

ADVANCED PHOTONIX INC  
Form 424B5  
January 10, 2011

Filed pursuant to Rule 424(b)(5)  
Registration No. 333-171390

PROSPECTUS SUPPLEMENT  
(to the Prospectus dated December 23, 2010)

2,702,703 SHARES OF CLASS A COMMON STOCK

We are offering 2,702,703 shares of our Class A Common Stock, par value \$0.001 per share (“Class A Stock”) pursuant to this prospectus supplement and the accompanying prospectus. The purchase price for each share of Class A Stock is \$1.48 (the “Public Offering Price”).

Our Class A Stock is traded on the NYSE Amex under the symbol “APL.” On January 5, 2011 the last reported sale price of our Class A Stock on the NYSE Amex was \$1.70. As of January 5, 2011, the aggregate market value of our outstanding Class A Stock held by non-affiliates was approximately \$38,594,702, based on 26,041,199 shares of outstanding Class A Stock, of which approximately 22,512,266 shares are held by non-affiliates, and a per share price of \$1.70, based on the closing sale price of our Class A Stock on January 5, 2011. 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 Class A Stock involves a high degree of risk. Before buying any shares of our Class A Stock, you should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page S-4 of this prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus supplement.

We are offering the shares of our Class A Stock described in this prospectus supplement in an underwritten offering in which B. Riley & Co., LLC (the “Underwriter”) is acting as the sole underwriter. We have entered into an underwriting agreement with the Underwriter with respect to the Class A Stock being offered. Subject to the terms and conditions contained in the underwriting agreement, the Underwriter has agreed to purchase, and we have agreed to sell, 2,702,703 shares of our Class A Stock.

The underwriting fee is equal to the Public Offering Price per share of Class A Stock less the amount paid by the Underwriter to us per share of Class A Stock. The following table shows the per share and total underwriting discounts to be paid to the Underwriter in this offering.

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	Per Share	Total
Public Offering Price	\$ 1.480	\$4,000,000
Underwriter discounts (1)	\$ 0.089	\$ 240,000
Proceeds, before expenses, to Advanced Photonix, Inc.	\$ 1.391	\$3,760,000

- (1) We have also agreed to reimburse the Underwriter for certain out-of-pocket-expenses incurred by it up to an aggregate of \$25,000 with respect to this offering.

In addition, we have also granted the Underwriter an option to purchase up to an additional 405,405 shares of our Class A Stock at the Public Offering Price, less underwriting discounts payable by us, within 30 days of the date of the underwriting agreement to cover over-allotments, if any. If the Underwriter exercises its option in full, the total underwriter fees will be \$276,000 and our total proceeds, before expenses, will be \$4,324,000.

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 SUPPLEMENT OR THE ACCOMPANYING PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The Underwriter is offering the Class A Stock as set forth under "Underwriting." The Underwriter expects to deliver the Class A Stock in book-entry form only, through the facilities of The Depository Trust Company, against payment on or about January 18, 2011, or such earlier date as the Underwriter and the Company may agree; provided, however, the Company shall not be obligated to sell and the Underwriter shall not be obligated to purchase Class A Stock unless and until the Company shall have received notification that NYSE Amex has approved the Company's additional listing application to list the Class A Stock issued accordance with the underwriting agreement on NYSE Amex (the "Additional Listing Application") and provided further, that if NYSE Amex does not approve the Additional Listing Application on or prior to January 18, 2011, the underwriting agreement will automatically terminate and no shares of Class A Stock will be issued pursuant to this prospectus supplement and the accompanying prospectus.

Sole Underwriter

B. Riley & Co., LLC

The date of this prospectus supplement is January 6, 2011.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 (Registration File No. 333-171390) that we filed with the Securities and Exchange Commission (“SEC”) utilizing a “shelf” registration process. Under this shelf registration process, we may, from time to time, sell shares of our Class A Stock, warrants to purchase shares of our Class A Stock, or any combination thereof in one or more offerings up to a total dollar amount of \$7,000,000.

This document is in two parts. The first part is the prospectus supplement describes the specific terms of this offering. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document and the documents incorporated herein and therein by reference. We urge you to carefully read all of these documents before buying any of the Class A Stock being offered under this prospectus supplement. This prospectus supplement may add or update information contained in the accompanying prospectus and the documents incorporated by reference therein. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference therein that was filed before the date of this prospectus supplement, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference therein.

