ADVANCED PHOTONIX INC Form S-3 November 15, 2010

As filed with the Securities and Exchange Commission on November 15, 2010

Registration No. 333-\_\_\_\_

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

#### FORM S-3

## REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Advanced Photonix, Inc. (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 Number)

Advanced Photonix, Inc., 2925 Boardwalk, Ann Arbor, Michigan 48104, (734) 864-5600 (Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Richard D. Kurtz, President and Chief Executive Officer,
Advanced Photonix, Inc., 2925 Boardwalk, Ann Arbor, Michigan 48104, (734) 864-5600
(Name, address, including zip code, and telephone number, including area code, of agent for service)

From time to time after the effective date of this Registration Statement (Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

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

#### CALCULATION OF REGISTRATION FEE

Title of each class of	Amount to be	Proposed maximum	Amount of
securities to be registered	registered	aggregate offering price	registration fee(5)
Class A common stock, par			
value \$0.001 per share(6)	(1)	(2)(3)(4)	N/A
Warrants	(1)	(2)(3)(4)	N/A
Total	(1)	\$7,000,	,000 \$499.10

- (1) There are being registered hereunder an indeterminate number of shares of Class A Common Stock, par value \$0.001 per share ("Class A Stock") and an indeterminate amount of Warrants exercisable for shares of Class A Stock ("Warrants") for an aggregate initial offering price not to exceed \$7,000,000. Any securities registered hereunder may be sold separately or as units with other securities registered hereunder. The securities registered also include such indeterminate amounts and numbers of Class A Stock as may be issued upon exercise of the Warrants, or pursuant to the antidilution provisions of any such securities. In addition, pursuant to Rule 416 under the Securities Act of 1933, as amended, the securities being registered hereunder include such indeterminate number of shares of Class A Stock as may be issuable with respect to the securities being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (2) The proposed maximum offering price per security will be determined from time to time by the registrant in connection with the issuance of the securities registered by this registration statement.
- (3) Estimated solely for the purpose of calculating the registration fee. In no event will the (x) aggregate maximum offering price of all securities issued under this registration statement exceed \$7,000,000 or (y) aggregate market value of all securities issued in any given 12-calendar month period exceed the amount allowed for in General Instruction I.B.6 of Form S-3.
- (4) Not specified as to each class of securities to be registered hereunder. An indeterminate aggregate initial offering price or number of securities of each class of securities to be registered hereunder is being registered as may from time to time be offered at indeterminate prices. Separate consideration may or may not be received for securities that are issuable on exercise of other securities.
- (5) Calculated pursuant to Rule 457(o) of the rules and regulations under the Securities Act of 1933, as amended.
- (6) Shares of Class A Stock may be issued in primary offerings and/or upon the exercise of Warrants.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted

SUBJECT TO COMPLETION, DATED November 15, 2010

#### PROSPECTUS

\$7,000,000

#### CLASS A COMMON STOCK

#### **WARRANTS**

We may, from time to time, offer for sale in one or more issuances up to \$7,000,000 in the aggregate of: (1) shares of our Class A Common Stock, par value \$0.001 per share ("Class A Stock"); (2) warrants to purchase our Class A Stock ("Warrants"); or (3) any combination of the foregoing, in each case at prices and on terms that we determine at the time of the offering. We will provide the specific terms of these offerings and securities in one or more supplements to this prospectus. The prospectus supplement(s) may also add, update or change information contained in this prospectus.

You should carefully read this prospectus and the applicable prospectus supplement(s), as well as any documents incorporated by reference, before buying any of the securities being offered.

Our Class A Stock is traded on the NYSE Amex under the symbol "API." On November 10, 2010 the last reported sale price of our Class A Stock on the NYSE Amex was \$1.29. As of November 10, 2010, the aggregate market value of our outstanding Class A Stock held by non-affiliates was approximately \$29,030,472, based on 25,775,876 shares of outstanding Class A Stock, of which approximately 22,504,242 shares are held by non-affiliates, and a per share price of \$1.29, based on the closing sale price of our common stock on November 10, 2010. As of the date of this prospectus, we have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12-calendar month period that ends on and includes the date hereof.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained herein and in the applicable prospectus supplement(s) and under similar headings in the other documents that are incorporated by reference into this prospectus. See "Risk Factors" beginning on page 3 of this prospectus.

The securities being offered pursuant to this prospectus and the applicable prospectus supplement(s) may be sold by us to or through underwriters or dealers, directly to purchasers, through agents designated from time to time or through a combination of these methods. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is delivered, the names of such underwriters and any applicable discounts or commissions, and any over-allotment options, if any, will be set forth in the prospectus supplement(s).

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement. You should read this prospectus and any supplement carefully before you invest.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is November 15, 2010

## TABLE OF CONTENTS

	PAGE
CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING	
STATEMENTS	1
ABOUT THIS PROSPECTUS	1
ABOUT THE COMPANY	2
RISK FACTORS	3
USE OF PROCEEDS	14
PLAN OF DISTRIBUTION	14
DESCRIPTION OF CLASS A STOCK	16
DESCRIPTION OF WARRANTS	22
LEGAL MATTERS	24
EXPERTS	24
WHERE YOU CAN FIND MORE INFORMATION AND	
INCORPORATION BY REFERENCE	24

# CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS

We believe it is important to communicate our expectations to investors. However, there may be events in the future that we are not able to accurately predict or that we do not fully control that could cause actual results to differ materially from those expressed or implied. This prospectus, including the documents we incorporate by reference into it, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "expect," "believe," "anticipate," "outlook," "could," "target," "project," "intend," "plan," "seek," "estimate," "s "assume," and similar expressions are intended to identify forward-looking statements.

