

ADVANCED PHOTONIX INC

Form 424B3

April 06, 2005

Table of Contents

PROSPECTUS

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-120317

4,457,795 Shares of Class A Common Stock

This prospectus relates to up to 4,457,795 shares of our Class A common stock for resale by the selling stockholders identified in this prospectus or their transferees from time to time. Of the Class A common stock offered hereby, (i) 2,578,251 shares of Class A common stock are issuable upon conversion of \$5.0 million aggregate principal amount of our convertible notes, and (ii) 850,822 shares of Class A common stock are issuable upon exercise of warrants issued in connection with the sale of the initial \$5.0 million aggregate principal amount of our convertible notes. We are not offering or selling any of our Class A common stock pursuant to this prospectus. We will not receive any of the proceeds from the sale of the shares by the selling stockholders. We will not be paying any underwriting discounts or commissions in this offering.

The selling stockholders identified in this prospectus, or their pledgees, donees, permitted transferees or other successors-in-interest, may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

We do not know when or in what amount a selling stockholder may offer shares for sale, including whether a selling stockholder will sell any or all of the shares offered by this prospectus.

Our Class A common stock is traded on the American Stock Exchange under the symbol API. On March 30, 2005, the last sale price of a share of our Class A common stock as reported on the American Stock Exchange was \$2.30.

These securities involve a high degree of risk. See Risk Factors beginning on page 4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 6, 2005

TABLE OF CONTENTS

	Page
<u>Cautionary Statement Regarding Forward Looking Statements</u>	ii
<u>The Company</u>	1
<u>Risk Factors</u>	4
<u>Use of Proceeds</u>	10
<u>Selling Stockholders</u>	10
<u>Plan of Distribution</u>	12
<u>Legal Matters</u>	15
<u>Experts</u>	15
<u>Where You Can Find More Information</u>	15
<u>Indemnification</u>	16

About This Prospectus

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process or continuous offering process. Under this shelf registration process, the selling stockholders may, from time to time, sell the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities that may be offered by the selling stockholders. Each time a selling stockholder sells securities, the selling stockholder is required to provide you with this prospectus and, in certain cases, a prospectus supplement containing specific information about the selling stockholder and the terms of the securities being offered. That 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 both this prospectus and any prospectus supplement together with additional information described under **Where You Can Find More Information**.

As used in this prospectus, the terms **we**, **our**, and **us** may, depending on the context, refer to Advanced Photonix, Inc., including its consolidated subsidiaries.

Table of Contents

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 predict accurately or that we do not fully control that could cause actual results to differ materially from those expressed or implied. This prospectus and the documents incorporated by reference in this prospectus may contain forward looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Such 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. 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 the company, and other risks that could cause actual results to differ materially. The forward looking statements are based on information available to us on the date hereof, and we assume no obligation to update any such forward looking statements.

Table of Contents

The Company

This summary contains basic information about us and the resale by the selling stockholders of our Class A common stock. Because it is only a summary, it does not contain all of the information that you should consider before purchasing our Class A common stock. You should read this entire prospectus, including the information set forth under Risk Factors and the information incorporated by reference in this prospectus.

Our Business

We are engaged in the development and manufacture of custom optoelectronic solutions, serving a variety of global Original Equipment Manufacturer (OEM) markets. While we specialize in silicon-based custom photodiode assemblies, our product families range from custom light detection assemblies, including our patented Avalanche Photodiode technology, to light emitting diode (LED) assemblies. We support the customer from the initial concept and design phase of the product, through to full-scale production and test. We have two manufacturing and wafer fabricating facilities, one in Camarillo, CA and one in Dodgeville, WI.

