Adjusted EBITDA level requirements. The Company has received a waiver from the bank regarding the default. Based on the amended loan covenants, the Company anticipates that it will meet the loan covenants during FY 2010, and as a result has classified the current and future maturities in accordance with the loan agreement.

The Michigan Economic Development Corporation (MEDC) entered into two loan agreements with Picometrix LLC, one in fiscal 2004 (MEDC-loan 1) and one in fiscal 2005 (MEDC-loan 2). Both loans are unsecured.

The MEDC-loan 1 is \$1,025,000 with an interest rate of 7%. Under the original terms of the promissory note, interest accrued but unpaid through October 2008 would be added to then outstanding principal balance of the note and the restated principal would be amortized over the remaining four years (September 15, 2012). Effective September 23, 2008, the MEDC-loan 1 of \$1,025,000 was amended and restated to change the start date of repayment of principal and interest from October 2008 to October 2009. Commencing in October 2009, the Company will pay MEDC the restated principal and accrued interest on any unpaid balance over the remaining three years.

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MEDC-loan 2 is \$1.2 million with an interest rate of 7%. Under the original terms of the promissory notes, interest accrued, but unpaid in the first two years of this agreement was added to the then outstanding principal of this promissory note. During the third year of this agreement, the Company was to pay interest on the restated principal of the Note until October 2008, at which time the Company was to repay the restated principal over the remaining three years (September 15, 2011). Effective January 26, 2009, the MEDC-loan 2 of \$1.2 million was amended and restated to change the start date of repayment of principal and interest from October 2008 to November 2009 and to extend the repayment period to October 2012. The current and long-term portions included in the March 31, 2009 balance sheet have been classified based on the terms of the January 2009 amendment.

The Company believes that current cash levels combined with cash generated from operations, our revolving line of credit and additional debt or equity financing will be sufficient for our 2010 fiscal year.

### Summary of Contractual Obligations and Commitments

The following table sets forth the contractual obligations of the Company at March 31, 2009.

Contractual Obligations	Total	Payments due by period			Mo tha 5 yea \$
		Within 1 year	1 □ 3 years	3 □ 5 years	
Bank line of credit	\$ 1,394,000	\$ -	\$ 1,394,000	\$ -	\$
Bank term loan	1,555,000	434,000	1,121,000	-	
Long-term MEDC loans	2,224,000	353,000	1,871,000	-	
Debt to related parties	1,401,000	1,401,000	-	-	
<b>Subtotal □ Balance Sheet</b>	<b>6,574,000</b>	<b>2,188,000</b>	<b>4,386,000</b>	-	
Expected interest expense on current debt obligations	744,000	331,000	413,000	-	
Operating lease obligations	3,560,000	1,101,000	2,077,000	382,000	
Purchase obligations	1,322,000	1,322,000	-	-	
<b>Total</b>	<b>\$ 12,200,000</b>	<b>\$ 4,942,000</b>	<b>\$ 6,876,000</b>	<b>\$ 382,000</b>	<b>\$</b>

### Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (SFAS No. 157), which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and

expands disclosures about fair value measurements. This Statement is effective for the fiscal years beginning after November 15, 2007. However, in February 2008, the FASB issued FASB Statement of Position (FSP) FAS No. 157-2, *Effective Date of FASB Statement No. 157*. This FSP delays the effective date of SFAS No. 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually) to fiscal years beginning after November 15, 2008 and interim periods within those fiscal years. The adoption of SFAS No. 157 did not have a material impact on our consolidated financial statements.

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In October 2008, the FASB issued FSP FAS No. 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active* (FAS No. 157-3) with an immediate effective date, including prior periods for which financial statements have not been issued. FSP FAS No. 157-3 clarifies the application of fair value in inactive markets and allows for the use of management's internal assumptions about future cash flows with appropriately risk-adjusted discount rates when relevant observable market data does not exist. The objective of FAS No. 157 has not changed and continues to be the determination of the price that would be received in an orderly transaction that is not a forced liquidation or distressed sale at the measurement date. The adoption of FSP FAS No. 157-3 did not have a material effect on the Company's results of operations, financial position or liquidity.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (SFAS No. 159), which permits entities to choose to measure many financial instruments and certain other items at fair value. SFAS No. 159 also includes an amendment to SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities* which applies to all entities with available-for-sale and trading securities. This Statement is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. The adoption of this pronouncement had no impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141 (Revised 2007), *Business Combinations* (SFAS No. 141(R)). The objective of SFAS No. 141(R) is to improve reporting by creating greater consistency in the accounting and financial reporting of business combinations, resulting in more complete, comparable and relevant information for investors and other users of financial statements. SFAS No. 141(R) requires the acquiring entity in a business combination to recognize all (and only) the assets acquired and liabilities assumed in the transaction; establishes the acquisition-date fair value as the measurement objective for all assets acquired and liabilities assumed; and requires the acquirer to disclose to investors and other users all of the information they need to evaluate and understand the nature and financial affect of the business combination. SFAS No. 141(R) is effective as of the start of fiscal years beginning after December 15, 2008. Early adoption is not allowed. The adoption of SFAS No. 141(R) will change our accounting treatment for business combinations on a prospective basis beginning April 1, 2009.

In December 2007, the FASB issued SFAS No. 160, *Non-controlling Interests in Consolidated Financial Statements* (SFAS No. 160). SFAS No. 160 improves the relevance, comparability, and transparency of financial information provided to investors by requiring all entities to report non-controlling (minority) interests in subsidiaries in the same way as equity in the consolidated financial statements. Moreover, SFAS No. 160 eliminates the diversity that currently exists in accounting for transactions between an entity and non-controlling interests by requiring them to be treated as equity transactions. SFAS No. 160 is effective as of the start of fiscal years beginning after December 15, 2008. Early adoption is not allowed. Since the Company currently has no minority interest, adoption of this standard will have no impact on our financial position, results of operations or cash flows.

In December 2007, the SEC issued Staff Accounting Bulletin No. 110 (SAB No. 110) to amend the SEC's views discussed in Staff Accounting Bulletin No. 107 (SAB No. 107) regarding the use of the simplified method in developing an estimate of expected life of share options in accordance with SFAS No. 123(R). SAB No. 110 is effective for us beginning April 1, 2007. The Company currently uses reasonable estimates of expected life in accordance with SAB No. 107, as amended by SAB No. 110.

In April 2008, the FASB issued FASB Staff Position (FSP) No. FAS 142-3, *Determination of the Useful Life of Intangible Assets* (FSP No. FAS 142-3). The final FSP amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets*. The FSP is intended to improve the consistency between the useful life of an intangible asset determined under SFAS No. 142 and the period of expected cash

flows used to measure the fair value of the asset under SFAS No. 141 (revised 2007), *Business Combinations*, and other US generally accepted accounting principles. The FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The Company is currently evaluating the impact, if any, FSP No. FAS 142-3 will have on its consolidated financial statements.

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In May 2008, the FASB issued FASB Staff Position (FSP) No. APB 14-1. This FSP clarifies that convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement) are not addressed by paragraph 12 of APB Opinion No. 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*. Additionally, this FSP specifies that issuers of such instruments should separately account for the liability and equity components in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The Company is in the process of evaluating the impacts, if any, of adopting this FSP.

In June 2008, the FASB ratified the consensus reached by the Emerging Issues Task Force, EITF Issue No. 07-5, *Determining Whether an Instrument (or an Embedded Feature) Is Indexed to an Entity's Own Stock* (EITF 07-5). EITF 07-5 addresses how an entity should evaluate whether an instrument is indexed to its own stock. The consensus is effective for fiscal years (and interim periods) beginning after December 15, 2008. The consensus must be applied to outstanding instruments as of the beginning of the fiscal year in which the consensus is adopted and should be treated as a cumulative-effect adjustment to the opening balance of retained earnings. Early adoption is not permitted. The Company is in the process of evaluating the impacts, if any, of adopting this EITF.

In June 2008, the FASB issued FASB Staff Position (FSP) EITF 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities*. This FSP provides that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of basic earnings per share pursuant to the two-class method described in SFAS No. 128, *Earnings per Share*. All prior period earnings per share data presented shall be adjusted retrospectively to conform to the provisions of this FSP. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. Early application is prohibited. The Company is in the process of evaluating the impact, if any, of adopting this FSP.

In April 2009, the FASB issued FASB Staff Position (FSP) FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies*. FSP FAS 141(R)-1 provides guidance for determining the acquisition-date fair value of assets acquired and liabilities assumed in a business combination that arise from contingencies, and provides guidance on how to account for these assets and liabilities subsequent to the completion of a business combination. FSP FAS 141(R)-1 also requires increased disclosures on assets acquired and liabilities assumed in a business combination that arise from contingencies. FSP FAS 141(R)-1 is effective for assets or liabilities arising from contingencies in business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The adoption of FSP FAS 141(R)-1 will change our accounting treatment for business combinations on a prospective basis beginning April 1, 2009.

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

At March 31, 2009, most of the Company's interest rate exposure is linked to the prime rate, subject to certain limitations, offset by cash investment tied to prime rate. As such, we are at risk to the extent of changes in the prime rate and do not believe that moderate changes in the prime rate will materially affect our operating results or financial condition.

