

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

APPLIED OPTOELECTRONICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation or Organization)

76-0533927
(I.R.S. Employer
Identification Number)

**13139 Jess Pirtle Blvd.
Sugar Land, TX 77478
(281) 295-1800**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

David C. Kuo
Senior Legal Officer and Corporate Secretary
13139 Jess Pirtle Blvd.
Sugar Land, TX 77478
(281) 295-1800

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copies to:
Frank Wu
Haynes and Boone, LLP
1221 McKinney Street, Suite 4000
Houston, TX 77010
(713) 547-2572
(713) 236-5659 (facsimile)

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

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

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

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

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

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

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

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

| | | | |
|-------------------------|--------------------------|---------------------------|-------------------------------------|
| Large accelerated filer | <input type="checkbox"/> | Accelerated filer | <input checked="" type="checkbox"/> |
| Non-accelerated filer | <input type="checkbox"/> | Smaller reporting company | <input checked="" type="checkbox"/> |
| | | Emerging growth company | <input type="checkbox"/> |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act.

Prospectus

**APPLIED OPTOELECTRONICS, INC.****Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

We may offer and sell any combination of the securities listed above from time to time, in one or more classes or series and in amounts, at prices and on terms that we will determine at the time of the offering.

In addition, selling securityholders may offer and sell, from time to time, these securities on terms described in a prospectus supplement. We will not receive any proceeds from the sale of our securities by the selling securityholders.

This prospectus provides you with a general description of the securities we may offer. Each time we or selling securityholders sell securities, we or such selling securityholders will provide a supplement to this prospectus that contains specific information about the offering and, if applicable, the selling securityholders, as well as the amounts, prices and terms of the securities. The prospectus supplement may also add, update or change information contained in this prospectus. You should carefully read this prospectus, all prospectus supplements and all other documents incorporated by reference in this prospectus before you invest in our securities.

We or selling securityholders may offer and sell these securities in the same offering or in separate offerings through underwriters, dealers or agents or directly to purchasers, on a continuous or delayed basis. The prospectus supplement for each offering will describe in detail the plan of distribution for that offering and will set forth the names of any underwriters, dealers or agents involved in the offering and any applicable fees, commissions or discount arrangements. See “Plan of Distribution.”

We encourage you to carefully review and consider this prospectus and any prospectus supplement before investing in our securities. We also encourage you to read the documents to which we have referred you in the “Where To Learn More About Us” section of this prospectus for information on us and for our financial statements.

THIS PROSPECTUS MAY NOT BE USED TO SELL SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT DESCRIBING THE METHOD AND TERMS OF THE OFFERING OF SUCH SECURITIES.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. RISKS ASSOCIATED WITH AN INVESTMENT IN OUR SECURITIES WILL BE DESCRIBED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND OUR PERIODIC AND OTHER REPORTS WE FILE WITH THE SECURITIES AND EXCHANGE COMMISSION, AS DESCRIBED IN “RISK FACTORS” ON PAGE 2. YOU SHOULD CAREFULLY CONSIDER THOSE RISK FACTORS BEFORE INVESTING.

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 THE DISCLOSURES IN THE PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is December 18, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of an “automatic shelf” registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act, utilizing a “shelf” registration process. Under the shelf registration process, we or the selling securityholders may offer and sell either individually or in combination with other securities any of the securities described in this prospectus, from time to time, in one or more offerings, at prices and on terms to be determined at or prior to the applicable offering.

This prospectus only provides you with a general description of the securities we may offer. Each time we sell securities described in the prospectus, we will provide a supplement to this prospectus that will contain specific information about the terms of that offering.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

The prospectus supplement may also add, update or change information contained in this prospectus and, accordingly to the extent inconsistent, information in this prospectus is superseded by the information in the prospectus supplement. You should read carefully both this prospectus and any accompanying prospectus supplement or other offering materials, together with the additional information described under “Where To Learn More About Us” beginning on page 18 of this prospectus and “Incorporation of Certain Documents By Reference,” beginning on page 19 of this prospectus.