You should rely only on the information contained, or incorporated herein by reference, in this prospectus supplement and contained, or incorporated therein by reference, in the accompanying prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus supplement and the accompanying prospectus. You should not rely on any unauthorized information or representation. You should assume that the information in this prospectus supplement and the accompanying prospectus is accurate only as of the date on the front of the applicable document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus, or any sale of a security. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the caption “Where You Can Find More Information and Incorporation by Reference” in this prospectus supplement and the accompanying prospectus.

We are offering to sell, and are seeking offers to buy, Class A Stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the Class A Stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about and observe any restrictions relating to the offering of the Class A Stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any Class A Stock offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

We are not making any representation to you regarding the legality of an investment in the Class A Stock by you under applicable law. You should consult with your own legal advisors as to the legal, tax, business, financial and related aspect of a purchase of the Class A Stock.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to “our company,” “we,” “our,” and “us” refer to Advanced Photonix, Inc., including its consolidated subsidiaries.

#### 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 supplement, the accompanying prospectus and the documents incorporated by reference herein or therein contain 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 or therein 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,” “should,” “may” and “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 supplement, the accompanying prospectus and the documents incorporated by reference herein or therein 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.

#### PROSPECTUS SUPPLEMENT SUMMARY

This summary is not complete and does not contain all of the information that you should consider before investing in the Class A Stock offered by this prospectus supplement. You should read this summary together with the entire prospectus supplement and the accompanying prospectus, including our financial statements, the notes to those financial statements and the other documents that are incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. See the Risk Factors section of this prospectus supplement beginning on page S-4 for a discussion of certain risks involved in investing in our Class A Stock.

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 through hybridization of support electronics, packaging and signal conditioning or processing and 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](http://www.advancedphotonix.com). Information contained in or accessible through our website does not constitute part of this prospectus supplement or the accompanying prospectus.

THE OFFERING

Class A Stock offered by us pursuant to this prospectus supplement	2,702,703 shares of Class A Stock (or 3,108,108 shares of Class A Stock if the Underwriter exercises its over-allotment option in full).
Class A Stock to be outstanding after this offering	28,743,902 shares of Class A Stock (or 29,149,307 shares of Class A Stock if the underwriter exercises its over-allotment option in full).(1)
Over-allotment option	405,405 shares of Class A Stock
Use of proceeds	General corporate purposes. For more information, see “Use of Proceeds” on page S-15.
NYSE Amex symbol	“API”
Risk factors	This investment involves a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in our Class A Stock.

(1) The number of shares of our Class A Stock to be outstanding immediately after the closing of this offering is based on 26,041,199 shares of Class A Stock outstanding as of January 5, 2011 and excludes:

- 2,167,100 shares of Class A Stock issuable upon the exercise of outstanding stock options as of January 6, 2011 at a weighted average exercise price of \$1.647 per share;
- 1,745,305 shares of Class A Stock issuable upon the exercise of outstanding warrants as of January 6, 2011 at a weighted average exercise price of \$1.694 per share; and
- 1,353,766 shares of Class A Stock available for future grant under our various equity plans.

#### RISK FACTORS

An investment in our Class A Stock involves a substantial risk of loss. You should carefully consider these risk factors, together with all of the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, as modified and superseded pursuant to Rule 412 under the Securities Act of 1933, as amended, or the Securities Act, before you decide to invest in our Class A Stock. The occurrence of any of the following risks could harm our business. In that case, the trading price of our Class A Stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our operations. You should also refer to the other information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference, including our financial statements and the notes to those statements and the information set forth under the heading "Cautionary Statements Regarding Forward-Looking Statements."

#### 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.

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.



As disclosed in the Current Report on Form 8-K that we filed with the SEC on December 2, 2010, on November 30, 2010, the company and the Lender entered into a fourth amendment to the Loan Agreement (the "Fourth Amendment") pursuant to which, among other things, the Lender terminated the Amendment Undertaking in connection with the amendment of the Picometrix Notes.

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.

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.

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, 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 and to exposure under the Foreign Corrupt Practices Act.

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

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

In addition, 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.

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

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 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 these 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.