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#### **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:

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<b>Report of Independent Registered Public Accounting Firm</b>	<b>30</b>
<b>Financial Statements:</b>	
Consolidated Balance Sheets, as of March 31, 2009 and March 31, 2008	31
Consolidated Statements of Operations for the years ended March 31, 2009 and March 31, 2008	32
Consolidated Statements of Shareholders' Equity for the years ended March 31, 2009 and March 31, 2008	33
Consolidated Statements of Cash Flows for the years ended March 31, 2009 and March 31, 2008	34
Notes to Consolidated Financial Statements	35

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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, 2009 and March 31, 2008 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 for the years ended March 31, 2009 and March 31, 2008 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 audit 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, 2009 and March 31, 2008, 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 Seidman LLP  
Troy, Michigan  
June 26, 2009

**ADVANCED PHOTONIX, INC.**  
**CONSOLIDATED BALANCE SHEETS**

	March 31, 2009	March 31, 2008
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 2,072,000	\$ 1,000,000
Restricted cash	500,000	1,000,000
Accounts receivable, net of allowance for doubtful accounts of \$62,000 and \$14,000, respectively	3,284,000	3,000,000
Inventories	3,669,000	4,000,000
Prepaid expenses and other current assets	252,000	400,000
Total current assets	9,777,000	9,400,000
Equipment and leasehold improvements, net	4,322,000	4,000,000
Other assets		
Goodwill	4,579,000	4,000,000
Intangibles, net	8,975,000	10,000,000
Certificate of deposit	278,000	400,000
Security deposits and other assets	110,000	400,000
Total other assets	13,942,000	15,000,000
<b>Total Assets</b>	<b>\$ 28,041,000</b>	<b>\$ 29,000,000</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Line of credit	\$ -	\$ 1,000,000
Accounts payable	1,356,000	1,000,000
Accrued compensation	1,037,000	1,000,000
Accrued interest	513,000	400,000
Other accrued expenses	615,000	400,000
Current portion of long-term debt, related parties	1,401,000	1,000,000
Current portion of long-term debt, MEDC	353,000	400,000
Current portion of long-term debt, bank term loan	434,000	400,000
Current portion of long-term debt, capital lease obligations	--	400,000
Total current liabilities	5,709,000	5,000,000
Long-term debt, less current portion - MEDC	1,871,000	2,000,000
Long-term debt - bank line of credit	1,394,000	1,000,000
Long-term debt, less current portion - bank term loan	1,121,000	1,000,000
Long-term debt, less current portion - related parties	--	400,000
Long-term debt, less current portion - capital lease obligations	--	1,000,000
Total liabilities	10,095,000	9,000,000
Commitments and contingencies		
Shareholders' equity:		
<b>Class A redeemable convertible preferred stock</b> , \$.001 par value; 780,000 shares authorized; 40,000 shares outstanding	--	--
<b>Class A Common Stock</b> , \$.001 par value, 100,000,000 authorized; 2009 - 24,089,726 shares issued and outstanding; 2008 - 23,977,678 shares issued and outstanding	24,000	24,000
<b>Class B Common Stock</b> , \$.001 par value; 4,420,113 shares authorized, 2009 and 2008 - 31,691 issued and outstanding	--	--
Additional paid-in capital	52,400,000	52,000,000
Accumulated deficit	(34,478,000)	(32,000,000)
Total shareholders' equity	17,946,000	19,000,000
<b>Total Liabilities and Shareholders' Equity</b>	<b>\$ 28,041,000</b>	<b>\$ 29,000,000</b>

See Notes to Consolidated Financial Statements.

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**ADVANCED PHOTONIX, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**For the Fiscal Years Ended March 31, 2009 and 2008**

	<b>2009</b>	<b>2008</b>
Sales, net	\$ 29,675,000	\$ 23,215,000
Cost of products sold	16,744,000	14,340,000
Gross profit	12,931,000	8,875,000
<b>Operating expenses:</b>		
Research and development expenses	4,676,000	4,218,000
Sales and marketing expenses	2,659,000	2,312,000
General and administrative expenses	4,871,000	4,593,000
Amortization expense □ intangible assets	2,081,000	1,963,000
Dodgeville consolidation expenses	--	534,000
Wafer fabrication relocation expenses	300,000	1,256,000
Total operating expenses	14,587,000	14,876,000
Loss from operations	(1,656,000)	(6,001,000)
<b>Other income (expense):</b>		
Interest income	28,000	96,000
Interest expense on bank & MEDC loans	(311,000)	(419,000)
Interest expense related to convertible notes	--	(268,000)
Interest expense, warrant discount	--	(1,672,000)
Interest expense, related parties	(94,000)	(162,000)
Other income (expense)	(2,000)	23,000
Total other income and (expenses)	(379,000)	(2,402,000)
Loss before provision (benefit) for income taxes	(2,035,000)	(8,403,000)
<b>Provision (benefit) for income taxes:</b>		
Provision (benefit) for income taxes - deferred	--	1,225,000
Total provision (benefit) for income taxes	--	1,225,000
Net loss	\$ (2,035,000)	\$ (9,628,000)
Basic and diluted loss per share	\$ (0.08)	\$ (0.44)
Weighted average common shares outstanding	24,074,000	21,770,000

See Notes to Consolidated Financial Statements.

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**ADVANCED PHOTONIX, INC.**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**  
**For the Fiscal Years Ended March 31, 2009 and 2008**  
(In thousands, except share data)

Class A                      Class A                      Class B                      Additional

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	Common Shares	Class A Common Amount	Class A Preferred Shares	Class A Preferred Amount	Class B Common Shares	Class B Common Amount	Paid-in Capital	Accumulated Deficit	Total
<b>BALANCE, MARCH 31, 2007</b>	<b>19,226,006</b>	<b>\$ 19</b>	<b>--</b>	<b>\$ --</b>	<b>31,691</b>	<b>\$ --</b>	<b>\$ 43,887</b>	<b>\$ (22,815)</b>	<b>\$ 21,091</b>
Exercise of stock options	98,200	--	--	--	--	--	76	--	76
Reclassification of Class A Redeemable Preferred	--	--	40,000	--	--	--	32	--	32
Stock to equity	--	--	--	--	--	--	230	--	230
Stock based compensation	--	--	--	--	--	--	--	--	--
Shares issued upon conversion of notes payable	1,601,323	2	--	--	--	--	3,150	--	3,152
Warrants exercised	86,817	--	--	--	--	--	151	--	151
Issuance of common stock	2,965,332	3	--	--	--	--	4,318	--	4,321
Adjustment of discount on convertible notes (anti-dilution adjustment)	--	--	--	--	--	--	306	--	306
Net loss	--	--	--	--	--	--	--	(9,628)	(9,628)
<b>BALANCE, MARCH 31, 2008</b>	<b>23,977,678</b>	<b>\$ 24</b>	<b>40,000</b>	<b>\$ --</b>	<b>31,691</b>	<b>\$ --</b>	<b>\$ 52,150</b>	<b>\$ (32,443)</b>	<b>\$ 19,731</b>
Exercise of stock options	56,310	--	--	--	--	--	46	--	46
Issuance of restricted shares	55,738	--	--	--	--	--	--	--	--
Stock based compensation	--	--	--	--	--	--	204	--	204
Net loss	--	--	--	--	--	--	--	(2,035)	(2,035)
<b>BALANCE, MARCH 31, 2009</b>	<b>24,089,726</b>	<b>\$ 24</b>	<b>40,000</b>	<b>\$ --</b>	<b>31,691</b>	<b>\$ --</b>	<b>\$ 52,400</b>	<b>\$ (34,478)</b>	<b>\$ 17,946</b>

See Notes to Consolidated Financial Statements.

**ADVANCED PHOTONIX, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**For the fiscal years ended March 31, 2009 and 2008**

	2009	2008
<b>Cash flows from operating activities:</b>		
Net loss	\$ (2,035,000)	\$ (9,628,000)
Adjustment to reconcile net loss to net cash provided by (used in) operating activities		
Depreciation	1,157,000	1,130,000
Amortization	2,081,000	2,033,000
Stock based compensation expense	204,000	230,000
Amortization, convertible note discount	--	1,672,000
Deferred income taxes	--	1,225,000
Changes in operating assets and liabilities:		
Accounts receivable	(82,000)	385,000
Inventories	462,000	308,000
Prepaid expenses and other current assets	(57,000)	70,000
Other assets	(2,000)	41,000
Accounts payable	17,000	(62,000)
Accrued expenses	911,000	(772,000)
Net cash provided by (used in) operating activities	2,656,000	(3,368,000)
<b>Cash flows from investing activities:</b>		

Capital expenditures	(721,000)	(1,151,000)
Change in restricted cash	1,000,000	
Patent expenditures	(186,000)	(195,000)
Net cash provided by (used in) investing activities	93,000	(1,346,000)
<b>Cash flows from financing activities:</b>		
Proceeds from capital lease financing	--	433,000
Payments on capital lease financing	(1,917,000)	(383,000)
Proceeds from bank term loan	1,736,000	
Payment on bank term loan	(181,000)	
Net borrowings (repayments) on revolving line of credit	94,000	559,000
Payments of convertible note - net of conversion into common stock of \$3,150,000	--	(2,375,000)
Net proceeds (repayments) from MEDC term loan	(88,000)	790,000
Net proceeds from equity financing	--	4,321,000
Proceeds from exercise of warrants	--	151,000
Payments on related party debt	(450,000)	(550,000)
Proceeds from exercise of stock options	46,000	76,000
Net cash provided by (used in) financing activities	(759,000)	3,022,000
Net increase (decrease) in cash and cash equivalents	1,990,000	(1,692,000)
Cash and cash equivalents, beginning of year	82,000	1,774,000
Cash and cash equivalents, end of year	\$ 2,072,000	\$ 82,000
<b>Supplemental cash flow information:</b>		
	<b>2009</b>	<b>2008</b>
Cash paid for interest	\$ 265,000	\$ 745,000
Cash paid for income taxes	\$ 32,000	\$ 81,000

**Supplemental disclosure of non-cash operating, investing and financing activities**

Adjustment of discount on convertible notes (anti-dilution adjustment)	--	(306,000)
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See Notes to Consolidated Financial Statements.