You should rely only on the information contained in or incorporated by reference into this prospectus and any prospectus supplement or issuer free writing prospectus relating to a particular offering. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you must not rely on it as having been authorized by us. Neither this prospectus nor any prospectus supplement nor any related issuer free writing prospectus shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation.

We or the selling securityholders may sell the securities directly to you or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we or the selling securityholders do offer securities through underwriters, dealers or agents, we will include in any applicable prospectus supplement:

- the names of those underwriters, dealers or agents;
- applicable fees, discounts, and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

This prospectus and any accompanying prospectus supplement or other offering materials do not contain all of the information included in the registration statement as permitted by the rules and regulations of the SEC. For further information, we refer you to the registration statement on Form S-3, including its exhibits. We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and, therefore, file reports and other information with the SEC. Statements contained in this prospectus and any accompanying prospectus supplement or other offering materials about the provisions or contents of any agreement or other document are only summaries. If the SEC rules require that any agreement or document be filed as an exhibit to the registration statement, then you should refer to that agreement or document for its complete contents.

You should not assume that the information in this prospectus, any accompanying prospectus supplement or any other offering materials is accurate as of any date other than the date on the front of each document, regardless of the time of delivery of this prospectus, any accompanying prospectus supplement or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before deciding whether to invest in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under Item 1A, “Risk Factors,” in our [Annual Report on Form 10-K, for the fiscal year ended December 31, 2023, filed with the SEC on February 23, 2023](#), and our Form 10-Qs, as amended, for the fiscal periods ended March 31, 2024, June 30, 2024, and September 30, 2024, filed with the SEC on [May 6, 2024](#), [August 6, 2024](#), and [November 7, 2024](#), respectively, all of which are incorporated herein by reference, as updated or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus and any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below entitled “Cautionary Note Regarding Forward-Looking Statements.”

THE COMPANY

The Company

As used in this prospectus, the terms “we,” “us,” “our,” and “Company” refer to Applied Optoelectronics, Inc. We are a leading, vertically integrated provider of fiber-optic networking products. We target four networking end-markets: internet data centers, cable television (“CATV”), telecommunications (“telecom”), and fiber-to-the home (“FTTH”). We design and manufacture a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment.

In designing products for our customers, we typically begin with the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products to meet our customers’ needs and specifications, and such products differ from each other by their end market, intended use and level of integration. We are primarily focused on the higher-performance segments within the internet data center, CATV, telecom and FTTH markets which increasingly demand faster connectivity and innovation.

The four end markets we target are all driven by significant bandwidth demand fueled by the growth of network-connected devices, video traffic, cloud computing and online social networking. Within the internet data center market, we benefit from the increasing use of higher-capacity optical networking technology as a replacement for older, lower-speed optical interconnects, particularly as speeds reach 800 Gbps and above, as well as the movement to open internet data center architectures and the increasing use of in-house equipment design among leading internet companies. Within the CATV market, we benefit from a number of ongoing trends including the move to higher bandwidth networks among CATV service providers, especially the desire by MSOs to increase the return-path bandwidth available to offer to their customers. In the FTTH market, we benefit from continuing PON deployments and system updates among telecom service providers. In the telecom market, we benefit from deployment of new high-speed fiber-optic networks by telecom network operators, including 5G networks.

Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and greater control over product quality and manufacturing costs. We design, manufacture and integrate our own analog and digital lasers using a proprietary Molecular Beam Epitaxy, or MBE, and Metal Organic Chemical Vapor Deposition (MOCVD) alternative processes for the fabrication of lasers. We believe the use of both processes, and our knowledge

of how to combine these processes with others to fabricate lasers is unique in our industry. We manufacture the majority of the laser chips and optical components that are used in our products. The lasers we manufacture are tested extensively to enable reliable operation over time and our devices are often highly tolerant of changes in temperature and humidity, making them well-suited to the CATV, FTTH and 5G telecom markets where networking equipment is often installed outdoors. All of our laser chips are manufactured in our facility in Sugar Land, Texas. We believe that our domestic production capacity for these devices gives us a competitive advantage over many of our competitors, as we believe that many of our customers prefer to source key components from suppliers who have domestic manufacturing capacity.