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

We estimate that the net proceeds of this offering will be approximately \$3,700,000 based on a Public Offering Price of \$1.48 per share and after deducting (i) underwriting discounts of approximately \$240,000 and (ii) other offering expenses, which we estimate will be approximately \$60,000. We intend to use the net proceeds from the sale of Class A Stock under this prospectus supplement for general corporate purposes, including reducing our outstanding indebtedness, increasing our working capital and expanding our products. We may also use a portion of the net proceeds to acquire or invest in businesses and products that are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus supplement.

Until we use the net proceeds of this offering for the above purposes, we intend to invest the funds in short-term, interest-bearing instruments or other investment-grade securities. We cannot predict whether the proceeds invested will yield a favorable return. We have not yet determined the amount or timing of the expenditures for the categories listed above, and these expenditures may vary significantly depending on a variety of factors. As a result, we will retain broad discretion over the use of the net proceeds from this offering.

#### DETERMINATION OF OFFERING PRICE

We established the Public Offering Price following negotiations with prospective investors and with reference to the prevailing market price of our Class A Stock, recent trends in such price, daily average trading volume of our Class A Stock, our current stage of development, future capital needs and other factors.

#### DIVIDEND POLICY

We have not paid dividends on our Class A Stock in the past and have no present intention of paying dividends in the foreseeable future.

## DILUTION

If you invest in our Class A Stock, you will experience dilution to the extent of the difference between the Public Offering Price and the net tangible book value per share of our Class A Stock immediately after this offering.

Our net tangible book value (deficit) as of October 1, 2010 was \$3,306,827, or \$0.127 per share of Class A Stock. Net tangible book value (deficit) per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of Class A Stock outstanding as of that date.

Without taking into account any other changes in the net tangible book value after October 1, 2010 other than to give effect to our receipt of the estimated net proceeds from the sale of 2,702,703 shares of our Class A Stock at the Public Offering Price of \$1.48 per share, less the underwriting fees and our estimated offering expenses, our net tangible book value as of January 6, 2011, after giving effect to the items above, would have been approximately \$7,006,827, or \$0.244 per share. This represents an immediate increase in the net tangible book value of \$0.117 per share to existing stockholders and an immediate dilution of \$1.236 per share to new investors purchasing our Class A Stock in this offering. If the Underwriter exercises its over-allotment option in full to purchase 405,405 additional shares of our Class A Stock in this offering, the pro forma as adjusted net tangible book value per share after the offering would be \$0.261 per share, the increase in the pro forma net tangible book value per share to existing stockholders would be \$0.134 per share and the pro forma dilution to new investors purchasing Class A Stock in this offering would be \$1.219 per share. The following table illustrates this per share dilution:

	Total Without Over-allotment Exercise	Total With Over- allotment Exercise
Public Offering Price for one share of Class A Stock	\$ 1.480	\$ 1.480
Net Tangible Book value per share as of October 1, 2010	\$ 0.127	\$ 0.127
Increase (decrease) per share attributable to the offering	\$ 0.117	\$ 0.134
Adjusted net tangible book value per share after this offering	\$ 0.244	\$ 0.261
Dilution per share to new investors	\$ 1.236	\$ 1.219

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The above table is based on 28,743,902 shares of Class A Stock outstanding as of January 6, 2011 (or 29,149,307 shares of Class A Stock if the Underwriter exercises its option to purchase additional shares in full), and excludes, as of that date:

- 2,167,400 shares of Class A Stock issuable upon the exercise of outstanding stock options as of January 6, 2011 at a weighted average exercise price of \$1.647 per share;
- 1,745,305 shares of Class A Stock issuable upon the exercise of outstanding warrants as of January 6, 2011 at a weighted average exercise price of \$1.694 per share; and
- 1,353,766 shares of Class A Stock available for future grant under our various equity plans.

There will be further dilution to new investors to the extent that any of these options and/or warrants are exercised, new options, restricted stock units or warrants are issued under our equity incentive plans or we issue additional shares of Class A Stock in the future or assume outstanding options in connection with future acquisitions.

As a percentage of ownership, following the offering (based on 28,743,902 shares of Class A Stock outstanding as of January 6, 2011 and assuming that our existing stockholders do not purchase any shares in this offering):

- the number of shares of our Class A Stock held by existing stockholders would decrease from 100% to 90.6% of the total number of shares of our Class A Stock outstanding after this offering; and
- the number of shares of our Class A Stock held by new investors would be approximately 9.4% of the total number of shares of our Class A Stock outstanding after this offering.