We design and manufacture silicon-based optoelectronic components and assemblies for a global OEM customer base. The core technology used in the majority of our products is silicon-based photodiodes. Photodiodes sense light of varying wavelengths and intensity and convert that light into electrical signals. We manufacture photodiodes of varying complexity, from basic PIN (positive-intrinsic-negative) photodiodes to the more sophisticated avalanche photodiode (APD). APD is a specialized silicon photodiode capable of detecting very low light levels due to an internal gain phenomenon known as avalanching. All devices are designed by our experienced engineering staff, and fabricated in two state-of-the-art clean rooms. Our basic products and technologies include the following:

PIN photodetectors spectrally enhanced, both single and multi-element

Silicon High Resistivity p-type Detectors

Photodetector hybrids, which include signal amplification circuitry within the detector package

Custom LED assemblies and LED displays

FILTRODE® patented technology integrating optical filters directly on photodiode chips

APDs discrete, with and without thermoelectric coolers, and with integrated modules

These products serve customers in a variety of global markets, typically North America, Asia, Europe and Australia. The target markets served by us are Military & Aerospace, Industrial & Commercial, Medical, Automotive and Communications.

Table of Contents

We were incorporated under the laws of the State of Delaware in June 1988. Our principal executive offices are located at 1240 Avenida Acaso, Camarillo, California 93012, and our telephone number is (805) 987-0146.

The Private Placement

On October 12, 2004, we completed a private placement and issued an aggregate of \$5.0 million principal amount of convertible notes. The convertible notes will mature on September 30, 2007, bear interest at a rate of the Prime Rate plus 1.0% and are convertible into shares of our Class A common stock at the investors' option at an initial conversion price of \$1.9393 per share, subject to adjustment. The convertible notes are secured by a lien on all of our assets. The lien is subordinated to the lien securing our existing bank line of credit. The convertible notes are guaranteed by all of our subsidiaries. \$2.5 million of the purchase price for the convertible notes is required to be held in a cash collateral account subject to release upon satisfaction of certain conditions including, among others:

\$1,250,000 will be released if we enter into a definitive agreement for a permitted acquisition prior to January 31, 2005 (referred to in this prospectus as the "agreement condition"); and

the balance held in the cash collateral account will be released if we consummate the permitted acquisition prior to March 31, 2005 (referred to in this prospectus as the "transaction condition").

If we fail to satisfy the agreement condition discussed above, the holders of the convertible notes have the right to require us to redeem up to 50.0% of the original principal amount of the notes, plus accrued and unpaid interest and late charges, if any. If we fail to satisfy the transaction condition discussed above, the holders of the convertible notes have the right to require us to redeem up to 25.0% of the original principal amount of the notes, plus accrued and unpaid interest and late charges, if any.

We granted the purchasers of the convertible notes a warrant to purchase up to an aggregate of 850,822 additional shares of our Class A common stock at \$2.1156 per share exercisable during the period commencing on March 12, 2005 and expiring on March 12, 2010. We also granted the investors a right (which we refer to in this prospectus as an additional investment right) to purchase up to an aggregate of \$5.0 million principal amount of additional convertible notes with an initial conversion price of \$2.1156 per share and additional warrants to purchase 850,822 shares of Class A common stock at an exercise price of \$2.1156 (exercisable during the period commencing on March 12, 2005 and expiring on March 12, 2010) upon the exercise of these additional investment rights, which expire one year following the effective date of the registration statement of which this prospectus is a part. We agreed with the purchasers of these securities to register these securities for public resale. The shares of Class A common stock issuable to the selling stockholders upon conversion of the additional convertible notes and warrants which are issuable upon exercise of the additional investment rights are not covered by

Table of Contents

this prospectus and are not being registered in the registration statement of which this prospectus is a part. This prospectus has been prepared, and the registration statement of which this prospectus is a part has been filed with the SEC, in order to satisfy our obligations to the purchasers of these securities.

Accordingly, this prospectus covers the resale by the selling stockholders of shares of our Class A common stock issued upon conversion of the selling stockholders' convertible notes and the exercise of their warrants, but not including the shares of our Class A common stock issuable upon conversion of convertible notes and exercise of warrants which may be acquired by them upon exercise of their additional investment rights.