We have three manufacturing sites: Sugar Land, Texas, Ningbo, China and Taipei, Taiwan. Our research and development functions are generally partnered with our manufacturing locations, and we have an additional research and development facility in Duluth, Georgia. In our Sugar Land facility, we manufacture laser chips (utilizing our MBE and MOCVD processes), subassemblies and components. The subassemblies are used in the manufacture of components by our other manufacturing facilities or sold to third parties as modules. We manufacture our laser chips only within our Sugar Land facility, where our laser design team is located. In our Taiwan location, we manufacture optical components, such as our butterfly lasers, which incorporate laser chips, subassemblies and components manufactured within our Sugar Land facility. Additionally, in our Taiwan location, we manufacture transceivers for the internet data center, telecom, FTTH and other markets. In our China facility, we take advantage of lower labor costs and manufacture certain more labor intensive components and optical equipment systems, such as optical subassemblies and transceivers for the CATV transmitters (at the headend), CATV outdoor equipment (at the node) and internet data center market. Each manufacturing facility conducts testing on the components, modules or subsystems it manufactures and each facility is certified to ISO 9001:2015. Our facilities in Ningbo, China, Taipei, Taiwan, and Sugar Land, Texas are all certified to ISO 14001:2015.

Our business depends on winning competitive bid selection processes to develop components, systems and equipment for use in our customers' products. These selection processes are typically lengthy, and as a result our sales cycles will vary based on the level of customization required, market served, whether the design win is with an existing or new customer and whether our solution being designed in our customers' product is our first generation or subsequent generation product. We do not have any long-term purchase commitments (in excess of one year) with any of our customers, most of whom purchase our products on a purchase order basis. However, once one of our solutions is incorporated into a customer's design, we believe that our solution is likely to continue to be purchased for that design throughout that product's life cycle because of the time and expense associated with redesigning the product or substituting an alternative solution.

Corporate Information

We were incorporated in the State of Texas in 1997. In March 2013, Applied Optoelectronics, Inc., a Texas corporation, converted into a Delaware corporation. Prime World International Holdings, Ltd. ("Prime World") is a wholly-owned subsidiary of the Company incorporated in the British Virgin Islands on January 13, 2006. Prime World is the parent company of Global Technology, Inc. ("Global"). Global was established in June 2002 in the People's Republic of China ("PRC") and was acquired by Prime World on March 30, 2006. Prime World also operates a division in Taiwan, which is qualified to do business in Taiwan and primarily manufactures transceivers and performs research and development activities.

Our principal executive offices are located at 13139 Jess Pirtle Blvd., Sugar Land, TX 77478, and our telephone number is (281) 295-1800. Our website address is www.ao-inc.com. Information contained on our website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and each prospectus supplement contains, and the documents incorporated by reference herein include "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances

or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about reduction in the size or quantity of customer orders; change in demand for the Company's products due to industry conditions; our ability to maintain sufficient liquidity; changes in manufacturing operations; volatility in manufacturing costs; delays in shipments of products; disruptions in the supply chain; change in the rate of design wins or the rate of customer acceptance of new products; the Company's reliance on a small number of customers for a substantial portion of its revenues; pricing pressure; a decline in demand for our customers' products or their rate of deployment of their products; general conditions in the internet data center, cable television or CATV, telecommunications or telecom and fiber-to-the-home or FTTH; changes in the world economy (particularly in the United States and China); the negative effects of seasonality; expectations regarding the acquisition or divestiture of assets and business; realization of deferred tax assets; and other risks and uncertainties described more fully under the heading "Risk Factors" above and those discussed in the Company's documents included in "Incorporation of Certain Information by Reference" below.