**ADVANCED PHOTONIX, INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**March 31, 2009 and 2008**

**1. The Company**

Advanced Photonix, Inc.<sup>®</sup> (the Company, we or API), was incorporated under the laws of the State of Delaware in June 1988. The Company is engaged in the development and manufacture of optoelectronic devices and value-added sub-systems and systems. The Company serves a variety of global Original Equipment Manufacturers (OEMs), in a variety of industries. The Company supports the customers from the initial concept and design phase of the product, through testing to full-scale production. The Company has two manufacturing facilities located in Camarillo, California and Ann Arbor, Michigan.

**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). 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** □ Statement of Financial Accounting Standards No. (SFAS) 131, □Disclosures about Segments of an Enterprise and Related Information,□ 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 about 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 financial officer, who review financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. API has one business activity, and there are no segment managers who are held accountable for operations, operating results and plans for levels or components below the consolidated unit level, nor does API track gross margins by product, product line or market served. Accordingly, API considers its business to be in a single reportable segment. The Company's products are 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. Generally, the same engineers with the same qualifications design and manufacture products for all product lines. The types and class of customers are similar across all product lines, and products are distributed through common channels and distributor networks.

**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 financial instruments potentially subject to valuation risk (principally consisting of cash equivalents, accounts receivable, accounts payable, and debt) approximates fair value based upon the short term nature of these instruments, and in the case of debt, the prevailing interest rates available to the Company.

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

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**Compensating Cash Balance** □ During FY 2009; the Company terminated its Line of Credit loan agreement with Fifth Third Bank, which required a compensating balance of \$1.5 million and established a new Line of Credit Agreement with The PrivateBank and Trust Company with a minimum compensating balance requirement of \$500,000. This amount has been separately disclosed on the accompanying balance sheets as restricted cash.

**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 amount becomes 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, 2009, one customer comprised 10% or more of accounts receivable. As of March 31, 2008, no customer comprised 10% or more of accounts receivable.

**Concentration of Credit Risk** □ Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash equivalents and trade accounts receivable. The Company maintains cash balances at four financial institutions that are insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000. As of March 31, 2009, the Company had cash at one financial institution in excess of federally insured amounts. As excess cash is available, the Company invests in short-term and long-term investments, primarily consisting of Government Securities Money Market instruments and Repurchase agreements. As of March 31, 2009 and March 31, 2008, cash deposits held at financial institutions in excess of FDIC insured amounts were \$2.0 million and \$1.4 million, respectively.

**Inventories** □ Inventories, which include material, labor and manufacturing overhead, are stated at standard cost (which approximates the first in, first out method) or market. Slow moving and obsolete inventories are reviewed throughout the year. To calculate a reserve for obsolescence, we begin with a review of our slow moving inventory. Any inventory, which has been slow moving within the past 12 months, is evaluated and reserved if

deemed appropriate. In addition, any residual inventory, which is customer specific and remaining on hand at the time of contract completion, is reserved for at the standard unit cost. 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 reserved for. Additionally, non-cancelable open purchase orders for parts we are obligated to purchase where demand has been reduced may be reserved. Reserves for open purchase orders where the market price is lower than the purchase order price are also established. If a product that had previously been reserved for is subsequently sold, the amount of reserve specific to that item is then reversed.

**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
Office Furniture	3 □ 7 years
Computer Hardware	3 □ 7 years
Computer Software	3 □ 5 years
Automobiles	5 years

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**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** - In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, goodwill and intangible assets that are not subject to amortization shall be tested for impairment annually on March 31st for the Company or more frequently if events or changes in circumstances indicate that the asset might be impaired. The impairment test shall consist of a comparison of the fair value of the asset with its carrying amount, as defined. SFAS 142 requires a two-step method for determining goodwill impairment. Step one 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 asset exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess.

The Company 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 common stock over a 10-day period before and a 10-day period after each assessment date. We use this 20-day duration to consider inherent market fluctuations that may affect any individual closing price. We believe that our 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 related to our company □ to our market capitalization.

As of March 31, 2008 our market capitalization, calculated as described above, was \$31.8 million and our carrying value, including goodwill, was \$19.7 million. Because market capitalization significantly exceeded our carrying value, our estimate of the control premium was not a determining factor in the outcome of step one of the impairment assessment. As of March 31, 2009, our market capitalization calculated as described above, had fallen to \$17.1 million and our carrying value, including goodwill, had decreased to \$17.9 million. We applied a 25% control premium to market capitalization to determine a fair value of \$21.4 million. We believe that including a control premium at this level is supported by recent transaction data in our industry. The Company's evaluation for the fiscal year ended March 31, 2009, indicated there were no impairments. Absent the inclusion of

a control premium greater than 4% for FY 2009, our carrying value would have exceeded fair value, requiring a step two analysis which may have resulted in an impairment of goodwill.

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-lived Assets*, the carrying value of long-lived assets, including amortizable intangibles and equipment and leasehold improvements, 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 are less than the carrying value of the asset. The estimated cash flows include management's assumptions of cash inflows and outflows directly resulting from the use of that asset in operations. The amount of the impairment loss recognized is equal to the excess of the carrying value of the asset over its then estimated fair value. The Company's evaluation for the fiscal year ended March 31, 2009, indicated there were no impairments.

**Revenue Recognition** □ Revenue is derived principally from the sales of the Company's products. The Company recognizes revenue when the basic criteria of Staff Accounting Bulletin No. 104 are met. Specifically, the Company recognizes revenue when persuasive evidence of an arrangement exists, usually in the form of a purchase order, when shipment has occurred since its terms are FOB source, or when services have been rendered, title and risk of loss have passed to the customer, 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.

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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 Company accrues the estimated exposure to warranty claims based upon historical claim costs. The Company's management reviews these estimates on a regular basis and adjusts the warranty provisions as actual experience differs from historical estimates or as other information becomes available.

The Company does not provide price protection or general right of return. The Company's 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 discretion of the Company and are recorded when and if determined.

The Company predominantly sells directly to original equipment manufacturers with a direct sales force. The Company sells in limited circumstances through distributors. Sales through distributors represent approximately 5% of total revenue. 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 transfers title to the distributor at the time of shipment by the Company, 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 the services and/or materials are provided.

**Significant Customers** □ During fiscal years ended March 31, 2009 and March 31, 2008, no single customer accounted for more than 10% 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. The accruals, and the related expenses, for known issues and for estimated incurred but unidentified issues were not significant during the periods presented.

The following table presents the movement in the product warranty liability for the years ended March 31, 2009 and March 31, 2008

<b>Years ended March 31,</b>	
<b>2009</b>	<b>2008</b>

Beginning balance	\$	85,000	\$	83,000
Current period accruals		76,000		2,000
Used for purpose intended		<u>(23,000)</u>		<u>---</u>
Ending balance	\$	138,000	\$	85,000

**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 Statement 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 sales. The Company generally retains intellectual property rights related to paid research and development contracts.

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**Advertising Costs** - Advertising costs are expensed as incurred. Advertising expense was approximately \$127,000 and \$106,000 in FY 2009 and FY 2008, respectively.

**Accounting for Stock Based Compensation** - The Company accounts for stock-based incentives plans in accordance with Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment* (SFAS No. 123(R)). Accordingly, the Company estimates the fair value of stock-based awards utilizing the Black-Scholes pricing model. 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 are provided 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. 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 SFAS No. 109 *Accounting for Income Taxes*.

The calculation of federal income taxes involves dealing with uncertainties in the application of complex tax regulations. On January 1, 2007, the Company adopted FASB Interpretation No. 48 *Accounting for Uncertainty in Income Taxes, an Interpretation of SFAS No. 109* (FIN 48). As a result of the implementation of FIN 48, we recognize liabilities for uncertain tax positions based on the two-step process prescribed in the interpretation. The first step is to evaluate 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 requires us to estimate and measure 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. We reevaluate these uncertain tax positions on an annual basis. This evaluation 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 application of FIN 48 has not had an impact on our financial statements or results of operations and we have taken no tax positions which would require disclosure under the new guidance. Although the IRS is not currently examining any of our income tax returns, tax years 2005 to 2008 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. The total shares excluded from the computation of earnings per share for the year ended March 31, 2009 totaled 56,000 shares, representing outstanding stock

options and warrants convertible into shares of common stock. The total shares excluded from the computation of earnings per share for the year ended March 31, 2008 totaled 426,000 shares, representing outstanding stock options and warrants convertible into shares of common stock.

### Recent Pronouncements and Accounting Changes

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (SFAS No. 157), which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. This Statement is effective for the fiscal years beginning after November 15, 2007. However, in February 2008, the FASB issued FASB Statement of Position (FSP) FAS No. 157-2, *Effective Date of FASB Statement No. 157*. This FSP delays the effective date of SFAS No. 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually) to fiscal years beginning after November 15, 2008 and interim periods within those fiscal years. The adoption of SFAS No. 157 did not have a material impact on our consolidated financial statements.