Additionally, if the Underwriter exercises its option to purchase 405,405 additional shares of Class A Stock in full, as described below in the section entitled "Underwriting," the following will occur:

- The number of shares of our Class A Stock held by existing stockholders would decrease to 89.3% of the total number of shares of our Class A Stock outstanding after this offering; and
- the number of shares of our Class A Stock held by new investors would increase to approximately 10.7% of the total number of shares of our Class A Stock outstanding after this offering.

## UNDERWRITING

We are offering the shares of our Class A Stock described in this prospectus supplement in an underwritten offering in which B. Riley & Co., LLC (the “Underwriter”) is acting as the sole underwriter. We have entered into an underwriting agreement with the Underwriter with respect to the Class A Stock being offered. Subject to the terms and conditions contained in the underwriting agreement, the Underwriter has agreed to purchase, and we have agreed to sell, 2,702,703 shares at the Public Offering Price, less the underwriting discounts, as set forth on the cover page of this prospectus supplement and as indicated below, subject to an option to purchase all or a portion of an additional 405,405 shares to cover over-allotments, if any, made in connection with the offering. The underwriting agreement with the Underwriter will be included as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement.

Subject to the terms and conditions in the underwriting agreement, the Underwriter is committed to purchase and pay for all shares of our Class A Stock offered by this prospectus supplement, if any such shares are taken. However, the Underwriter is not obligated to take or pay for the shares of our Class A Stock covered by the Underwriter’s over-allotment option described below, unless and until such option is exercised.

We have granted the Underwriter an option, exercisable no later than 30 calendar days after the date of the underwriting agreement, to purchase up to an aggregate of 405,405 additional shares of Class A Stock at the Public Offering Price, less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement and as indicated below. We will be obligated to sell these shares of Class A Stock to the Underwriter to the extent the over-allotment option is exercised. The Underwriter may exercise this option only to cover over-allotments, if any, made in connection with the sale of our Class A Stock offered by this prospectus supplement.

The Underwriter proposes to offer our Class A Stock directly to the public at the Public Offering Price set forth on the cover page of this prospectus supplement. The Underwriter expects to deliver the Class A Stock in book-entry form only, through the facilities of The Depository Trust Company, against payment on or about January 18, 2011, or such earlier date as the Underwriter and the Company may agree; provided, however, the Company shall not be obligated to sell and the Underwriter shall not be obligated to purchase Class A Stock unless and until the Company shall have received notification that NYSE Amex has approved the Company’s additional listing application to list the Class A Stock issued accordance with the underwriting agreement on NYSE Amex (the “Additional Listing Application”) and provided further, that if NYSE Amex does not approve the Additional Listing Application on or prior to January 18, 2011, the underwriting agreement will automatically terminate and no shares of Class A Stock will be issued pursuant to this prospectus supplement and the accompanying prospectus.

The following table shows the per share and total underwriting discounts that we will pay to the Underwriter and the proceeds we will receive before expenses. These amounts are shown assuming both no exercise and full exercise of the Underwriter’s option to purchase additional shares of our Class A Stock.

	Per Share	Total Without Over-allotment Exercise	Total With Over- allotment Exercise
Public offering price	\$ 1.480	\$ 4,000,000	\$ 4,600,000
Underwriting discount payable by us	\$0.089	\$ 240,000	\$ 276,000
Proceeds to us (before expenses)	\$ 1.391	\$ 3,760,000	\$ 4,324,000

We have also agreed to reimburse the Underwriter for certain reasonable travel, legal and other out-of-pocket expenses. The maximum compensation to be received by the Underwriter will not exceed 8% of the aggregate offering proceeds.

We estimate the total offering expenses of this offering that will be payable by us, excluding the underwriting discount, will be approximately \$60,000, which includes legal and printing costs, various other fees and reimbursement of certain of the underwriter's expenses.

We have agreed to indemnify the Underwriter and persons who control the Underwriter against certain liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments the Underwriter may be required to make in respect of such liabilities.

We, along with certain of our executive officers, have agreed to certain lock-up provisions with regard to future sales of our Class A Stock and other securities exercisable or exchangeable for Class A Stock for a period of 180 days with respect to us and a 90 day period with respect to such executive officers; provided, however, that if the price of our Class A Stock as listed on its public exchange closes at or above \$1.85 per share for each of ten (10) consecutive trading days, then our lock-up period shall be deemed automatically terminated upon the close of trading on the 10th such day. The lock-up period applicable to both us and such executive officers may be extended under certain circumstances in accordance with the terms of the applicable lock-up agreements.