Forward-looking statements are subject to certain factors, risks and uncertainties that may cause actual results, events and performances to differ materially from those referred to in such statements, many of which are beyond our control. These risks include statements that address operating performance, events or developments that we expect or anticipate will occur in the future, such as projections about our future results of operations or our financial condition, research, development and commercialization of our product candidates, anticipated trends in our business, manufacture of sufficient and acceptable quantities of our proposed products, our strategies to grow our company, and other risks that could cause actual results to differ materially.

All forward-looking statements in this prospectus and the documents incorporated by reference into it are made only as of the date of the document in which they are contained, based on information available to us as of the date of that document, and we caution you not to place undue reliance on forward-looking statements in light of the risks and uncertainties associated with them. Except as required by law, we assume no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

#### ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC"), utilizing a "shelf" registration process. Under this shelf registration process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$7,000,000. Furthermore, in no event will we sell securities with a value exceeding more than one-third of our "public float" (the market value of our Class A Stock held by non-affiliates) in any 12-calendar month period.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of the applicable offering. The prospectus supplement may include additional risk factors or other special considerations applicable to those securities. Any prospectus supplement may also add, update, or change information in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in that prospectus supplement. You should read carefully both this prospectus and any prospectus supplement together with any additional information described under the headings "Risk Factors" and "Where You Can Find More Information and Incorporation by Reference" to determine whether an investment in our securities is appropriate for you.

1

We have not authorized any dealer, salesperson or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying supplement to this prospectus. You may rely only on the information contained or incorporated by reference in this prospectus or any accompanying prospectus supplement. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

As used in this prospectus, and unless the context indicates otherwise, the terms "our company," "we," "our," and "us" refer to Advanced Photonix, Inc., including its consolidated subsidiaries.

#### ABOUT THE COMPANY

We are 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® detectors and LED assemblies. Our 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. Our products serve customers in a variety of global markets, typically North America, Asia, Europe and Australia. The target markets served by us are Industrial Sensing/NDT, Military/Aerospace, Telecom, Medical and Homeland Security.

We were incorporated under the laws of the State of Delaware in June 1988. Our principal executive offices are located at 2925 Boardwalk, Ann Arbor, Michigan 48104, and our telephone number is (734) 864-5600. Our website is www.advancedphotonix.com. With the exception of the information specifically incorporated by reference into this prospectus, the information contained in, or that can be accessed through, our website is not a part of this prospectus.

#### RISK FACTORS

In addition to the factors discussed elsewhere in this prospectus and in the documents incorporated by reference in this prospectus, as well as any factors included in any prospectus supplement relevant to an offering of specific securities, the following are important factors that could cause actual results or events to differ materially from those contained in any forward-looking statements we make. Our business, financial condition or results of operations could be adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

The prospectus supplement applicable to each type or series of securities we offer may contain a discussion of risks applicable to the particular types of securities that we are offering under that prospectus supplement. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the caption "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained in the prospectus supplement or appearing or incorporated by reference in this prospectus.

#### 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.

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

While the company believes our ongoing cost controls will allow us to generate cash and achieve profitability in the future, there is no assurance as to when or if we will be able to achieve our projections. Our future cash flows from operations, combined with our accessibility to cash and credit, may not be sufficient to allow us to finance ongoing operations or to make required investments for future growth. We may need to seek additional credit or access capital markets for additional funds. The recent disruption in credit markets and our recent operating losses make it uncertain whether we will be able to access the credit markets when necessary or desirable. If we are not able to access credit markets and obtain financing on commercially reasonable terms when needed, our business could be materially harmed and our results of operations could be adversely affected.

We have previously violated certain covenants under our Loan Agreement with The PrivateBank and Trust Company.

At March 31, 2010, the company was not in compliance with the financial covenants under its loan agreement (the "Loan Agreement") with The PrivateBank and Trust Company (the "Lender"). This constituted an event of default under the terms of our Loan Agreement which gave the Lender the ability to provide us with notice that it is exercising its rights under the Loan Agreement to demand payment in full of the outstanding indebtedness under our Loan Agreement.

On June 25, 2010, the company and the Lender entered into a second amendment to the Loan Agreement (the "Second Amendment") pursuant to which the Lender waived any event of default under the Loan Agreement resulting from the covenant violations for the fiscal quarters ended December 31, 2009 and March 31, 2010 (the "covenant violations"). Among other things, the Second Amendment (1) updated the financial covenants (as defined in the Second Amendment) and (2) required the company to amend the secured promissory notes (the "PicometrixNotes") issued to Robin Risser and Steve Williamson, the company's CFO and CTO, respectively (the "Note Holders"), in connection with the company's acquisition of Picometrix, Inc. on May 2, 2005 by August 25, 2010 to defer the payment of the remaining fourth and fifth installment payments owed under the Picometrix Notes (the "Amendment Undertaking"). Under the Second Amendment, failure to satisfy the Amendment Undertaking by August 25, 2010 would constitute an event of default under the Loan Agreement.

On August 27, 2010, the company and the Lender entered into a third amendment to the Loan Agreement (the "Third Amendment") pursuant to which the Lender waived any event of default under the Loan Agreement resulting from the company's failure to satisfy the Amendment Undertaking. Among other things, the Third Amendment (1) increased the amount of proceeds from equity issuances that the company may use to make payments in respect of the Picometrix Notes and (2) extended the deadline set forth in the Second Amendment for amending the Picometrix Notes from August 25, 2010 to December 1, 2010.