On March 9, 2005, we entered into a letter agreement (referred to in this prospectus as the "amendment") amending certain of the definitive agreements we entered into in connection with the private placement. The amendment amended the Securities Purchase Agreement dated October 11, 2004 by and among us and the investors to (i) extend the agreement condition from January 31, 2005 to March 11, 2005 and (ii) extend the transaction condition from March 31, 2005 to May 1, 2005. The amendment amended the warrants issued and, the additional warrants to be issued, in the private placement to the investors to reduce the exercise price from \$2.1156 per share of our Class A common stock to \$1.78 per share. In addition, the notes issued in connection with the private placement were amended to provide that the interest rate shall not be less than 6.5% at any time.

Investing in our securities involves risks. You should carefully consider the information under "Risk Factors" beginning on page 3 of this prospectus and the other information included or incorporated by reference in this prospectus before investing in our securities. Our Class A common stock is listed on the American Stock Exchange and trades under the symbol "API." On March 30, 2005, the last reported sale price of our Class A common stock on the American Stock Exchange was \$2.30 per share.

Recent Developments

On March 8, 2005, we and our wholly owned subsidiary, Michigan Acquisition Sub, LLC (referred to in this prospectus as "Newco"), a Delaware limited liability company, entered into an Agreement and Plan of Merger (referred to in this prospectus as the "merger agreement") with Picotronics, Inc. (doing business as and referred to in this prospectus as "Picometrics"), a Michigan corporation, Robin Risser and Steven Williamson, the stockholders of Picometrics, whereby Picometrics will merge with and into Newco, with Newco being the surviving entity. The merger consideration to be paid to the stockholders of Picometrics at the closing of the transaction will consist of \$3,500,000 in cash, four-year promissory notes in the aggregate principal amount of \$2,900,500 (referred to in this prospectus as the "API Notes") and 2,575,000 shares of our Class A common stock.

Table of Contents

The API Notes will be payable in four annual installments with the first being a payment of \$500,000, the second being a payment of \$550,000, the third being a payment of \$900,000 and the fourth being a payment of \$950,500. The API Notes will bear an interest rate of prime plus 1.0% and will be secured by all of the intellectual property of Picometrix. We will have the option of prepaying the API Notes without penalty.

The transaction is anticipated to close in April, subject to customary closing conditions, including American Stock Exchange listing of our shares of Class A common stock to be issued in connection with the transaction. Picometrix, a privately held company located in Ann Arbor, MI, is a developer and manufacturer of ultra high-speed photoreceivers and instrumentation for the telecommunication, data communication, and test and measurement markets.

Upon the signing of the merger agreement, we provided a loan in the amount of approximately \$4,200,000 to Picometrix, the proceeds of which were used to prepay existing long-term indebtedness of Picometrix to a third party. The loan made to Picometrix is secured by all of the intellectual property of Picometrix. The loan to Picometrix will be contributed to the capital of Newco at the closing of the transaction. In the event the transaction does not close, the loan will mature 12 months after issuance and will bear interest at the annual rate of prime plus 1.0%.

Risk Factors

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

Risks Relating to Our Business

We are dependent upon several suppliers for a significant portion of raw materials used in the manufacturing of our products.

The principal raw materials we use in the manufacture of our semiconductor components and sensor assemblies are silicon wafers, chemicals and gases used in processing wafers, gold wire, lead frames, 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. From time to time, particularly during periods of increased industry-wide demand, silicon wafers and other materials have been in short supply. Any significant interruption in the supply of these raw materials could have a material adverse effect on us

Table of Contents

Customer acceptance of our products is dependent on our ability to meet changing requirements.

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

We are subject to market risk through our sales to overseas markets.

A growing amount of our sales are being derived from overseas markets. These international sales are primarily focused in Europe and the Middle-East. These operations are subject to risks that are inherent in operating in foreign countries, 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;

in some countries, there is a risk that the government may expropriate assets;

some countries impose burdensome tariffs and quotas;

political changes and economic crises may lead to changes in the business environment in which we operate;

international conflict, including terrorist acts, could significantly impact our financial condition and results of operations; and

economic downturns, political instability and war or civil disturbances may disrupt distribution logistics or limit sales in individual markets.