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In October 2008, the FASB issued FSP FAS No. 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active* (FAS No. 157-3) with an immediate effective date, including prior periods for which financial statements have not been issued. FSP FAS No. 157-3 clarifies the application of fair value in inactive markets and allows for the use of management's internal assumptions about future cash flows with appropriately risk-adjusted discount rates when relevant observable market data does not exist. The objective of FAS No. 157 has not changed and continues to be the determination of the price that would be received in an orderly transaction that is not a forced liquidation or distressed sale at the measurement date. The adoption of FSP FAS No. 157-3 did not have a material effect on the Company's results of operations, financial position or liquidity.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (SFAS No. 159), which permits entities to choose to measure many financial instruments and certain other items at fair value. SFAS No. 159 also includes an amendment to SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities* which applies to all entities with available-for-sale and trading securities. This Statement is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. The adoption of this pronouncement had no impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141 (Revised 2007), *Business Combinations* (SFAS No. 141(R)). The objective of SFAS No. 141(R) is to improve reporting by creating greater consistency in the accounting and financial reporting of business combinations, resulting in more complete, comparable and relevant information for investors and other users of financial statements. SFAS No. 141(R) requires the acquiring entity in a business combination to recognize all (and only) the assets acquired and liabilities assumed in the transaction; establishes the acquisition-date fair value as the measurement objective for all assets acquired and liabilities assumed; and requires the acquirer to disclose to investors and other users all of the information they need to evaluate and understand the nature and financial effect of the business combination. SFAS No. 141(R) is effective as of the start of fiscal years beginning after December 15, 2008. Early adoption is not allowed. The adoption of SFAS No. 141(R) will change our accounting treatment for business combinations on a prospective basis beginning April 1, 2009.

In December 2007, the FASB issued SFAS No. 160, *Non-controlling Interests in Consolidated Financial Statements* (SFAS No. 160). SFAS No. 160 improves the relevance, comparability, and transparency of financial information provided to investors by requiring all entities to report non-controlling (minority) interests in subsidiaries in the same way as equity in the consolidated financial statements. Moreover, SFAS No. 160 eliminates the diversity that currently exists in accounting for transactions between an entity and non-controlling interests by requiring them to be treated as equity transactions. SFAS No. 160 is effective as of the start of fiscal years beginning after December 15, 2008. Early adoption is not allowed. Since the Company currently has no minority interest, adoption of this standard will have no impact on our financial position, results of operations or cash flows.

In December 2007, the SEC issued Staff Accounting Bulletin No. 110 (SAB No. 110) to amend the SEC's views discussed in Staff Accounting Bulletin No. 107 (SAB No. 107) regarding the use of the simplified method in developing an estimate of expected life of share options in accordance with SFAS No. 123(R). SAB No. 110 is

effective for us beginning April 1, 2007. The Company currently uses reasonable estimates of expected life in accordance with SAB No. 107, as amended by SAB No. 110.

In April 2008, the FASB issued FASB Staff Position (FSP) No. FAS 142-3, *Determination of the Useful Life of Intangible Assets* (FSP No. FAS 142-3). The final FSP amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets*. The FSP is intended to improve the consistency between the useful life of an intangible asset determined under SFAS No. 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS No. 141 (revised 2007), *Business Combinations*, and other US generally accepted accounting principles. The FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The Company is currently evaluating the impact, if any, FSP No. FAS 142-3 will have on its consolidated financial statements.

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In May 2008, the FASB issued FASB Staff Position (FSP) No. APB 14-1. This FSP clarifies that convertible debt instruments that may be settled in cash upon conversion (including partial cash settlement) are not addressed by paragraph 12 of APB Opinion No. 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*. Additionally, this FSP specifies that issuers of such instruments should separately account for the liability and equity components in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The Company is in the process of evaluating the impacts, if any, of adopting this FSP.

In June 2008, the FASB ratified the consensus reached by the Emerging Issues Task Force, EITF Issue No. 07-5, *Determining Whether an Instrument (or an Embedded Feature) Is Indexed to an Entity's Own Stock* (EITF 07-5). EITF 07-5 addresses how an entity should evaluate whether an instrument is indexed to its own stock. The consensus is effective for fiscal years (and interim periods) beginning after December 15, 2008. The consensus must be applied to outstanding instruments as of the beginning of the fiscal year in which the consensus is adopted and should be treated as a cumulative-effect adjustment to the opening balance of retained earnings. Early adoption is not permitted. The Company is in the process of evaluating the impacts, if any, of adopting this EITF.

In June 2008, the FASB issued FASB Staff Position (FSP) EITF 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities*. This FSP provides that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of basic earnings per share pursuant to the two-class method described in SFAS No. 128, *Earnings per Share*. All prior period earnings per share data presented shall be adjusted retrospectively to conform to the provisions of this FSP. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. Early application is prohibited. The Company is in the process of evaluating the impact, if any, of adopting this FSP.

In April 2009, the FASB issued FASB Staff Position (FSP) FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies*. FSP FAS 141(R)-1 provides guidance for determining the acquisition-date fair value of assets acquired and liabilities assumed in a business combination that arise from contingencies, and provides guidance on how to account for these assets and liabilities subsequent to the completion of a business combination. FSP FAS 141(R)-1 also requires increased disclosures on assets acquired and liabilities assumed in a business combination that arise from contingencies. FSP FAS 141(R)-1 is effective for assets or liabilities arising from contingencies in business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The adoption of FSP FAS 141(R)-1 will change our accounting treatment for business combinations on a prospective basis beginning April 1, 2009.

### 3. Inventories

Inventories consisted of the following at March 31:

2009

2008

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Raw material	\$ 3,316,000	\$ 3,260,000
Work-in-process	808,000	1,626,000
Finished products	392,000	229,000
Total inventories	4,516,000	5,115,000
Less reserve	(847,000)	(984,000)
Inventories, net	<b>\$ 3,669,000</b>	<b>\$ 4,131,000</b>

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#### 4. Equipment and Leasehold Improvements

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

	2009	2008
Machinery and equipment	\$ 8,117,000	\$ 7,912,000
Furniture and fixtures	715,000	715,000
Leasehold improvements	969,000	952,000
Computer hardware equipment	611,000	564,000
Vehicles	26,000	26,000
Capitalized software	808,000	419,000
Total assets	11,246,000	10,588,000
Accumulated depreciation	(7,148,000)	(6,090,000)
	4,098,000	4,498,000
Construction-in-process	224,000	259,000
Net equipment and leasehold improvements	<b>\$ 4,322,000</b>	<b>\$ 4,757,000</b>

The estimated cost to complete the construction-in-process is not considered significant.

Depreciation expense was approximately \$1.2 million for fiscal year ended March 31, 2009 and \$1.1 million for fiscal year ended March 31, 2008.

#### 5. Intangible Assets and Goodwill

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

	Weighted Average Lives	Amortization Method	March 31, 2009			March 31, 2008		
			Carrying Value	Accumulated Amortization	Intangibles Net	Carrying Value	Accumulated Amortization	Intangibles Net
Non-Compete agreement	3	Cash Flow	\$ 130	\$ 130	\$ --	\$ 130	\$ 117	\$ 13
Customer list	15	Straight Line	475	334	141	475	322	153
Trademarks	15	Cash Flow	2,270	514	1,756	2,270	391	1,879
Customer relationships	5	Cash Flow	1,380	726	654	1,380	450	930
Technology	10	Cash Flow	10,950	5,231	5,719	10,950	3,592	7,358
Patents			502	--	502	424	--	424
pending Patents	10	Straight Line	295	92	203	187	73	114
<b>Total</b>			<b>\$ 16,002</b>	<b>\$ 7,027</b>	<b>\$ 8,975</b>	<b>\$ 15,816</b>	<b>\$ 4,945</b>	<b>\$ 10,871</b>

## Intangibles

Amortization expense for the fiscal year ended March 31, 2009 was approximately \$2.1 million compared to \$2.0 million for the year ended March 31, 2008. Patent amortization expense, included above, was approximately \$19,000 and \$11,000 in FY 2009 and 2008, respectively. The current patents held by the Company have remaining useful lives ranging from 2 years to 20 years.

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Assuming no impairment to the intangible value, future amortization expense for intangible assets and patents are as follows:

Intangible Assets		Patents (a)	
2010	\$ 2,035,000	2010	\$ 24,000
2011	1,584,000	2011	24,000
2012	1,305,000	2012	24,000
2013	1,088,000	2013	24,000
2014	901,000	2014	24,000
2015 & after	1,357,000	2015 & after	83,000
<b>Total</b>	<b>\$ 8,270,000</b>	<b>Total</b>	<b>\$ 203,000</b>

a) Patent pending costs of \$502,000 are not included in the chart above. These costs will be amortized beginning the month the patents are granted.

### 6. Line of Credit

On March 6, 2007, the Company and Fifth Third Bank entered into a Revolving Line of Credit (the Loan Agreement) providing for borrowings of up to a maximum of \$2.0 million at an interest rate equal to the prime rate. On November 13, 2007, the Loan Agreement was amended to increase the principal amount available to \$3.0 million. At March 31, 2008, the Company did not meet the debt service coverage ratio covenant and the Loan Agreement was subsequently amended on June 30, 2008 to reduce the principal amount available to \$2.5 million and to amend the interest rate to be equal to prime plus 2%.