While we believe we have good relations with our Lender, we can provide no assurance that we will be able to obtain waivers or amendments if future covenant violations occur under our Loan Agreement. Failure to obtain such waivers or amendments, if necessary, could materially affect our business, financial condition and results of operations.

We are required to amend the secured promissory notes issued to our CFO and CTO by December 1, 2010.

The Picometrix Notes bear an interest rate of prime plus 1.0% and are secured by all of the intellectual property of Picometrix, LLC (formerly known as Picometrix, Inc.), a wholly-owned subsidiary of the company. As noted above, under the terms of our Loan Agreement with our Lender, we are required to amend the Picometrix Notes by December 1, 2010 to defer the payment of the remaining fourth and fifth installment payments owed there under. Failure to amend the Picometrix Notes by December 1, 2010 will constitute an event of default under our Loan Agreement, which will give the Lender the ability to provide us with notice that it is exercising its rights under the Loan Agreement to demand payment in full of the outstanding indebtedness under our Loan Agreement. Our business could be materially harmed and our results of operations could be adversely affected if the outstanding indebtedness under our Loan Agreement were accelerated.

On November 10, 2010, we reached non-binding agreement in principle with the Note Holders to amend the repayment terms on the Picometrix Notes. Under the non-binding agreement in principle, (i) the scheduled December 1, 2010 principal payment installment will be reduced from \$450,000 to \$150,000; (ii) the remaining \$1,250,500 owed on the Picometrix Notes (the Remaining Balance) will be paid in quarterly installments during the period commencing on March 1, 2011 and ending on September 1, 2012; (iii) the Note Holders will receive (x) a restructuring fee equal to twelve and one-half percent (12.5%) of the Remaining Balance, half of which will be paid in cash and half of which will be paid in the form of shares of our Class A Common Stock (the Restructuring Shares) and (y) five (5) year warrants to purchase shares of our Class A Common Stock (the Warrants); and (iv) the interest rate on the Picometrix Notes will increase from prime plus 1.0% to prime plus 2.0%. The Lender has indicated it will accept the proposed amendment of the Picometrix Notes in fulfillment of the condition of the Loan Agreement requiring us to amend the Picometrix Notes on or before December 1, 2010 (the "Waiver").

On November 15, 2010, the company and the Note Holders entered into a securities purchase agreement (the "SPA") pursuant to which (A) we will issue and/or deliver to the Note Holders at the closing of the SPA (i) the number of Restructuring Shares determined by dividing the equity portion of the restructuring fee by the closing price per share of our Class A Common Stock on NYSE Amex on the business day immediately preceding the date of the closing of the SPA (the Formula Price); (ii) Warrants with an initial exercise price per share equal to 120% of the Formula Price that will be initially exercisable for the number of shares of our Class A Common Stock determined by dividing an amount equal to twenty-five percent (25%) of the Remaining Balance by 120% of the Formula Price; (iii) the cash portion of the restructuring fee; (iv) an aggregate \$5,000 expense reimbursement to cover costs incurred by the Note Holders in negotiating the note amendments and related documents; and (v) an executed counterpart to each Note Holders respective note amendment and (B) each Note Holder will deliver to us at the closing of the SPA a copy of his respective note amendment. The closing of the SPA and the issuance of the Restructuring Shares, the Warrants and other closing deliverables are subject to (x) the receipt of NYSE Amex approval of an additional listing application covering the Restructuring Shares and the Warrants, (y) the receipt of an amendment memorializing the Waiver, and (z) other closing conditions customary for transactions of this nature. No assurance can be given that all the closing conditions will be satisfied prior to the required December 1, 2010 deadline set forth in the Loan Agreement.

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

The company's goodwill is subject to an impairment test on an annual basis and is also tested whenever events and circumstances indicate that goodwill may be impaired. Any excess goodwill value resulting from the impairment test must be written off in the period of determination. Intangible assets (other than goodwill) are generally amortized over the useful life of such assets. In addition, from time to time, we may acquire or make an investment in a business which will require us to record goodwill based on the purchase price and the value of the acquired tangible and intangible assets. We may subsequently experience unforeseen issues with such business which adversely affect the anticipated returns of the business or value of the intangible assets and trigger an evaluation of the recoverability of the recorded goodwill and intangible assets for such business. Future determinations of significant write-offs of goodwill or intangible assets as a result of an impairment test or any accelerated amortization of other intangible assets could have a negative impact on our results of operations and financial condition.

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. During the last several years, the number of suppliers of components has decreased significantly and, more recently, demand for components has increased rapidly. Any supply deficiencies relating to the quality or quantities of components we use to manufacture our products could adversely affect our ability to fulfill customer orders and our results of operations. For example, during the quarter ended March 31, 2010, we experienced some limitations on the components available from certain of our suppliers, resulting in losses of anticipated sales and the related revenues.

5

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.

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 significant 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 title transfers 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.

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 2010, approximately 30% 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 2010, our sales to military contractors decreased 32%. 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. 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.

API competes 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 the company specializes 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.

In the current environment of declining average selling prices, we must continually seek ways to reduce our costs to maintain our operating profit and net income. The company's 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 Terahertz ("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.

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.

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 six 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.

We may be liable for damages based on product liability claims brought against our customers in our end-use markets.

Many of our products may provide critical performance attributes to our customers' products that will be sold to end users who could potentially bring product liability suits in which we could be named as a defendant. The sale of these products involves the risk of product liability claims. If a person were to bring a product liability suit against one of our customers, this customer may attempt to seek contribution from us. A person may also bring a product liability claim directly against us. A successful product liability claim or series of claims against us in excess of our insurance coverage for payments, for which we are not otherwise indemnified, could have a material adverse effect on our financial condition or results of operations. We have acquired product liability coverage of up to \$4 million.