In addition, we utilize third-party Distributors to act as our representative for the geographic region that they have been assigned. These Distributors are responsible for maintaining customer account management and in some cases maintaining an inventory of products for those customers within their geographic region. Our success is dependent on these Distributors finding new customers and receiving new orders from existing customers.

Table of Contents

Our future performance is dependent upon finding new customers and retaining our existing customers.

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 market segments, quality and/or reliability of our products is 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, or higher value assembly, making servicing of our products not feasible. Any failure of the quality and/or reliability of our products could have an adverse affect on us and our ability to maintain or attract customers.

Customer orders are subject to cancellation or modification at any time.

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. The current backlog contains only those orders for which we have received a confirmed purchase order and also includes contracts which have scheduled shipping dates beyond the upcoming fiscal year. As such, the current backlog represents only a portion of expected annual revenues for fiscal year 2005. At October 31, 2004, we had approximately \$9.0 million in backlog.

The markets for many of our products are characterized by changing technology.

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 are dependent on key in-house manufacturing equipment or processes to deliver a custom product (solution) with the highest performance and short time to market.

We depend on key in-house manufacturing equipment and assembly processes. We believe that these key manufacturing and assembly process give us the flexibility and responsiveness to meet our customer delivery schedule and performance specification with a

Table of Contents

custom product. This value proposition is an important component of our offering to our customers. A loss of these capabilities could have an adverse effect on our existing operations and new business growth.

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

In fiscal 2004, approximately 37.0 % of our sales was related to products purchased by military contractors. Our business depends upon continued federal government expenditures on defense, intelligence, aerospace and other programs that we support. In fiscal 2004, our sales to military contractors enjoyed a strong steady growth rate. In addition, foreign military sales are affected by U.S. Government regulations, regulations by the purchasing foreign government and political uncertainties in the U.S. and abroad. There can be no assurance that the U.S. defense and military budget will continue to grow or that sales of defense related items to foreign governments will continue at present levels. In addition, the terms of defense contracts with the U.S. Government generally permit the Government to terminate such contracts, with or without cause, at any time. Any unexpected termination of a significant U.S. Government contract with a military contractor that we sell our products to could have a material adverse effect on us.

Our industry is highly competitive and fragmented.

We compete with a range of companies for the custom optoelectronic and silicon photodetector requirements of customers in our target markets. We believe that our principal competitors for sales of custom devices are small to medium size companies. Because we specialize in custom 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 manufacturers of standard off the shelf optoelectronic components or silicon photodetectors. We cannot assure you that we will be able to compete successfully in our markets against these or any future competitors.

Our industry is sensitive to changing economic conditions.

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 or Gross National Product growth has a direct impact on our customers and the demand for our products. We cannot assure you that our business will not be adversely affected as a result of an industry or general economic downturn.

Table of Contents

We are subject to environmental regulations.

The photonics industry, as well as the semiconductor industry in general, is subject to governmental regulations for the protection of the environment, including those relating to air and water quality, solid and hazardous waste handling, and the promotion of occupational safety. Various federal, state and local laws and regulations require that we maintain certain environmental permits. We believe 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.

We utilize proprietary design rules and processing steps in the development and fabrication of our PIN photodiodes and avalanche photodiodes. In addition, we own 11 patents utilized in our products. 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 owned 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 effect on our operating results. Furthermore, there can be no assurance that our APD 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 APD technology, and a review of the published materials, we believe that our competitors hold no patents, licenses or other rights to the APD 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.

We face strong competition for skilled workers.

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.

Table of Contents

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.

We continually explore opportunities to acquire related businesses, some of which could be material to us. Our ability to continue to grow may depend upon identifying and successfully acquiring attractive companies, effectively integrating these companies, achieving cost efficiencies and managing these businesses as part of our company.