On September 25, 2008, the Company terminated the Loan Agreement with Fifth Third Bank and established a credit facility with The PrivateBank and Trust Company. As part of this new banking relationship, the Company established a three year Line of Credit of \$3.0 million at an interest rate of prime plus 1%, adjusted quarterly. The prime rate at March 31, 2009 was 3.25%. The new facility contains customary representations, warranties and financial covenants including minimum debt service coverage ratio, Adjusted EBITDA level, and Net Worth requirements (as defined in the agreement). The principal loan amount is due on September 25, 2011, provided that if existing loans to the Company by the Michigan Economic Development Corporation have not converted to equity on or before August 31, 2011, the outstanding principal shall be due on August 31, 2011. The availability under the new facility will be determined by the calculation of a borrowing base that includes a percentage of accounts receivable and inventory.

At March 31, 2009, the Company was in compliance with the debt service coverage ratio and Net Worth requirements, but was not in compliance with the Adjusted EBITDA level. The Company has received a waiver from the bank regarding the default and entered into an amendment to the loan agreement on May 29, 2009 effective March 31, 2009. According to the terms of the amended loan agreement, the Adjusted EBITDA level is measured on a year to date basis for the June 30, 2009, September 30, 2009, December 31, 2009 and March 31, 2010 test dates and thereafter on a trailing four quarter basis. In addition, the Debt Service Coverage ratio and the Net Worth covenants were amended. The amended minimum Debt Service Coverage ratio is 1.0 to 1.0 for the first quarter, 1.25 to 1.0 for the second quarter and 1.5 to 1.0 thereafter. The amended minimum Net Worth covenant is \$15.5 million and will increase by 10% of Net Income for each fiscal year that the Company reports net income.

The line of credit is guaranteed by each of API's wholly-owned subsidiaries and the loan is secured by a Security Agreement among API, its subsidiaries and The PrivateBank, pursuant to which API and its subsidiaries granted to The PrivateBank a first-priority security interest in certain described assets. The outstanding balance as of



March 31, 2009 is \$1.4 million.

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## 7. Long-Term Debt and Notes Payable

*Convertible Debt* - During FY 2005 the Company issued \$5.0 million aggregate principal amount of its senior convertible notes (Convertible Debt 1st Tranche) and during FY 2006, the Company issued an additional \$5.0 million aggregate principal amount (Convertible Debt 2nd Tranche) to four institutional investors. The notes carried an interest rate of prime plus 1% and had a maturity date of October 2007. In connection with the placement of the convertible notes, the Company issued detachable warrants granting the holders the right to acquire 1,731,145 shares of the Company's common stock at \$1.78 per share for 255,246 shares and \$1.744 per share for 1,475,899 shares. The warrants and certain beneficial conversion features were valued at issuance and resulted in an aggregate of \$3.7 million of additional paid in capital and debt discount. Approximately \$4.5 million of the convertible notes were converted to common stock in FY 2006. In October 2007, \$3.150 million of the remaining aggregate senior convertible notes were converted into 1,601,324 shares Class A Common Stock (\$1.275 million @ \$1.8818 per share and \$1.875 million @ \$2.0297 per share) and the balance of \$2.375 million, plus interest, was retired with cash. Total interest expense related to these convertible notes was \$1.9 million in FY 2008, comprised of \$1.672 million debt discount amortization and \$268,000 of cash interest expense. The Company reported no interest expense for FY 2009 related to convertible notes. As of March 31, 2009, there were warrants to purchase 1,389,082 shares of Class A Common stock outstanding at an exercise price of \$1.744 per share, of which 694,541 will expire in April 2010 and 694,541 will expire in April 2011.

As a result of the common stock private placement, completed on September 14, 2007(see note 11), the anti-dilution clause of the Convertible Debt was triggered; increasing the number of shares issuable, if converted, by 104,047 and decreasing the weighted average conversion price to \$1.99 from \$2.06. In addition the number of warrants increased by 29,500 and the exercise price of the warrants decreased to \$1.7444 from \$1.78. The Company recorded the intrinsic value attributable to the additional shares and warrants issued of \$306,000 as additional debt discount with an offset to Additional Paid in Capital. In accordance with EITF 00-27, the \$306,000 was amortized to interest expense over the remaining life of the convertible notes during FY 2008.

*Master Lease Agreement* - In March, 2007, API, as Lessee, entered into a Master Equipment Lease Agreement with Fifth Third Leasing Company, as Lessor, to finance the purchase of new manufacturing equipment up to an aggregate of \$2.3 million (Lease). API purchased equipment under the Lease until June 30, 2007. This Lease was accounted for as a capital lease in accordance with SFAS No. 13. On September 25, 2008, the Company retired the Master Equipment Lease Agreement by paying the remaining principal amount of \$1,736,000.

*Loan Agreement* - On September 25, 2008, the Company established a new credit facility with The PrivateBank and Trust Company. As part of this banking relationship, in addition to the line of credit described in note 6, the Company established an Equipment Installment Loan of \$1.736 million amortized over a term of four years, at an interest rate of prime plus 1%. The principal loan amount is due on September 25, 2012, provided that if existing loans to the Company by the Michigan Economic Development Corporation have not converted to equity on or before August 31, 2011, the Loan shall be due on August 31, 2011. The Company utilized the Equipment Installment loan to retire the Master Equipment Lease Agreement with Fifth Third Leasing Company. The balance on this term loan at March 31, 2009 was \$1.6 million.

As discussed in Note 6, the Company was not in compliance with the Adjusted EBITDA level requirements. The Company has received a waiver from the bank regarding the default. Based on the amended loan covenants described in Note 6, the Company anticipates that it will meet the loan covenants during FY 2010, and as a result has classified the current and future maturities in accordance with the loan agreement.

*MEDC Loans* - The Michigan Economic Development Corporation (MEDC) entered into two loan agreements with Picometrix LLC, one in fiscal 2004 (MEDC-loan 1) and one in fiscal 2005 (MEDC-loan 2). Both loans are unsecured.

The MEDC-loan 1 is for \$1,025,000 with an interest rate of 7%. Under the original terms of the promissory note, interest accrued but unpaid through October 2008 would be added to then outstanding principal balance of the note and the restated principal would be amortized over the remaining four years (September 15, 2012). Effective September 23, 2008, the MEDC-loan 1 of \$1,025,000 was amended and restated to change the start

date of repayment of principal and interest from October 2008 to October 2009. Commencing in October 2009, the Company will pay MEDC the restated principal and accrued interest on any unpaid balance over the remaining three years.

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MEDC-loan 2 is for \$1.2 million with an interest rate of 7%. Under the original terms of the promissory notes, interest accrued, but unpaid in the first two years of this agreement was added to the then outstanding principal of this promissory note. During the third year of this agreement, the Company was to pay interest on the restated principal of the Note until October 2008, at which time the Company was to repay the restated principal over the remaining three years (September 15, 2011). Effective January 26, 2009, the MEDC-loan 2 of \$1.2 million was amended and restated to change the start date of repayment of principal and interest from October 2008 to November 2009 and to extend the repayment period to October 2012. The current and long-term portions included in the March 31, 2009 balance sheet have been classified based on the terms of the January 2009 amendment.

Included in accrued interest at March 31, 2009 is approximately \$488,000 of accrued interest that will be rolled into the principal of the MEDC loans when the repayment periods begin as described above.

*Related Parties Debt* - As a result of the acquisition of Picotronix, Inc. (dba Picometrix, Inc.), the Company issued promissory notes to the stockholders of Picometrix, (Debt to Related Parties) (see note 15). The notes are payable in annual installments of varying amounts through March 2010, as amended in FY 2009. The notes bear interest at a rate of prime plus 1.0% and are secured by all of the intellectual property of Picometrix. API has the option of prepaying the notes without penalty.

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

	Balance 3/31/08	Balance 3/31/09	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015 & Beyond
Credit Line - The Private Bank	\$ --	\$ 1,394	--	\$ -	\$ 1,394	\$ -	\$ -	\$ -
Credit Line - Fifth Third Bank	1,300	--	--	--	--	--	--	--
Term Loan □ The Private Bank	--	1,555	434	434	434	253	--	--
Debt to Related Parties	1,851	1,401	1,401	--	--	--	--	--
MEDC loans	2,311	2,224	353	892	956	23	--	--
Capital Lease Obligation	1,917	--	--	--	--	--	--	--
<b>TOTAL</b>	<b>\$ 7,379</b>	<b>\$ 6,574</b>	<b>\$ 2,188</b>	<b>\$ 1,326</b>	<b>\$ 2,784</b>	<b>\$ 276</b>	<b>\$ --</b>	<b>\$ --</b>

The Company performed an assessment of the amendments made to its MEDC and related party loans made during FY 2009 to determine whether the amendments constituted a "substantial modification" as defined in SFAS No. 140 ("Accounting for Transfer and Servicing of Financial Assets and Extinguishments of Liabilities"), and EITF 96-19 ("Debtor's Accounting for a Modification or Exchange of Debt Instruments") and concluded that no substantial modifications were made.

#### 8. Capitalization

The Company's Certificate of Incorporation provides for two classes of common stock, a Class A for which 100,000,000 shares are authorized for issuance and a Class B for which 4,420,113 shares are authorized for issuance. The par value of each class is \$.001. Subject to certain limited exceptions, shares of Class B Common Stock are automatically converted into an equivalent number of Class A shares upon the sale or transfer of the Class B Common Stock by the original holder. The holder of each share of Class A and Class B Common Stock is

entitled to one vote per share.

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The Company has authorized 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. At March 31, 2009, 40,000 shares of Class A Redeemable Convertible Preferred Stock (Class A Preferred) were issued and outstanding. The Class A convertible preferred stock is redeemable solely at the option of the Company and can also be mandatorily converted by the Company into Class A Common Stock at a rate of 3.33 Class A Preferred Stock to one share of Class A Common Stock. The Class A Preferred Stock contains a liquidation preference of \$.80 per share, or a total of \$32,000 with respect to all such shares outstanding. The Class A Preferred stockholders do not have voting rights except as required by applicable law.