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

The laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the rules adopted or proposed by the SEC, will result in increased costs to us as we evaluate the implications of any new rules and respond to their requirements. New rules could make it more difficult or more costly for us to comply with regulatory requirements, including our reporting obligations under the Exchange Act, and obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. We cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs to comply with any new rules and regulations, or if compliance can be achieved.

Risks Relating to Our Class A Stock

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

Our Class A 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 Stock.

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

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

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

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

Compliance with Regulation M may affect the marketability of our shares of Class A Stock.

During such time as we may be engaged in a distribution of the securities covered by this prospectus, we are required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes us, any affiliated purchasers, and any broker-dealer or other person who participates in such distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase, any security which is the subject of the distribution until the entire distribution is complete. Regulation M also restricts bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of our shares of Class A Stock.

#### USE OF PROCEEDS

Except as otherwise provided in a prospectus supplement, we will use the net proceeds from the sale of the securities we sell for general corporate purposes, including reducing our outstanding indebtedness and increasing our working capital. When particular securities are offered, the prospectus supplement relating to that offering will set forth our intended use of the net proceeds received from the sale of those securities we sell. Pending the application of the net proceeds for these purposes, we expect to invest the proceeds in short-term, interest-bearing instruments or other investment-grade securities.

#### PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities (1) to or through underwriters or dealers, (2) through agents, (3) directly to one or more purchasers and/or (4) through a combination of any such methods of sale. However, in any given twelve-month period, we may only sell securities hereunder with a value of up to one-third of our "public float" (the market value of our Class A Stock held by non-affiliates). We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- ♦ market prices prevailing at the time of sale;
- prices relating to the prevailing market prices;
- ♦ varying prices determined at the time of sale; or
- negotiated prices.

The applicable prospectus supplement with respect to a particular offering of securities will describe the terms of the offering of the securities, including:

- ♦ the name or names of any underwriters, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- ♦ any discount or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

14

We may solicit directly offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time. We will name in a prospectus supplement any agent involved in the offer or sale of our securities and we will describe any commissions we will pay the agent.

If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The applicable prospectus supplement will contain more information about the dealers, including the names of the dealers and the terms of our agreement with them.

If we utilize underwriters in the sale of the securities being offered by this prospectus, the underwriters will acquire the securities for their own account. Underwriters may offer the securities directly or through underwriting syndicates represented by one or more managing underwriters. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price, which may be changed, or at varying prices determined at the time of sale. We will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement which the underwriter will use to make resales of the securities to the public. The obligations of the underwriters to purchase the securities will be subject to certain conditions set forth in the applicable underwriting agreement.

In connection with the sale of the securities, we, or the purchasers of securities for whom the underwriters may act as agents, may compensate the underwriters in the form of underwriting discounts or commissions. The underwriters may sell the securities to or through dealers, and the underwriters may compensate those dealers in the form of discounts, concessions or commissions.

With respect to underwritten public offerings, negotiated transactions and block trades, we will provide in the applicable prospectus supplement any compensation we pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

Any securities other than our Class A Stock issued hereunder may be new issues of securities with no established trading market. Any underwriters or agents to or through whom such securities are sold for public offering and sale may make a market in such securities, but such underwriters or agents will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of the trading market for any such securities. The amount of expenses expected to be incurred by us in connection with any issuance of securities will be set forth in the applicable prospectus supplement. Certain of the underwriters, dealers or agents and their associates may engage in transactions with, and perform services for, us and certain of our affiliates in the ordinary course of business.

During such time as we may be engaged in a distribution of the securities covered by this prospectus we are required to comply with Regulation M promulgated under the Exchange Act. With certain exceptions, Regulation M precludes us, any affiliated purchasers, and any broker-dealer or other person who participates in such distribution from bidding for or purchasing, or attempting to induce any person to bid for or purchase, any security which is the subject of the distribution until the entire distribution is complete. Regulation M also restricts bids or purchases made in order to stabilize the price of a security in connection with the distribution of that security. All of the foregoing may affect the marketability of our shares of common stock.

#### DESCRIPTION OF CLASS A STOCK

#### General

The following summary of the material features of our Class A Stock does not purport to be complete and is subject to, and qualified in its entirety by the provisions of our Certificate of Incorporation, as amended, our By-laws and other applicable law. See "Where You Can Find More Information and Incorporation by Reference."

Pursuant to our Certificate of Incorporation, we are currently authorized to issue 110,000,000 shares, consisting of 100,000,000 shares of Class A Stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share, of which 780,000 shares are designated as Class A Convertible Preferred Stock, par value \$0.001 per share ("Class A Preferred Stock"), and of which 300,000 shares are designated as Series B Junior Participating Preferred Stock ("Series B Preferred Stock").

As of November 10, 2010, there were issued and outstanding 25,775,876 shares of Class A Stock. Additionally, as of that date, an aggregate of 3,869,509 shares of Class A Stock were reserved for issuance in connection with the grant of stock awards and upon the exercise of options granted or available for grant under our various equity plans or upon the exercise of warrants individually granted by the board of directors. As of November 10, 2010, there were no shares of Class A Preferred Stock or shares of Series B Preferred Stock issued and outstanding.

#### Class A Stock

#### Dividend Rights

Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our Class A Stock are entitled to receive dividends out of funds legally available at the times and in the amounts that our board of directors may determine. We have never declared or paid any cash dividends on our Class A Stock and do not expect to pay any dividends in the foreseeable future.