In some cases, you can identify forward-looking statement by terms such as "believe," "may," "estimate," "continue," "anticipate," "intend," "should," "could," "would," "target," "seek," "aim," "believe," "predicts," "think," "objectives," "optimistic," "new," "goal," "strategy," "potential," "is likely," "will," "expect," "plan" "project," "permit" and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events, are based on assumptions and are subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading "Risk Factors" in our SEC filings, and under the caption "Risk Factors" in this prospectus or any prospectus supplement. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement. You should read this prospectus, the registration statement of which this prospectus is a part, any prospectus supplement and the exhibits and documents incorporated by reference herein and therein completely and with the understanding that our actual future results may be materially different from those described in forward-looking statements. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

You should assume that information contained in or incorporated by reference into this prospectus is accurate only as of the date on the front cover of this prospectus or the date of the document incorporated by reference, as applicable. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the securities as set forth in the applicable prospectus supplement. We will not receive any proceeds from the sale of our securities by the selling securityholders.

DESCRIPTION OF SECURITIES TO BE OFFERED

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we so indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include information in the prospectus supplement, where applicable, about material U.S. federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

We may sell from time to time, in one or more primary offerings, our common stock, preferred stock, warrants and units, or any combination of the foregoing.

In this prospectus, we refer to the common stock, preferred stock, warrants, units or any combination of the foregoing securities to be sold by us in a primary offering collectively as "securities."

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

The following is a summary of the material provisions of the securities as set forth in our certificate of incorporation, as amended to date, and bylaws, as amended to date. For additional detail about our capital stock, please refer to our amended and restated certificate of incorporation and amended and restated bylaws, as well as applicable Delaware law.

Description of Capital Stock

The following description of our capital stock summarizes the material terms and provisions of the capital stock that we may offer under this prospectus, is not complete and is qualified in its entirety by reference to our certificate of incorporation and bylaws, as may be amended from time to time, which have been filed with the SEC as exhibits to the registration statement and each of which is incorporated by reference in this prospectus. In addition, you should be aware that the summary below does not give full effect to the terms of the provisions of statutory or common law.

General

While the terms we have summarized below will apply generally to any future common stock or preferred stock that we may offer, we will describe the specific terms of any series of preferred stock in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any preferred stock we offer under that prospectus supplement may differ from the terms we describe below.

Our authorized capital stock consists of 85,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of undesignated preferred stock, par value \$0.001 per share. As of December 17, 2024, there were 46,868,487 shares of common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Holders of our common stock are entitled to one vote for each share of common stock held of record for the election of directors and on all matters submitted to a vote of stockholders. Holders of our common stock are also entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any preferred stock then outstanding. Upon our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in our net assets legally available after the payment of all our debts and other liabilities, subject to the preferential rights of any preferred stock then outstanding. Holders of our common stock have no subscription, preemptive, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. Except with respect to the election of directors (which is determined by our stockholders by a plurality of the votes cast by the stockholders entitled to vote on the election) and as described below in “Provisions of our Certificate of Incorporation and Bylaws and Delaware Anti-Takeover Law,” a majority vote of common stockholders is generally required to take action under our amended and restated certificate of incorporation and amended and restated bylaws.

Listing

Our common stock is listed on the NASDAQ Global Market under the symbol “AAOI.” On December 17, 2024 the closing price of our common stock, as reported on the NASDAQ Global Market, was \$32.11 per share. As of the close of business on December 17, 2024, there were approximately 48 stockholders of record of our common stock.

Transfer Agent and Registrar

Continental Stock Transfer & Trust Company acts as the transfer agent and registrar for our common stock. The transfer agent and registrar’s address is 1 State Street, 30th Floor, New York, New York 10004.

Preferred Stock

Our board of directors is authorized, without action by the stockholders, to designate and issue up to an aggregate of 5,000,000 shares of preferred stock in one or more series. The board of directors can fix the

rights, preferences and privileges of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible future financings and acquisitions and other corporate purposes could, under certain circumstances, have the effect of delaying, deferring or preventing a change in control of our company and might harm the market price of our common stock.