## 9. Stock Based Compensation

The Company has five stock equity plans: The 1990 Incentive Stock Option and Non-Qualified Stock Option Plan, the 1991 Directors' Stock Option Plan (The Directors' Plan), the 1997 Employee Stock Option Plan, the 2000 Stock Option Plan and the 2007 Equity Incentive Plan. As of March 31, 2009, under all of our plans, there were 7,200,000 shares authorized for issuance, with 2,209,510 shares remaining available for future grant.

Options typically vest at the rate of 25% per year over four years and are exercisable up to ten years from the date of issuance. Options granted under the Directors' Plan typically vests at the rate of 50% per year over two years. Under these plans, the option exercise price equals the stock's market price on the date of grant. Options and restricted stock awards may be granted to employees, officers, directors and consultants. Under the 2007 Equity Incentive Plan, stock options typically vest within four years from grant date and restricted stock awards typically vest within one year.

Stock option transactions for fiscal years 2008 and 2009 are summarized as follows:

	Shares (000)	Weight Average Exercise Price	Weighted Average Term (in years)	Aggregate Intrinsic Value
<b>Outstanding, March 31, 2007</b>	2,540	\$1.90		
Exercisable, March 31, 2007	1,978	\$1.81		
Outstanding, March 31, 2007	2,540	\$1.90		
Granted	161	\$1.87		
Exercised	(98)	\$0.78		
Expired	(16)	\$0.08		
<b>Outstanding, March 31, 2008</b>	2,619	\$1.92		
Exercisable, March 31, 2008	2,198	\$1.87		
Outstanding, March 31, 2008	2,619	\$1.92		
Granted	292	\$1.52		
Exercised	(57)	\$0.86		
Expired	(108)	\$1.62		
<b>Outstanding, March 31, 2009</b>	2,746	\$1.92	5.97	\$21,000
Exercisable, March 31, 2009	2,374	\$1.93	5.29	\$21,000
Vested & expected to Vest, March 31, 2009	2,676	\$1.92	5.97	\$17,000

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Information regarding stock options outstanding as of March 31, 2009 is as follows:

Price Range	Options Outstanding		
	(in 000s) Shares	Weighted Average Exercise Price	Weighted Average Remaining Life
\$0.50 - \$1.25	755	\$0.75	1.43
\$1.50 - \$2.50	1,285	\$1.90	6.89
\$2.87 - \$5.34	706	\$3.19	4.75

Price Range	Options Exercisable		
	(in 000s) Shares	Weighted Average Exercise Price	Weighted Average Remaining Life
\$0.50 - \$1.25	755	\$0.75	1.43
\$1.50 - \$2.50	953	\$1.98	6.25
\$2.87 - \$5.34	666	\$3.21	4.63

The intrinsic value of options exercised in fiscal years 2009 and 2008 was approximately \$48,000 and \$116,000, respectively.

During FY 2009, restricted shares were issued to certain individuals. The restricted share transactions are summarized below.

	Shares (000)	Weighted Average Grant Date Fair Value
<b>Unvested, March 31, 2008</b>	--	--
Granted	56	\$1.68
Vested	(27)	\$1.87
Expired	--	--
<b>Unvested, March 31, 2009</b>	29	\$1.50

The total fair value of restricted shares vesting during FY 2009 was \$17,000.

The Company accounts for stock-based incentives plans, in accordance with Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment* (SFAS No. 123(R)). Accordingly, the Company estimates the fair value of stock options utilizing the Black-Scholes pricing model. 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 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 stock-based awards are expected to remain outstanding has been determined based on the average of the original award period and the remaining vesting period in accordance with the SEC's short-cut approach pursuant to SAB No. 107, *Disclosure about Fair Value of Financial Statements*. As additional evidence develops from the Company's stock trading 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 from the acquisition date of Picometrix LLC (May 2, 2005) to the date of the latest stock grant. As additional evidence develops, the future volatility estimate will be refined to capture the relevant trends.

- A dividend yield of zero has been assumed for awards issued for the years ended March 31, 2009 and March 31, 2008, 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, 2009 and March 31, 2008 on the implied yield available on U.S. Treasury issues with an equivalent expected term.
- The forfeiture rate for awards issued during the years ended March 31, 2009 and March 31, 2008 were approximately 18.7% and was based on the Company's actual historical forfeiture trend.

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	Year Ended	
	March 31, 2009	March 31, 2008
<b>Option Plan Shares:</b>		
Expected term (in years)	6.3	6.3
Volatility	42.5%	49.8%
Expected dividend	0%	0%
Risk-free interest rate	2.2%	4.4%
Weighted-average grant date fair value	\$ .71	\$ 1.09

Under the provisions of SFAS No. 123(R), the Company recorded \$204,000 and \$230,000 of stock compensation expense in our consolidated statements of operations for the years ended March 31, 2009 and March 31, 2008, respectively.

The table below lists the classification of the Stock Based Compensation Expense for the years ended March 31, 2009 and March 31, 2008.

	2009	2008
Cost of products sold	\$ 12,000	\$ 15,000
Research and development expense	48,000	58,000
General and administrative expense	117,000	143,000
Sales and marketing expense	<u>27,000</u>	<u>14,000</u>
<b>Total Stock Based Compensation</b>	<b>\$ 204,000</b>	<b>\$ 230,000</b>

At March 31, 2009, the total stock-based compensation expense related to unvested stock awards granted to employees and directors under the Company's stock plans but not yet recognized was approximately \$229,000. 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.

#### 10. Wafer Fabrication consolidation and Dodgeville closure

**Wafer Fabrication consolidation** - The Company is finalizing the consolidation and modernization of its wafer fabrication facilities. Prior to this consolidation, the Company had excess wafer fabrication capacity at its three

locations (including Dodgeville, WI), with the Ann Arbor, MI facility having the most modern infrastructure. The wafer fabrication facilities and equipment in its Wisconsin and California facilities had similar capabilities and both required substantial upgrade and improvement in order to maintain production capabilities. Since the Ann Arbor facility, when equipped, would have the physical capacity to produce all of the Company's current and foreseeable wafer requirements and would not significantly impact current production requirements during any upgrade process, management decided to consolidate all optoelectronic wafer fabrication into the Ann Arbor facility. Even though the Company had excess capacity in its Wisconsin and California production facilities, no abnormally low production levels were experienced. Unallocated overhead costs were recognized as an expense in the period in which they were incurred in accordance with SFAS No. 151, *Inventory Costs*, during the normal course of business.

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The Company estimates its total wafer fabrication consolidation expense to complete the consolidation will be approximately \$2.4 million, of which \$2.3 million has been incurred through the end of FY 2009. Projected costs consist of labor and associated expense of \$1.1 million, travel and relocation costs of \$169,000, accelerated depreciation expense on de-commissioned assets of \$150,000 and supplies, consulting and other related costs of \$854,000. The balance expected to be incurred through the remainder of the project is estimated to be approximately \$100,000 to re-provision the California clean room into a hybrid assembly area. In accordance with SFAS No. 146, *Accounting for Cost Activities Associated with Exit or Disposal Activities*, all costs associated with the consolidation are recorded as expenses when incurred. Upon completion of the wafer fabrication consolidation, the Company expects cost reduction through elimination of duplicate expenditures and yield improvements as well as an increase in new product development capability.

**Dodgeville closure** - During the 3<sup>rd</sup> quarter of FY 2008, the Company recorded \$534,000 in restructuring charges related to the consolidation of the Dodgeville, WI facility into the Camarillo, CA facility. These charges included \$243,000 for severance and benefits, \$266,000 for manufacturing transfer cost, and \$25,000 for lease costs. This consolidation accounted for the termination of 30 employees. Of these reductions to headcount, 26 were in manufacturing, 1 in research and development and 3 in sales, general and administration functions. As of the end of the 3<sup>rd</sup> quarter of FY 2008, all of these employees were terminated. All closure restructuring charges were paid in the 3<sup>rd</sup> quarter of FY 2008. The Camarillo, CA and Dodgeville, WI facilities both had the same hybrid manufacturing and assembly capabilities, but combined represented excess capacity. As a result, management decided to reduce this excess capacity and consolidate into the California facility.

## 11. Equity

**Shareholders' Equity Transactions** - On September 14, 2007, The Company completed a private placement (the "Offering"). Each unit sold by the Company in the Offering consisted of four (4) shares of the Company's Class A Common Stock, par value \$0.001 per share (the "Offering Shares") and one (1) five year warrant exercisable for one share of Class A Common Stock at an exercise price of \$1.85 (each a "Warrant"). The Company sold a total of 741,332 units (consisting of 2,965,332 Offering Shares and 741,332 Warrants), of which 33,000 units (consisting of 132,000 Offering Shares and 33,000 Warrants) were to related parties at the prevailing closing stock price of \$1.83 per share, for an aggregate purchase price of \$4.5 million. The offer and sale of the Offering Shares and Warrants were made pursuant to Rule 506 promulgated pursuant to the Securities Act and each of the investors is an "accredited investor" as defined by Rule 501 promulgated pursuant to the Securities Act.