Voting Rights

Each holder of Class A Stock is entitled to one vote for each share of Class A Stock held on all matters submitted to a vote of stockholders. Cumulative voting for the election of directors is not provided for in our Certificate of Incorporation, which means that the holders of a majority of the shares voted can elect all of the directors then standing for election.

No Preemptive or Similar Rights

Holders of our Class A Stock do not have preemptive rights, and our Class A Stock is not convertible or redeemable.

Right to Receive Liquidation Distributions

Upon our dissolution, liquidation or winding-up, the assets legally available for distribution to our stockholders are distributable ratably among the holders of our Class A Stock, subject to the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Series B Preferred Stock

Our board of directors adopted a rights agreement in September 2002 pursuant to which each preferred stock purchase right distributed as a dividend entitles the holder to purchase one one-hundredth of a share of Series B Preferred Stock. For a summary of the rights agreement with respect to the Series B Preferred Stock, please see the description below under "Certain Anti-Takeover Matters – Certificate of Incorporation and By-laws."

Certain Anti-Takeover Matters

The provisions of Delaware law, our Certificate of Incorporation and our By-laws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Certificate of Incorporation and By-laws

Certain provisions of our Certificate of Incorporation and By-laws, including those providing for the issuance of Series B Preferred Stock pursuant to our rights plan and those giving our board of directors the power to issue shares of preferred stock and to set the voting rights, preferences and other terms thereof, may be deemed to have an anti-takeover effect and may discourage takeover attempts not first approved by the board of directors (including takeovers which certain stockholders may deem to be in their best interests). To the extent takeover attempts are discouraged, temporary fluctuations in the market price of the Class A Stock, which may result from actual or rumored takeover attempts, may be inhibited. These provisions could delay or frustrate the removal of incumbent directors or the assumption of control by stockholders, even if such removal or assumption would be beneficial to our stockholders. These provisions also could discourage or make more difficult a merger, tender offer or proxy contests, even if they could be favorable to the interests of stockholders, and could potentially depress the market price of the Class A Stock. The board of directors believes that these provisions are appropriate to protect our interest and the interests of our stockholders.

Our Certificate of Incorporation and By-laws provide that:

Issuance of Rights. Our Certificate of Incorporation authorizes the board of directors to create and issue rights entitling the holders thereof to purchase from us shares of capital stock or other securities. In September 2002, we adopted a rights agreement, which was amended and restated on February 4, 2005, pursuant to which we distributed one preferred stock purchase right as a dividend on each outstanding share of our Class A Stock. Each right entitles the holder to purchase one one-hundredth of a share of Series B Preferred Stock, par value \$0.001 per share, at a purchase price of \$5.00 per one one-hundredth of a preferred share, subject to adjustment to reflect stock splits, stock dividends or similar transactions. Our rights plan will expire in September 2012.

The rights will not be exercisable until:

- ten days after the public announcement that a person or group has become an "acquiring person" by obtaining beneficial ownership of 15% or more of our Class A Stock or, if earlier,
- ten business days (or a later date determined by our board of directors before any person or group becomes an acquiring person) after a person or group commences, or announces an intention to make, a tender or exchange offer that, if completed, would result in that person or group becoming an acquiring person.

The \$5.00 purchase price payable, and the number of preferred shares or other securities or property issuable, upon exercise of the rights are subject to adjustment from time to time to prevent dilution (i) in the event of a stock dividend on, or a subdivision, combination or reclassification of, the preferred shares, (ii) upon a grant to holders of the preferred shares of certain rights or warrants to subscribe for or purchase preferred shares at a price, or securities convertible into preferred shares with a conversion price, less than the then-current market price of the preferred shares or (iii) upon distribution to holders of the preferred shares of evidences of indebtedness or assets or of subscription rights or warrants.

In the event that we are the continuing or surviving corporation in a merger or other business combination transaction and all or part of the Class A Stock is changed into or exchanged for the common stock of another person or 50% or more of our consolidated assets or earning power are sold or transferred to another person, in each case after a person or group has become an acquiring person, proper provision will be made so that each right will entitle its holder to receive, upon the exercise thereof at the then current exercise price of the right, that number of shares of common stock of the acquiring company which at the time of such transaction will have a market value of two times the exercise price of the right. If a person or group becomes an acquiring person, each holder of a right, other than rights beneficially owned by the acquiring person, will have the right to receive upon exercise that number of Class A Stock having a market value of two times the exercise price of the right. At any time after any person or group becomes an acquiring person and prior to the acquisition by such person or group of 50% or more of the outstanding Class A Stock, the board of directors may exchange the rights at an exchange ratio of one Class A Stock share per right, subject to adjustment to reflect stock splits, stock dividends or similar transactions.

In general, we will be entitled to redeem the rights at \$0.001 per right at any time prior to the acquisition by a person or group of the beneficial ownership of 15% or more of the outstanding shares of Class A Stock. In addition, at any time after any person or group becomes an "acquiring person" and prior to the acquisition by such person or group of 50% or more of the outstanding Class A Stock, the board of directors may exchange the rights (other than rights owned by such person or group, which will have become void), in whole or in part, at an exchange ratio of one share of Class A Stock per right (subject to adjustment). The terms of our rights plan may be amended by our board of directors without the consent of the holders of our rights. After a person or group becomes an acquiring person, our board of directors may not amend the agreement in a way that adversely affects holders of our rights. The rights may be exercised until the earlier of (i) the close of business on September 10, 2012, (ii) the time at which the rights are redeemed, or (iii) the time at which such rights are exchanged.