Our board of directors will make any determination to issue such shares based on its judgment as to our company's best interests and the best interests of our stockholders.

We will incorporate by reference as an exhibit to the registration statement, which includes this prospectus, the form of any certificate of designations that describes the terms of the series of preferred stock we are offering. This description and the applicable prospectus supplement will include:

- the title and stated value;
- the number of shares authorized;
- the liquidation preference per share;
- the purchase price;
- the dividend rate, period and payment date, and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

When we issue shares of preferred stock under this prospectus, the shares will fully be paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

Registration Rights

As of the date hereof, no holder of our common stock is eligible to exercise any contractual rights to require us to register any shares of such holder under the Securities Act.

Provisions of Our Certificate of Incorporation and Bylaws and Delaware Anti-Takeover Law

Our amended and restated certificate of incorporation and amended and restated bylaws include a number of provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board composition and filling vacancies

In accordance with our amended and restated certificate of incorporation, our board of directors is divided into three classes serving staggered three year terms, with one class being elected each year. Our amended and restated certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 66 $\frac{2}{3}$ % or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board of directors, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

No written consent of stockholders

Our amended and restated certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

Meetings of stockholders

Our amended and restated bylaws provide that only a majority of the members of our board of directors then in office, the Chairman of the board of directors or the Chief Executive Officer may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our amended and restated bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance notice requirements

Our amended and restated bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary before the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days or more than 120 days before the first anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in our amended and restated bylaws.

Amendment to bylaws and certificate of incorporation

As required by the Delaware General Corporation Law (the “DGCL”), any amendment of our amended and restated certificate of incorporation must first be approved by a majority of our board of directors and, if required by law or our amended and restated certificate of incorporation, thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment, and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, directors, limitation of liability and the amendment of our amended and restated bylaws and amended and restated certificate of incorporation must be approved by not less than 66 $\frac{2}{3}$ % of the outstanding shares entitled to vote on the amendment, and not less than 66 $\frac{2}{3}$ % of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority vote of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding shares entitled to vote on the amendment, or, if the board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Blank check preferred stock

Our amended and restated certificate of incorporation authorizes 5,000,000 shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our amended and restated certificate of incorporation grants our board of directors' broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Choice of Forum

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or our amended and restated certificate of incorporation or by-laws, or (iv) any action asserting a claim against the Company governed by the internal affairs doctrine. This exclusive forum provision will not apply to claims under the Securities Exchange Act of 1934 but will apply to other state and federal law claims including actions arising under the Securities Act of 1933 (although our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder). Section 22 of the Securities Act of 1933, however, creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act of 1933 or the rules and regulations thereunder. Accordingly, there is uncertainty as to whether a court would enforce such a forum selection provision as written in connection with claims arising under the Securities Act of 1933. This forum selection provision in our amended and restated certificate of incorporation may limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. It is also possible that a court could rule that such a provision is inapplicable or unenforceable.

Anti-takeover effects of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the DGCL, or Section 203. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a 3-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within the three years before the determination of interested stockholder status, 15% or more of the corporation's voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which 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, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or

- at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

The restrictions in Section 203 do not apply to corporations that have elected, in the manner provided in Section 203, not to be subject to Section 203 of the DGCL or, with certain exceptions, which do not have a class of voting stock that is listed on a national securities exchange or authorized for quotation on the NASDAQ Global Market or held of record by more than 2,000 stockholders. Our certificate of incorporation and bylaws do not opt out of Section 203.

Section 203 could delay or prohibit mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Description of Debt Securities

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement.

General

The debt securities will be our direct obligations, which may be senior or subordinated, secured or unsecured, and convertible into shares of our common stock, preferred stock or other securities. The debt securities will be issued under an indenture, which may be amended or supplemented from time to time, the form of which will be filed as an exhibit to a post-effective amendment to this registration statement or as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Exchange Act and incorporated herein by reference.