Our Class A Stock is traded on the NYSE Amex under the symbol "API." On January 5, 2011 the last reported sale price of our Class A Stock on the NYSE Amex was \$1.70.

In connection with this offering the Underwriter may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids.

- Rules of the SEC may limit the ability of the Underwriter to bid for or purchase shares of our Class A Stock before the distribution of the Class A Stock is completed. However, to facilitate the offering, the Underwriter may engage in transactions that stabilize, maintain or otherwise affect the price of our Class A Stock during and after the offering. In particular, stabilizing transactions permit bids to purchase shares of Class A Stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the Class A Stock while the offering is in progress.
- Over-allotment transactions involve sales by the Underwriter of shares of Class A Stock in excess of the number of shares the Underwriter is obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares of Class A Stock over-allotted by the Underwriter is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The Underwriter may close out any short position by exercising their over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of Class A Stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the Underwriter will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the over-allotment option. If the Underwriter sells more shares than could be covered by exercise of the over-allotment option and, therefore, has a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the Underwriter is concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on the NYSE Amex or otherwise and, if commenced, may be discontinued at any time.

Neither we nor the Underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our Class A Stock.

#### DESCRIPTION OF CLASS A STOCK

The material terms and provisions of our Class A Stock are described under the caption "Description of Class A Stock" starting on page 16 of the accompanying prospectus.

#### 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 supplement 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](http://www.advancedphotonix.com).

The SEC allows us to "incorporate by reference" in this prospectus supplement 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 supplement, except for any information superseded by information contained in this prospectus supplement. Any statement in a document we incorporate by reference into this prospectus supplement or the accompanying prospectus will be considered to be modified or superseded to the extent a statement contained in this prospectus supplement or any other subsequently filed document that is incorporated by reference into this prospectus supplement modifies or supersedes that statement. The modified or superseded statement will not be considered to be a part of this prospectus supplement or accompanying prospectus, as applicable, except as modified or superseded. The following documents, which were previously filed with the SEC pursuant to the Exchange Act, are hereby incorporated by reference in this prospectus supplement:

- ◆ 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, November 15, 2010, December 2, 2010 and December 23, 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.



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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 supplement is a part and prior to the termination of the offering of the securities described in this prospectus supplement 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 current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items).

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 supplement, 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 supplement or the accompanying prospectus will not be sent, unless those exhibits have been specifically referenced in this prospectus supplement or the accompanying prospectus.

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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 December 22, 2010, the last reported sale price of our Class A Stock on the NYSE Amex was \$1.55. As of December 22, 2010, the aggregate market value of our outstanding Class A Stock held by non-affiliates was approximately \$35,189,287, based on 26,041,199 shares of outstanding Class A Stock, of which approximately 22,702,766 shares are held by non-affiliates, and a per share price of \$1.55, based on the closing sale price of our common stock on December 22, 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 December 23, 2010

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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,” “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.

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](http://www.advancedphotonix.com). Information contained in or accessible through our website does not constitute 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.

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.



As disclosed in the Current Report on Form 8-K that we filed with the SEC on December 2, 2010, on November 30, 2010, the company and the Lender entered into a fourth amendment to the Loan Agreement (the "Fourth Amendment") pursuant to which, among other things, the Lender terminated the Amendment Undertaking in connection with the amendment of the Picometrix Notes.

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.

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.

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, 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 and to exposure under the Foreign Corrupt Practices Act.

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

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

In addition, 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.

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

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 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 these 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.

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 reallocated or paid to dealers; and
- ◆ any securities exchange or market on which the securities may be listed.

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 December 22, 2010, there were issued and outstanding 26,041,199 shares of Class A Stock. Additionally, as of that date, an aggregate of 3,992,083 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 December 22, 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 controlling 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 Bylaws, 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 or 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;
- ◆ 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;

- ◆ 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](http://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, November 15, 2010, December 2, 2010 and December 23, 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, we incorporate by reference into this registration statement and prospectus any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement and after the date of this prospectus but prior to the termination of the offering of the securities covered by this prospectus (other than current reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

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.