Amendment of By-laws. Our By-laws provide that the By-laws may be altered, amended, repealed or added to by an affirmative vote of the stockholders representing a majority of the whole capital stock entitled to vote at an annual meeting or a special meeting called for that purpose. Our By-laws may also be altered, amended, repealed or added to by the affirmative vote taken at a regular or special meeting of the board of directors.

Issuance of Preferred Stock. Our board of directors is authorized to issue preferred stock without stockholder approval.

Meetings of Stockholders. The By-laws provide that, subject to the rights of preferred stockholders as to dividends or upon liquidation, a special meeting of stockholders may only be called by a majority of the board of directors unless otherwise required by law. Only those matters set forth in the notice of the special meeting may be considered or acted upon at that special meeting, unless otherwise provided by law. In addition, the By-laws set forth certain advance notice and informational requirements and time limitations on any director nomination or other business which a stockholder wishes to propose for consideration at an annual meeting of stockholders.

Indemnification of Officers and Directors. We will indemnify officers and directors against losses that they may incur in investigations and legal proceedings resulting from their services to us, which may include services in connection with takeover defense measures.

#### Delaware Anti-Takeover Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law, or Delaware law, regulating corporate takeovers. In general, these provisions prohibit a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder is approved by our board of directors before the date the interested stockholder attained that status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participates do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after that date, the business combination is approved by our board of directors and authorized at a meeting of stockholders, and not by written consent, by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlled by any of these entities or persons.

A Delaware corporation may opt out of this provision either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or by-laws approved by its stockholders. However, we have not opted out of this provision. The statute could prohibit or delay mergers or other takeover or change in control attempts and accordingly, may discourage attempts to acquire us.

Limitation of Liability and Indemnification Matters

Our Certificate of Incorporation limits, to the fullest extent permitted by Delaware law, the personal liability of directors for monetary damages for breach of their fiduciary duties as a director. In particular, our Certificate of Incorporation contains a provision permitted by Delaware law that generally eliminates the personal liability of directors for monetary damages for breaches of their fiduciary duty, including breaches involving negligence or gross negligence in business combinations, unless the director has breached his duty of loyalty to us or our stockholders, failed to act in good faith, engaged in intentional misconduct or a knowing violation of law, paid a dividend or approved a stock repurchase in violation of the Delaware law or obtained an improper personal benefit. This provision does not alter a director's liability under the federal securities laws or affect the availability of equitable remedies, such as an injunction or rescission, for breach of fiduciary duty.

Delaware law provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which our directors and officers may be entitled to under our By-laws, any agreement, a vote of stockholders or otherwise. Our Certificate of Incorporation and By-laws eliminate the personal liability of directors to the maximum extent permitted by Delaware law. In addition, our Certificate of Incorporation and By-laws provide that we may fully indemnify any person who is or was a party to or is threatened to be made a party to any threatened, pending or completed action, suit of proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was one of our directors, officers, employees or other agents, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding. Notwithstanding the preceding, insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors and officers pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Listing

Our Class A Stock is listed on the NYSE Amex and trades under the symbol "API".

#### Transfer Agent and Registrar

The transfer agent and registrar for our Class A Stock is Continental Stock Transfer & Trust Company. They are located at 17 Battery Place, 8th Floor, New York, New York 10004-1123. They can be reached via telephone at 212-509-4000.

#### DESCRIPTION OF WARRANTS

#### General

We may issue Warrants to purchase our Class A Stock. We may issue the Warrants independently or together with the underlying Class A Stock, and the Warrants may be attached or separate from the underlying Class A Stock. We may also issue Warrants under separate Warrant agreements to be entered into between us and each of the initial holders of such Warrants.

The following description is a summary of selected provisions relating to the Warrants that we may issue. The summary is not complete. When Warrants are offered in the future, a prospectus supplement will explain the particular terms of those securities and the extent to which these general provisions may apply. The specific terms of the Warrants as described in a prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section.

This summary and any description of Warrants in the applicable prospectus supplement is subject to and is qualified in its entirety by reference to all the provisions of any specific Warrant document or agreement, which we will file with the SEC for incorporation by reference into this prospectus. See "Where You Can Find Additional Information" and "Incorporation by Reference" for information on how to obtain a copy of a Warrant document when it is filed.

#### Terms

The applicable prospectus supplement may describe the terms of any Warrants that we may offer, including but not limited to the following:

- the title of the Warrants;
- ♦ the total number of Warrants;
- the price or prices at which the Warrants will be issued;
- $\ensuremath{\blacklozenge}$  the currency or currencies that investors may use to pay for the Warrants;
- the date on which the right to exercise the Warrants will commence and the date on which the right will expire;
- if applicable, the minimum or maximum amount of Warrants that may be exercised at any one time;

22

- if applicable, the date on and after which the Warrants and the related underlying Class A Stock will be separately transferable;
- if applicable, a discussion of material United States federal income tax considerations;
- if applicable, the terms of redemption of the Warrants;
- the procedures and conditions relating to the exercise of the Warrants; and
- any other terms of the Warrants, including terms, procedures, and limitations relating to the exchange and exercise of the Warrants.

#### Warrant Agreements

We may issue Warrants under one or more Warrant agreements, each to be entered into between us and each initial holder of such Warrants.

#### Form, Exchange, and Transfer

We may issue Warrants in non-global form, i.e., bearer form. If any Warrants are issued in non-global form, Warrant certificates may be exchanged for new Warrant certificates of different denominations, and holders may exchange, transfer, or exercise their Warrants at the office indicated in the applicable prospectus supplement or other offering material.