The applicable prospectus supplement and/or other offering materials will describe the material terms of the debt securities offered through that prospectus supplement as well as any general terms described in this section that will not apply to those debt securities. To the extent the applicable prospectus supplement or other offering materials relating to an offering of debt securities are inconsistent with this prospectus, the terms of that prospectus supplement or other offering materials will supersede the information in this prospectus.

The prospectus supplement relating to any series of debt securities that we may offer will contain the specific terms of the debt securities. These terms may include the following:

- the title and principal aggregate amount of the debt securities;
- whether the debt securities will be secured or unsecured;
- whether the debt securities are convertible or exchangeable into other securities;
- the percentage or percentages of principal amount at which such debt securities will be issued;
- the interest rate(s) or the method for determining the interest rate(s);
- the dates on which interest will accrue or the method for determining dates on which interest will accrue and dates on which interest will be payable;
- the person to whom any interest on the debt securities will be payable;
- the places where payments on the debt securities will be payable;
- the maturity date;
- redemption or early repayment provisions;
- authorized denominations;

- form;
- provisions with respect to the retirement of any debt securities;
- provisions relating to the subordination of the rights of debt securities to other stockholders or creditors;
- provisions restricting the declaration of dividends or requiring the maintenance of any asset ratio or the creation or maintenance of reserves;
- provisions restricting the incurrence of additional debt or the issuance of additional securities;
- amount of discount or premium, if any, with which such debt securities will be issued;
- whether such debt securities will be issued in whole or in part in the form of one or more global securities;
- identity of the depositary for global securities;
- whether a temporary security is to be issued with respect to such series and whether any interest payable prior to the issuance of definitive securities of the series will be credited to the account of the persons entitled thereto;
- the terms upon which the beneficial interests in a temporary global security may be exchanged in whole or in part for beneficial interests in a definitive global security or for individual definitive securities;
- any covenants applicable to the particular debt securities being issued;
- defaults and events of default applicable to the particular debt securities being issued;
- the guarantors of each series, if any, and the extent of the guarantees, if any;
- any restriction or condition on the transferability of the debt securities;
- the currency in which the purchase price for, the principal of and any premium and any interest on, such debt securities will be payable;
- the time period within which, the manner in which and the terms and conditions upon which we or the purchaser of the debt securities can select the payment currency;
- the securities exchange(s) on which the securities will be listed, if any;
- whether any underwriter(s) will act as market maker(s) for the securities;
- extent to which a secondary market for the securities is expected to develop;
- our obligations or right to redeem, purchase or repay debt securities under a sinking fund, amortization or analogous provision;
- provisions relating to covenant defeasance and legal defeasance;
- provisions relating to satisfaction and discharge of the indenture;
- provisions relating to the modification of the indenture both with and without consent of holders of debt securities issued under the indenture;
- the law that will govern the indenture and debt securities; and
- additional terms not inconsistent with the provisions of the indenture.

We may sell the debt securities, including original issue discount securities, at par or at a substantial discount below their stated principal amount. Unless we inform you otherwise in a prospectus supplement, we may issue additional debt securities of a particular series without the consent of the holders of the debt securities of such series outstanding at the time of issuance. Any such additional debt securities, together with all other outstanding debt securities of that series, will constitute a single series of securities under the applicable indenture. In addition, we will describe in the applicable prospectus supplement material U.S. federal income tax considerations and any other special considerations for any debt securities we sell which are

denominated in a currency or currency unit other than U.S. dollars. Unless we inform you otherwise in the applicable prospectus supplement, the debt securities will not be listed on any securities exchange.

We expect most debt securities to be issued in fully registered form without coupons and in denominations of \$1,000 and integral multiples thereof. Subject to the limitations provided in the indenture and in the prospectus supplement, debt securities that are issued in registered form may be transferred or exchanged at the corporate office of the trustee or the principal corporate trust office of the trustee, without the payment of any service charge, other than any tax or other governmental charge payable in connection therewith.

Description of Warrants

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

We do not have any warrants outstanding as of the date hereof.