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

Risks Relating to Our Class A Common Stock

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

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

quarterly variations in our operating results;

operating results that vary from the expectations of securities analysts and investors;

changes in expectations as to our future financial performance, including financial estimates by securities analysts and investors;

announcements of technological innovations or new products by us or our competitors;

announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;

changes in the status of our intellectual property rights;

announcements by third parties of significant claims or proceedings against us;

additions or departures of key personnel;

future sales of our ordinary shares; and

stock market price and volume fluctuations.

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

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 effect on our business and results of operations.

Future sales of our Class A common stock in the public market could lower our stock price, and conversion of our warrants and any additional capital raised by us may dilute your ownership in us.

We may sell additional shares of Class A common stock in subsequent offerings. In addition, holders of warrants to purchase our Class A common stock will, most likely, exercise their warrants to purchase shares of our Class A common stock after this registration statement is declared effective. We cannot predict the size of future issuances of our Class A common stock or the effect, if any, that future issuances and sales of shares of our Class A common stock will have on the market price of our Class A common stock. Sales of substantial amounts of our Class A common stock, including shares issued in connection with the exercise of the warrants, or the perception that such sales could occur, may adversely affect prevailing market prices for our Class A common stock.

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

Sales of substantial amounts of our Class A common stock in the public market could decrease the prevailing market price of our Class A common stock, which would have an adverse effect on our ability to raise equity capital in the future.

We do not intend to pay dividends.

We have never declared or paid any cash dividends on our Class A common stock. We currently intend to retain future earnings, if any, to finance operations and expand our business and, therefore, do not expect to pay any dividends in the foreseeable future.

Table of Contents

Use of Proceeds

We will not receive any proceeds from the sale of the shares offered pursuant to this prospectus. All of the proceeds will be payable solely to the selling stockholders. We will, however, receive the proceeds from the exercise of the additional investment rights and the warrants issued to the selling stockholders if and when they are exercised. We anticipate that the net proceeds from the exercise of the additional investment rights and the warrants would be used for future acquisitions, working capital and general corporate purposes.

The selling stockholders will pay any expenses customarily borne by selling stockholders (including underwriting discounts, commissions and fees and expenses of counsel to the extent not required to be paid by us). We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, but not limited to, all registration and filing fees, listing fees and expenses of our counsel and our accountants.

Selling Stockholders

The shares of Class A common stock being offered by the selling stockholders are issuable upon conversion of the convertible notes (excluding convertible notes issuable upon exercise of additional investment rights which were issued pursuant to a Securities Purchase Agreement dated as of October 11, 2004) and upon exercise of the warrants (excluding warrants issuable upon exercise of additional investment rights which were issued pursuant to the Securities Purchase Agreement). For additional information regarding the issuance of those convertible notes, warrants and additional investment rights, see Prospectus Summary The Private Placement above. We are registering the shares of Class A common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the convertible notes, the warrants and the additional investment rights issued pursuant to the Securities Purchase Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The term selling stockholders includes the stockholders listed below and their respective transferees, assignees, pledgees, donees or other successors. The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of Class A common stock by each of the selling stockholders. The second column lists the number of shares of Class A common stock beneficially owned by each selling stockholder, based on its ownership of the convertible notes and warrants, as of March 31, 2005, assuming conversion of all convertible notes (excluding convertible notes issuable upon exercise of all of the additional investment rights held by the selling stockholders) and exercise of the warrants (excluding warrants issuable upon exercise of all of the additional investment rights held by the selling stockholders) held by the selling stockholders on that date, without regard to any limitations on conversions or exercise.

The third column lists the shares of Class A common stock being offered by this prospectus by the selling stockholders.