Prior to the exercise of their Warrants, holders of Warrants will not have any rights of holders of the Class A Stock purchasable upon such exercise and will not be entitled to dividend payments, if any, or voting rights of the Class A Stock purchasable upon such exercise.

#### Exercise of Warrants

A Warrant will generally entitle the holder to purchase for cash an amount of Class A Stock at an exercise price that will be stated in, or that will be determinable as described in, the applicable prospectus supplement or other offering material. Warrants may be exercised at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement or other offering material. After the close of business on the expiration date, unexercised Warrants will become void. Warrants may be redeemed as set forth in the applicable prospectus supplement or other offering material.

Warrants may be exercised as set forth in the applicable prospectus supplement or other offering material. Upon receipt of payment and the Warrant certificate properly completed and duly executed at the office indicated in the prospectus supplement or other offering material, we will forward, as soon as practicable, the Class A Stock purchasable upon such exercise. If less than all of the Warrants represented by such Warrant certificate are exercised, a new Warrant certificate will be issued for the remaining Warrants.

#### LEGAL MATTERS

Dornbush Schaeffer Strongin & Venaglia, LLP, New York, New York, will pass upon certain legal matters in connection with any offering of securities made by this prospectus, including the validity of the issuance of the shares being offered hereby.

#### **EXPERTS**

The consolidated financial statements and schedule incorporated by reference in this prospectus from our Annual Report on Form 10-K for the year ended March 31, 2010 have been so incorporated in reliance on the report of BDO Seidman, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

# WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION BY REFERENCE

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any public offering document we file, including a copy of the registration statement on Form S-3 of which this prospectus is a part, without charge at the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. You can also request copies of all or any portion of these documents by writing the Public Reference Section and paying certain prescribed fees. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Additionally, the SEC maintains an internet site that contains reports, proxies and information statements and other information regarding electronic filers and these documents are available to the public from the SEC's web site at http://www.sec.gov. In addition, you may find copies of our filings with the SEC at our website, www.advancedphotonix.com.

The SEC allows us to "incorporate by reference" in this prospectus the information we file with the SEC. This means that we are disclosing important information to you by referring to other documents. The information incorporated by reference is considered to be part of this prospectus, except for any information superseded by information contained in this prospectus or by any information in a prospectus supplement accompanying this prospectus. Information that we file later with the SEC under the Exchange Act will automatically update information in this prospectus. In all cases, you should rely on the later information over different information included in this prospectus. The following documents, which were previously filed with the SEC pursuant to the Exchange Act, are hereby incorporated by reference in this prospectus, excluding any disclosures therein that are furnished and not filed:

- ♦ Our Annual Report on Form 10-K for the fiscal year ended March 31, 2010 filed on June 29, 2010;
- ♦ Our Proxy Statement on Schedule 14A for our Annual Meeting of Stockholders filed on July 15, 2010;
- ♦ Our Quarterly Report on Form 10-Q for the quarter ended July 2, 2010 filed on August 16, 2010;
- ♦ Our Quarterly Report on Form 10-Q for the quarter ended October 1, 2010 filed on November 15, 2010;
- ◆ Current Reports on Form 8-K filed on May 25, 2010, August 23, 2010, August 27, 2010, September 20, 2010 and November 12, 2010; and
- ♦ The description of our Class A Stock contained in our Registration Statement on Form 8-A dated January 16, 1991 filed under the Exchange Act, including any amendments or reports filed for the purposes of updating such description.

In addition, all reports and other documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial filing of the registration statement on Form S-3 of which this prospectus is a part and prior to the termination of the offering of the securities described in this prospectus shall be deemed to be incorporated by reference into this prospectus and shall be a part hereof from the respective dates of filing such reports and documents (excluding any disclosures therein that are furnished and not filed).

You may request a copy of these filings, or any other documents or other information referred to in, or incorporated by reference in, this prospectus, at no cost, by writing or calling us at the following address or telephone number:

Advanced Photonix, Inc. 2925 Boardwalk, Ann Arbor, Michigan 48104 Attention: Secretary, (734) 864-5600.

Exhibits to any documents incorporated by reference in this prospectus will not be sent, unless those exhibits have been specifically referenced in this prospectus.

#### PART II

#### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 14. Other Expenses of Issuance and Distribution

The following table sets forth all fees and expenses, other than underwriting discounts and commission, payable by the registrant in connection with this offering. All amounts shown are estimates except for the SEC registration fee.

		Amount	
SEC Registration Fee	\$	499.10	
Accounting Fees and Expenses	\$	15,000.00	
Legal Fees and Expenses	\$	25,000.00	
Miscellaneous Fees	\$	10,000.00	
Total	\$	50,499.10	

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify a director, officer, employee or agent made a party to an action by reason of the fact that he or she was a director, officer, employee or agent of the corporation or was serving at the request of the corporation against expenses actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and with respect to any criminal action, had no reasonable cause to believe his or her conduct was unlawful.

Our Certificate of Incorporation limits, to the fullest extent permitted by Delaware law, the personal liability of directors for monetary damages for breach of their fiduciary duties as a director. It also contains a provision permitted by Delaware General Corporation Law that generally eliminates the personal liability of directors for monetary damages for breaches of their fiduciary duty, including breaches involving negligence or gross negligence in business combinations, unless the director has breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or a knowing violation of law, paid a dividend or approved a stock repurchase in violation of the Delaware General Corporation Law or obtained an improper personal benefit. This provision does not alter a director's liability under the federal securities laws or affect the availability of equitable remedies, such as an injunction or rescission, for breach of fiduciary duty.