The schedule below shows the outstanding warrants at March 31, 2008 and March 31, 2009, more fully described in Note 7 and the paragraph above:

	Warrants Outstanding & Exercisable			
	Shares 2008 (000's)	Shares 2009 (000's)	Exercise Price	Remaining Life (in yrs) at 3/31/09
Convertible Note - 1 <sup>st</sup> Tranche	695	695	\$1.744	1.1
Convertible Note - 2 <sup>d</sup> Tranche	695	695	\$1.744	2.1
Private Placement	<u>741</u>	<u>741</u>	\$1.85	3.5
Total	<b>2,131</b>	<b>2,131</b>		

During FY 2009, there was no activity regarding warrants outstanding and exercisable. During FY 2008, 87,000 warrants were exercised at an aggregate price of \$151,000.

The exercise price for the warrants related to both tranches of convertible notes is subject to adjustment, based on a formula contained in the convertible note agreement, if common stock is issued in the future below the \$1.744 exercise price. Such adjustments cannot reduce the exercise price below a \$1.70 without obtaining shareholder approval.

## 12. Foreign Sales

In FY 2009 and FY 2008, the Company had export sales of approximately \$5.4 million and \$3.5 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:

	2009	2008
Canada	5%	1%
Germany	1%	3%
Poland	1%	--
Israel	2%	--
Japan	--	1%
United Kingdom	5%	7%
All other countries	4%	3%
Total export sales	18%	15%

## 13. 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 is 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. The Company contributions and administration costs recognized as expense were approximately \$279,000 and \$272,000 in FY 2009 and 2008, respectively.

Effective April 1, 2009, the Company matched portion of the 401K program was suspended through March 31, 2010 due to the unstable economic environment the country is currently experiencing. The matching program will be re-instituted when economic conditions improve.

## 14. Income Taxes

At March 31, 2009, the Company had net operating loss carry forwards (NOL's) of approximately \$21.0 million for Federal income tax purposes and \$5.4 million for state income tax purposes that expire at various dates through fiscal year 2029. 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, 2009, the Company believes there are no limitations on the use of these Federal NOLs.

At March 31, 2009, our net deferred tax asset before consideration of a valuation allowance was approximately \$7.3 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 its recent years history of losses, including tax losses in two of the last three years and cumulative taxable losses over the past three years, outweighing the positive evidence of taxable 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, 2009 and 2008, the Company recorded a full valuation allowance on its net deferred tax.

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

Years Ended	March 31, 2009	March 31, 2008
Federal income tax at statutory rates	\$ (692,000)	\$ (2,857,000)
State income taxes, net of federal benefit	20,000	(110,000)
Expiration of NOL carry-forwards	1,300,000	757,000
Change in valuation allowance	(559,000)	3,331,000
Change in R&D credit carry-forwards	(137,000)	(29,000)
Permanent items	82,000	298,000
Other	(14,000)	(165,000)
Effective federal income tax	\$ --	\$ (1,225,000)

The Company's net deferred tax assets (liabilities) consisted of the following components, for fiscal years 2009 and 2008:

	2009	2008
Sec. 263A adjustment	\$ 57,000	\$ 62,000
Inventory reserve	314,000	372,000
Utility accruals	3,000	4,000
Warranty reserve	55,000	34,000
Accounts receivable allowance	22,000	5,000
Accrued vacation	120,000	88,000
Charitable contributions	15,000	14,000
NOL Carryforwards	7,716,000	9,018,000
Basis difference of intangibles	(2,172,000)	(2,854,000)
Basis difference of equipment	(748,000)	(631,000)
R&D credits	1,561,000	1,390,000
Goodwill amortization	322,000	322,000
California Mfg. credit	39,000	39,000
AMT credit	1,000	1,000
<b>Total</b>	<b>\$ 7,305,000</b>	<b>\$ 7,864,000</b>
Valuation allowance	(7,305,000)	(7,864,000)
Net deferred tax asset	<b>\$ 0</b>	<b>\$ 0</b>

At March 31, 2009 the Company had net operating loss carry forwards for federal tax of approximately \$21 million that expire between 2010 and 2029, and approximately \$5.4 million for California state tax that expire between 2014 and 2020.

At March 31, 2009 the Company's Federal R&D tax credit carry forwards totaled approximately \$1.5 million. These will expire annually at March 31 over the next twenty (20) years.

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## 15. Related Party Transactions

The Company's only significant related party transactions relate to the payment of principal and interest on Debt to Related Parties as disclosed in note 7. The Company and the note holders entered into amendments to the Notes to extend the due date for the third installment under each of the Notes (in the aggregate amount of \$900,000) to December 1, 2008 from the original agreement payment date of May 1, 2008. In November 2008, a further amendment provided that the \$1,850,500 aggregate principal balance of the Notes would be payable in three installments as follows:

December 1, 2008	\$ 450,000
April 1, 2009	\$ 450,000
November 2, 2009	\$ 950,500

In April 2009, a further amendment revised the payment schedule for the fourth and fifth installments as follows:

December 1, 2009	\$ 450,000
March 1, 2010	\$ 950,500

On March 31, 2009, the remaining balance on the notes was \$1.4 million. The Company paid \$450,000 of principal and \$94,000 in interest to the note holders in FY 2009 and \$550,000 of principal and \$129,000 in interest to the note holders in FY 2008. Robin Risser and Steve Williamson, the Company's CFO and CTO, respectively, are the note holders.

## 16. Commitments & Contingencies

**Leases** - The Company leases all of its executive offices, research, marketing and manufacturing facilities under non-cancellable operating leases. The lease for our facility located in Camarillo, California was amended in December 2008 and is now leased through February 2014. The facility located in Ann Arbor, Michigan is comprised of the corporate office and the Picometrix LLC manufacturing plant and is leased through June 2011, with two five year options to renew at the current lease rate with a CPI adjuster. In addition, the Company has the right of first refusal to purchase the facility. Minimum future lease payments under all non-cancellable operating leases are as follows:

2010	\$ 1,101,000
2011	1,095,000
2012	575,000
2013	407,000
2014	382,000
Total	\$ 3,560,000

Rent expense was approximately \$1.2 million and \$1.3 million in FY 2009 and 2008, 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.

## 17. Quarterly Financial Data

The table below lists financial information (unaudited) by quarter for each of the two fiscal years ending March 31, 2009 and 2008.

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<b>2009</b>	<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth</b>	<b>Total Year</b>
Net Sales	\$ 7,770,000	\$ 8,188,000	\$ 7,606,000	\$ 6,111,000	\$ 29,675,000
Cost of Products Sold	4,014,000	4,624,000	4,329,000	3,777,000	16,744,000
Gross Profit	3,756,000	3,564,000	3,277,000	2,334,000	12,931,000
Research & Development Expenses	1,128,000	1,081,000	1,112,000	1,355,000	4,676,000
Selling, General & Administrative Expenses	2,389,000	2,708,000	2,415,000	2,399,000	9,911,000
Net Income (Loss)	\$ 147,000	\$ (326,000)	\$ (359,000)	\$ (1,497,000)	\$ (2,035,000)
Basic Income (Loss) per Common Share	\$ 0.01	\$ (0.01)	\$ (0.01)	\$ (0.06)	\$ (0.08)
Diluted Income (Loss) per Common Share	\$ 0.01	\$ (0.01)	\$ (0.01)	\$ (0.06)	\$ (0.08)
Weighted Average Common Shares Outstanding	24,010,000	24,060,000	24,109,000	24,121,000	24,074,000
<b>2008</b>					
Net Sales	\$ 6,145,000	\$ 6,529,000	\$ 5,306,000	\$ 5,235,000	\$ 23,215,000
Cost of Products Sold	3,675,000	3,784,000	3,431,000	3,450,000	14,340,000
Gross Profit	2,470,000	2,745,000	1,875,000	1,785,000	8,875,000
Research & Development Expenses	896,000	1,016,000	1,034,000	1,272,000	4,218,000
Selling, General & Administrative Expenses	2,650,000	2,497,000	3,117,000	2,397,000	10,658,000
Net Income (Loss)	\$ (1,906,000)	\$ (1,857,000)	\$ (2,726,000)	\$ (3,139,000)	\$ (9,628,000)
Basic Income (Loss) per Common Share	\$ (0.10)	\$ (0.09)	\$ (0.11)	\$ (0.13)	\$ (0.44)
Diluted Income (Loss) per Common Share	\$ (0.10)	\$ (0.09)	\$ (0.11)	\$ (0.13)	\$ (0.44)
Weighted Average Common Shares Outstanding	19,258,000	19,906,000	23,804,000	23,926,000	21,770,000

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

None

**Item 9A(T). 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 term is 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, 2009 based on the criteria set forth in *Internal Control [ ] Integrated Framework* issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on our evaluation under the criteria set forth in *Internal Control [ ] Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of March 31, 2009.

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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**

None

### **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 13 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 2009 Annual Meeting of Stockholders.