Table of Contents

In accordance with the terms of registration rights agreements with the selling stockholders, this prospectus generally covers the resale of at least 130% of the sum of (i) the number of shares of Class A common stock issuable upon conversion of the convertible notes (excluding convertible notes issuable upon exercise of all of the additional investment rights which were issued pursuant to a Securities Purchase Agreement) as of the trading day immediately preceding the date the registration statement is initially filed with the SEC and (ii) the number of shares of Class A common stock issuable upon exercise of the related warrants (excluding warrants issuable upon exercise of all of the additional investment rights which were issued pursuant to a Securities Purchase Agreement) as of the trading day immediately preceding the date the registration statement is initially filed with the SEC. Because the conversion price of the convertible notes and the exercise price of the warrants may be adjusted, the number of shares that will actually be issued may be more or less than the number of shares being offered by this prospectus. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

Under the terms of the convertible notes and the warrants, a selling stockholder may not convert the convertible notes or exercise the warrants to the extent such conversion or exercise would cause such selling stockholder, together with its affiliates, to beneficially own a number of shares of Class A common stock which would exceed 4.99% of our then outstanding shares of Class A common stock following such conversion or exercise, excluding for purposes of such determination shares of Class A common stock issuable upon conversion of the convertible notes which have not been converted and upon exercise of the warrants and additional investment rights which have not been exercised. The number of shares in the second column does not reflect this limitation. The selling stockholders may sell all, some or none of their shares in this offering. See Plan of Distribution.

Table of Contents

Name of Selling Stockholder	Number of Shares Beneficially Owned Prior to the Offering	Maximum Number of Shares to be Sold Pursuant to this Prospectus(5)	Number of Shares to be Beneficially Owned After the Offering
Smithfield Fiduciary LLC (1)	2,571,805	3,343,347	0
Iroquois Capital LP (2)	171,454	222,890	0
Bluegrass Growth Fund, LP (3)	342,907	445,779	0
Bluegrass Growth Fund, Ltd (4)	342,907	445,779	0

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- ¹ Highbridge Capital Management, LLC (Highbridge), is the trading manager of Smithfield Fiduciary LLC (Smithfield) and consequently has voting control and investment discretion over the shares of Class A common stock held by Smithfield. Glenn Dubin and Henry Swieca control Highbridge. Each of Highbridge and Messrs. Dubin and Swieca disclaims beneficial ownership of the shares held by Smithfield.
- ² Joshua Silverman has voting control and investment discretion over securities held by Iroquois Capital LP. Mr. Silverman disclaims beneficial ownership of the Class A common stock held by Iroquois Capital LP.
- ³ Brian Shatz has voting control and investment discretion over securities held by Bluegrass Growth Fund, LP. Mr. Shatz disclaims beneficial ownership of the Class A common stock held by Bluegrass Growth Fund, LP.
- ⁴ Brian Shatz has voting control and investment discretion over securities held by Bluegrass Growth Fund, Ltd. Mr. Shatz disclaims beneficial ownership of the Class A common stock held by Bluegrass Growth Fund, Ltd.
- ⁵ The number of shares of Class A common stock to be sold by the selling stockholders is based on (i) 100% of the number of shares of Class A common stock issuable to the selling stockholders upon conversion of the convertible notes and exercise of the warrants, and (ii) 30% of the number of shares of Class A common stock issuable to the selling stockholders representing a good faith estimate of the maximum number of additional shares that may become issuable pursuant to a contractual agreement with the selling stockholders.

Plan of Distribution

We are registering the shares of Class A common stock issuable upon conversion of the convertible notes (excluding convertible notes issuable upon exercise of the additional investment rights) and upon exercise of the warrants (excluding warrants issuable upon exercise of the additional investment rights) to permit the resale of these shares of Class A common stock by the holders of the convertible notes and warrants from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of Class A common stock. We will bear all fees and expenses incident to our obligation to register the shares of Class A common stock. We will not be paying any underwriting discounts or commissions in this offering. We have also agreed with the selling

Table of Contents

stockholders to reimburse them for fees and disbursement in an amount not to exceed \$15,000 incurred in connection with this registration statement