Our By-Laws also provide that directors and officers shall be indemnified against liabilities arising from their service as directors or officers to the fullest extent permitted by Delaware law, which generally requires that the individual act in good faith and in a manner he or she reasonably believes to be in or not opposed our best interests.

## Item 16. Exhibits

Exhibit No.	Description
1.1	Form of Underwriting Agreement*
3.1	Certificate of Incorporation of Advanced Photonix, Inc., as amended – incorporated by reference to Exhibit 3.1 to Advanced Photonix, Inc's Registration Statement on Form S-1, filed on November 23, 1990.
3.1.1	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated August 14, 1992 – incorporated by reference to Advanced Photonix, Inc.'s March 31, 1996 Annual Report on Form 10-K.
3.1.2	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated October 29, 1992 – incorporated by reference to Advanced Photonix, Inc.'s March 31, 1996 Annual Report on Form 10-K.
2.1.2	
3.1.3	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated August 22, 2008 – incorporated by reference to Exhibit 3.1 to Advanced Photonix, Inc's Form 10-Q for the period ended July 2, 2010 as filed with the Securities and Exchange Commission on August 16, 2010.
3.2	By-laws of Advanced Photonix, Inc., as amended – incorporated by reference to Exhibit 3.(ii) to Advanced Photonix, Inc.'s Form 8-K as filed with the Securities and Exchange Commission on June 14, 2007.
4.1	Form of Warrant Agreement*
5.1	Opinion of Dornbush Schaeffer Strongin & Venaglia, LLP.
23.1	Consent of BDO USA, LLP (formerly known as BDO Seidman, LLP).
23.1	Consent of DDO COA, DEI (toffficity known as DDO Sciulian, LEI).
23.2	Consent of Dornbush Schaeffer Strongin & Venaglia, LLP, included in Exhibit 5.1.
24.1	Power of Attorney.

<sup>\*</sup> If applicable, to be filed by amendment or by a report filed under the Securities Exchange Act of 1934, as amended, and incorporated herein by reference.

II-2

#### Item 17. Undertakings

- (a) The undersigned registrant hereby undertakes:
  - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
  - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference into this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of this registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
  - (4) That, for the purpose of determining liability under the Securities Act to any purchaser:
- (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and include in the registration statement; and
- (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
  - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-4

- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (d) The undersigned registrant hereby undertakes that:
- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by he registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II-5

#### **SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933 the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Ann Arbor, state of Michigan on November 15, 2010.

## ADVANCED PHOTONIX, INC.

By: /s/ Richard D. Kurtz

Name: Richard D. Kurtz

Title: Chairman of the Board, Chief Executive

Officer, President and Director

#### **SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE TITLE DATE

PRINCIPAL EXECUTIVE OFFICER:

/s/ Richard D. Kurtz Chairman of the Board, November 15, 2010

Richard D. Kurtz Chief Executive Officer,

President and Director

PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER:

/s/ Robin F. Risser Chief Financial Officer November 15, 2010

Name: Robin F. Risser and Director

DIRECTORS:

By: /s/ Richard D. Kurtz Director November 15, 2010

Name: Lance Brewer

By: Richard D. Kurtz, Attorney-in-Fact

By: /s/ Richard D. Kurtz Director November 15, 2010

Name: M. Scott Farese

By: Richard D. Kurtz, Attorney-in-Fact

By: /s/ Richard D. Kurtz Director November 15, 2010

Name: Donald Pastor

By: Richard D. Kurtz, Attorney-in-Fact

By: /s/ Richard D. Kurtz Director November 15, 2010

Name: Stephen P. Soltwedel

By: Richard D. Kurtz, Attorney-in-Fact

## EXHIBIT INDEX

Exhibit No.	Description
1.1	Form of Underwriting Agreement*
3.1	Certificate of Incorporation of Advanced Photonix, Inc., as amended – incorporated by reference to Exhibit 3.1 to Advanced Photonix, Inc's Registration Statement on Form S-1, filed on November 23, 1990.
3.1.1	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated August 14, 1992 – incorporated by reference to Advanced Photonix, Inc.'s March 31, 1996 Annual Report on Form 10-K.
3.1.2	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated October 29, 1992 –
5.1.2	incorporated by reference to Advanced Photonix, Inc., inc., dated October 29, 1992 – incorporated by reference to Advanced Photonix, Inc., is March 31, 1996 Annual Report on Form 10-K.
	•
3.1.3	Amendment to Certificate of Incorporation of Advanced Photonix, Inc., dated August 22, 2008 – incorporated by reference to Exhibit 3.1 to Advanced Photonix, Inc's Form 10-Q for the period ended July 2, 2010 as filed with the Securities and Exchange Commission on August 16, 2010.
3.2	By-laws of Advanced Photonix, Inc., as amended – incorporated by reference to Exhibit 3.(ii) to
3.2	Advanced Photonix, Inc.'s Form 8-K as filed with the Securities and Exchange Commission on June 14, 2007.
4.1	Form of Warrant Agreement*
71	
5.1	Opinion of Dornbush Schaeffer Strongin & Venaglia, LLP.
23.1	Consent of BDO USA, LLP (formerly known as BDO Seidman, LLP).
23.1	Consent of BDO USA, LET (formerly known as BDO Sciuman, LET).
23.2	Consent of Dornbush Schaeffer Strongin & Venaglia, LLP, included in Exhibit 5.1.
24.1	Power of Attorney.

<sup>\*</sup> If applicable, to be filed by amendment or by a report filed under the Securities Exchange Act of 1934, as amended, and incorporated herein by reference.