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

**Code of Ethics** -- The Company has adopted a Code of Ethics 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.

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

The following table sets forth, as of March 31, 2009, the aggregated information pertaining to all securities authorized for issuance under the Company's equity compensation plans:

<b>Plan Category</b>	Number of Securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average price of outstanding options, warrants and rights	Number of securities remaining available for future issuance
Equity compensation plans approved by shareholders	<b>2,374,040</b>	<b>\$ 1.93</b>	<b>2,210,000</b> (1)
Equity compensation plans not approved by shareholders	-	-	-
<b>Total</b>	<b>2,374,040</b>	<b>\$ 1.93</b>	<b>2,210,000</b> <b>(1)</b>

(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**

	<b>March 31, 2008</b>	<b>Additions</b>			<b>March 31, 2009</b>
		Charged to Expense	Charged to Other Accounts	Deductions	
Allowance for doubtful accounts	\$ 14,000	\$ 48,000	\$ --	\$ --	\$ 62,000
Inventory reserves	\$ 984,000	\$ 263,000	\$ --	\$ 400,000	\$ 847,000
Warranty reserves	\$ 85,000	\$ 76,000	\$ --	\$ 23,000	\$ 138,000
Deferred tax valuation allowance	\$ 7,864,000	\$ --	\$ --	\$ 559,000	\$ 7,305,000

	<b>March 31, 2007</b>	<b>Additions</b>			<b>March 31, 2008</b>
		Charged to Expense	Charged to Other Accounts	Deductions	
Allowance for doubtful accounts	\$ 51,000	\$ 9,000	\$ --	\$ 46,000	\$ 14,000
Inventory reserves	\$ 924,000	\$ 363,000	\$ --	\$ 303,000	\$ 984,000
Warranty reserves	\$ 83,000	\$ 2,000	\$ --	\$ --	\$ 85,000
Deferred tax valuation allowance	\$ 4,533,000	\$ 1,225,000	\$ 2,106,000	\$ --	\$ 7,864,000

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.

**Exhibit****Number Description**

2.1 Stock Purchase Agreement dated December 21, 2004 between Advanced Photonix, Inc. and Photonic Detectors, Inc. □ incorporated by reference to Exhibit 2.1 to the Registrant's Form 8-K, filed on December 23, 2004

2.2 Agreement and Plan of Merger between Advanced Photonix, Inc. and Michigan Acquisition Sub, LLC, Picotronics, Inc., Robin Risser and Steven Williamson, dated March 8, 2005 □ incorporated by reference to Exhibit 2.1 to the Registrant's Form 8-K, filed on March 14, 2005

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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 October 29, 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 September 9, 1992- incorporated by reference to the Registrant's March 31, 1996 Annual Report on Form 10-K

3.2 By-laws of the Registrant, as amended □ incorporated by reference to Exhibit 3.(ii) to the Registrant's Form 8-K as filed with the Securities and Exchange Commission on June 8, 2005

4.1 Rights Agreement, by and between the Company and Continental Stock Transfer and Trust Company, as amended □ incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K, filed on February 9, 2005

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- 10.1 Advanced Photonix, Inc. 1991 Special Directors Stock Option Plan ☐ incorporated by reference to Exhibit 10.9 to the Registrant's March 31, 1991 Annual Report on Form 10-K
- 10.2 Advanced Photonix, Inc. 1990 Incentive Stock Option and Non-Qualified Stock Option Plan incorporated by reference to Exhibit No. 10.11 to the Registrant's Registration Statement on Form S-1, filed with the Securities and Exchange Commission on November 23, 1990
- 10.3 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
- 10.4 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
- 10.5 Advanced Photonix, Inc. 2000 Stock Option Plan, as amended ☐ incorporated by reference to Exhibit 99.1 to the Registrant's Form 8-K, filed on November 19, 2004
- 10.6 Advanced Photonix, Inc. 2007 Equity Incentive Plan ☐ incorporated by reference to the Registrant's Exhibit A to the Proxy Statement relating to its 2007 Annual Meeting of Stockholders, as filed July 16, 2007 on Form 14A
- 10.7 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
- 10.8 Form of Employee Restricted Stock Agreement under the 2007 Equity Incentive Plan -- incorporated by reference to Exhibit 4. to the Registrant's Form S-8 on Registration Statement No. 333-147012, filed on October 30, 2007
- 10.9 Form of Employee Stock Option Agreement under the 2007 Equity Incentive Plan -- incorporated by reference to Exhibit 4.6 to the Registrant's Form S-8 on Registration Statement No. 333-147012, filed on October 30, 2007
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- 10.10 Advanced Photonix, Inc. Executive Incentive Compensation Plan -- incorporated by reference to Exhibit 10.1 to the Registrant's December 28, 2007 Quarterly Report on Form 10-Q
- 10.11 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
- 10.12 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
- 10.13 Securities Purchase Agreement, Registration Rights Agreement, Senior Subordinated Convertible Note, Warrant to Purchase Class A Common Stock, and Additional Investment Right dated October 12, 2004 between Advanced Photonix, Inc. and private investors ☐ incorporated by reference to Exhibits 10.13 through 10.13.4 to the Registrant's Form 8-K, filed on October 12, 2004
- 10.14 Letters of Agreement amending the Securities Purchase Agreement and Warrant to Purchase Class A Common Stock, dated March 9, 2005, between Advanced Photonix, Inc. and private investors ☐ incorporated by reference to Exhibits 10.2 through 10.5 to the Registrant's Form 8-K, filed on March

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14, 2005

- 10.15 Promissory Note between Picotronix, Inc. and Advanced Photonix, Inc., dated March 10, 2005 ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on March 14, 2005
- 10.16 Secured Promissory Note between Advanced Photonix, Inc. and Robin Risser, dated May 2, 2005 ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on May 6, 2005
- 10.17 Amendment dated May 1, 2008 to Secured Promissory Note dated May 2, 2005 by and between Advanced Photonix, Inc. and Robin Risser incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on May 2, 2008
- 10.18 Second Amendment dated November 26, 2008 to Secured Promissory Note dated May 2, 2005 by and between Advanced Photonix, Inc. and Robin Risser ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on December 1, 2008
- 10.19 Secured Promissory Note between Advanced Photonix, Inc. and Steven Williamson, dated May 2, 2005 ☐ incorporated by reference to Exhibit 10.2 to the Registrant's Form 8-K, filed on May 6, 2005
- 10.20 Amendment dated May 1, 2008 to Secured Promissory Note dated May 2, 2005 by and between Advanced Photonix, Inc. and Steven Williamson ☐ incorporated by reference to Exhibit 10.2 to the Registrant's Form 8-K, filed on March 2, 2008
- 10.21 Second Amendment dated November 26, 2008 to Secured Promissory Note dated May 2, 2005 by and between Advanced Photonix, Inc. and Steven Williamson ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on December 1, 2008
- 10.22 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

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- 10.23 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
  - 10.24 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
  - 10.25 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 Amended and Restated Promissory Note dated January 26, 2009 by Picometrix, LLC ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on January 30, 2009
  - 10.28 Loan Agreement between Advanced Photonix, Inc. and Fifth Third Bank, dated March 6, 2007 ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on March 9, 2007
  - 10.29 Promissory Note by Advanced Photonix, Inc. in favor of Fifth Third Bank, for \$2,000,000 dated March 6, 2007 ☐ incorporated by reference to Exhibit 10.2 to the Registrant's Form 8-K, filed on March 9, 2007

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- 10.30 Security Agreement among Advanced Photonix, Inc., Silicon Sensors, Inc., Picometrix, LLC, and Fifth Third Bank ☐ incorporated by reference to Exhibit 10.3 to the Registrant's Form 8-K, filed on March 9, 2007
- 10.31 Master Equipment Lease Agreement between Advanced Photonix, Inc. and Fifth Third Leasing Company dated March 6, 2007 ☐ incorporated by reference to Exhibit 10.4 to the Registrant's Form 8-K, filed on March 9, 2007
- 10.32 Interim Funding Schedule between Advanced Photonix and Fifth Third Leasing Company ☐ incorporated by reference to Exhibit 10.5 to the Registrant's Form 8-K, filed on March 9, 2007
- 10.33 First Amendment dated November 13, 2007 between Advanced Photonix, Inc. and Fifth Third Bank to that certain Business Loan Agreement dated as of March 6, 2007 ☐ incorporated by reference to Exhibit 10.4 to the Registrant's Form 10-Q/A, filed on June 17, 2008
- 10.34 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
- 10.35 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
- 10.36 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
- 10.37 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

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- 10.38 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
- 10.39 Form of Patent, Trademark and 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
- 10.40 Form of Third Party Subscription Agreement, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on September 7, 2007
- 10.41 Form of Insiders Subscription Agreement, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.2 to the Registrant's Form 8-K, filed on September 7, 2007
- 10.42 Form of 2007 Series Warrant to Purchase Class A Common Stock, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.3 to the Registrant's Form 8-K, filed on September 7, 2007
- 10.43 Form of Registration Rights Agreement, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.4 to the Registrant's Form 8-K, filed on September 7, 2007
- 10.44 Insider Side Letter regarding the Warrant Exercise Price, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.5 to the Registrant's Form 8-K, filed on September 7, 2007
- 10.45 Insider Side Letter regarding the Registration Rights Agreement, dated August 31, 2007 ☐ incorporated by reference to Exhibit 10.6 to the Registrant's Form 8-K, filed on September 7, 2007



10.46	Form of Third Party Subscription Agreement, dated September 14, 2007 [] incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K, filed on September 19, 2007
10.47	Advanced Photonix, Inc. Executive Incentive Compensation Plan (amended and restated as of March 6, 2009)
21.1	List of Subsidiaries of Registrant
23.1	Consent of BDO Seidman, 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

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**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 President

Date: June 29, 2009

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.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Richard D. Kurtz Richard D. Kurtz	Chairman of the Board, President, and Chief Executive Officer	June 29, 2009
/s/ Robin Risser Robin Risser	Chief Financial Officer and Director	June 29, 2009
/s/ M. Scott Farese M. Scott Farese	Director	June 29, 2009
/s/ Lance Brewer Lance Brewer	Director	June 29, 2009
/s/ Donald Pastor Donald Pastor	Director	June 29, 2009

/s/ Stephen P. Soltwedel  
Stephen P. Soltwedel

Director

June 29, 2009