The selling stockholders may sell all or a portion of the shares of Class A common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Class A common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of Class A common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, such as:

sales on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

sales in the over-the-counter market;

transactions otherwise than on these exchanges or systems or in the over-the-counter market;

the writing of options, whether such options are listed on an options exchange or otherwise;

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short sales;

sales pursuant to Rule 144;

sales through broker-dealers who may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

Table of Contents

If the selling stockholders effect such transactions by selling shares of Class A common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of Class A common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of Class A common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of Class A common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of Class A common stock short and deliver shares of Class A common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of Class A common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the convertible notes, warrants, additional investment rights or shares of Class A common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Class A common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of Class A common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer participating in the distribution of the shares of Class A common stock may be deemed to be underwriters within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of Class A common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of Class A common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling shareholders and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers.

Under the securities laws of some states, the shares of Class A common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Class A common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of Class A common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of Class A common stock by the selling stockholders and any other person participating in this offering. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of Class A common stock to engage in market-making activities with respect to the shares of Class A common stock. All of the foregoing may affect the marketability of the shares of Class A common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Class A common stock.

We will pay all expenses of the registration of the shares of our Class A common stock pursuant to the registration rights agreement, estimated to be \$15,000 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or blue sky laws. However, the selling stockholders will pay all underwriting discounts and selling commissions, if any. We have agreed to indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreements, or the selling shareholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related registration rights agreements or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of Class A common stock will be freely tradable in the hands of persons other than our affiliates.

Table of Contents

Legal Matters

Dornbush Schaeffer Strongin & Weinstein, LLP, New York, New York, will pass on certain legal matters in connection with the offering, including the validity of the issuance of the shares being offered hereby.

Experts

The consolidated financial statements incorporated in this prospectus by reference from our Annual Report on Form 10-K for the year ended March 28, 2004 have been audited by Farber & Hass LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

Where You Can Find More Information

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, 450 Fifth Street, N.W., Room 204, 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 Section. Additionally, these documents are available to the public from the SEC's web site at <http://www.sec.gov>.

The SEC allows us to incorporate by reference into 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 directly in 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. We incorporate by reference the documents listed below and any future filings made with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act until this offering is completed:

Annual Report on Form 10-KSB for the fiscal year ended March 28, 2004;

Current Report on Form 8-K, filed on August 11, 2004;

Quarterly Report on Form 10-QSB for the quarter ended June 27, 2004;

Current Report on Form 8-K, filed on October 12, 2004;

Current Report on Form 8-K, filed on November 9, 2004;

Table of Contents

Current Report on Form 8-K, filed on November 10, 2004;

Quarterly Report on Form 10-QSB for the quarter ended September 26, 2004;

Current Report on Form 8-K filed on December 23, 2004;

Current Report on Form 8-K filed on February 9, 2005;

Current Report on Form 8-K filed on February 10, 2005;

Current Report on Form 8-K filed on February 11, 2005;

Quarterly Report on Form 10-QSB for the quarter ended December 26, 2004;

Current Report on Form 8-K filed on March 14, 2005;

Current Report on Form 8-K/A filed on March 16, 2005;

Quarterly Report on Form 10-QSB/A for the quarter ended December 26, 2004; and

The description of our Class A common 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.

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.
1240 Avenida Acaso
Camarillo, California 93012
Attention: Secretary
(805) 987-0146

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

Indemnification

Our Certificate of Incorporation allows us to indemnify our officers and directors to the maximum extent allowed under Delaware law. This includes indemnification for liabilities which could arise under the Securities Act. Insofar as we are permitted to indemnify our officers and directors, 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.

Table of Contents

4,457,795 Shares of

Class A Common Stock

PROSPECTUS

April 6, 2005

Prospective investors may rely only on the information contained in this prospectus. Neither Advanced Photonix, Inc. nor any selling stockholder has authorized anyone to provide prospective investors with information different from that contained or incorporated by reference in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy the shares of our Class A common stock being offered hereby in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is correct only as of the date of this prospectus, regardless of the times of the delivery of this prospectus or any sale of the shares of our Class A common stock.