General

We may issue warrants for the purchase of common stock, preferred stock in one or more series and/or debt securities. We may issue warrants independently or together with debt securities, common stock and/or preferred stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We may enter into the warrant agreement with a warrant agent. We may also choose to act as our own warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- anti-dilution provisions of the warrants, if any;
- the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise of the warrants, including any cashless exercise rights;

- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- any securities exchange or quotation system on which the warrants or any securities deliverable upon exercise of the warrants may be listed or quoted;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. eastern time, the close of business, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required exercise price by the methods provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate, and in the applicable prospectus supplement, the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants.

Enforceability of Rights By Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action the holder's right to exercise, and receive the securities purchasable upon exercise of, its warrants in accordance with their terms.

Warrant Agreement Will Not Be Qualified Under Trust Indenture Act of 1939, as amended (the "TIA")

No warrant agreement will be qualified as an indenture, and no warrant agent will be required to qualify as a trustee, under the TIA. Therefore, holders of warrants issued under a warrant agreement will not have the protection of the Trust Indenture Act with respect to their warrants.

Description of Units

We may issue units comprising two or more securities described in this prospectus in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain

provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities,” and “Description of Warrants” will apply to the securities included in each unit to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of your series will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus from time to time in one or more transactions, including, without limitation:

- to or through underwriters, brokers or dealers (acting as agent or principal);
- directly to one or more other purchasers;
- upon the exercise of rights distributed or issued to our security holders;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

- in “at the market” offerings within the meanings of Rule 415(a)(4) under the Securities Act of 1933 or through a market maker or into an existing market, on an exchange, or otherwise;
- directly to purchasers, through a specific bidding or auction process, on a negotiated basis or otherwise;
- through agents on a best-efforts basis;
- through any other method permitted pursuant to applicable law; or
- otherwise through a combination of any of the above methods of sale.

In addition, we may enter into option, share lending or other types of transactions that require us to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus. We may also enter into hedging transactions with respect to our securities. For example, we may:

- enter into transactions involving short sales of the shares of common stock by underwriters, brokers or dealers;
- sell shares of common stock short and deliver the shares to close out short positions;
- enter into option or other types of transactions that require us to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus; or
- loan or pledge the shares of common stock to an underwriter, broker or dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

If we use any underwriter, we will provide a prospectus supplement that will name any underwriter involved in the offer and sale of the securities. The prospectus supplement will also set forth the terms of the offering, including:

- the purchase price of the securities and the proceeds we will receive from the sale of the securities;
- any underwriting discounts and other items constituting underwriters’ compensation;
- any public offering or purchase price and any discounts or commissions allowed or re-allowed or paid to dealers;
- any commissions allowed or paid to agents;
- any securities exchanges on which the securities may be listed;
- the method of distribution of the securities;
- the terms of any agreement, arrangement or understanding entered into with the underwriters, brokers or dealers; and
- any other information we think is important.

If underwriters or dealers are used in the sale, the securities will be acquired by the underwriters or dealers for their own account. The securities may be sold from time to time by us in one or more transactions:

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

Such sales may be effected:

- in transactions on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in transactions in the over-the-counter market;
- in block transactions in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction, or in crosses, in which the same broker acts as an agent on both sides of the trade;
- through the writing of options; or
- through other types of transactions.

General

Any public offering price and any discounts, commissions, concessions or other items constituting compensation allowed or reallocated or paid to underwriters, dealers, agents or remarketing firms may be changed from time to time. Underwriters, dealers, agents and remarketing firms that participate in the distribution of the offered securities may be “underwriters” as defined in the Securities Act. Any discounts or commissions they receive from us and any profits they receive on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify any underwriters, agents or dealers and describe their commissions, fees or discounts in the applicable prospectus supplement or pricing supplement, as the case may be. In compliance with the guidelines of the Financial Industry Regulatory Authority (“FINRA”), the maximum discount or commission to be received by a FINRA member or independent broker-dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

At-the-Market Offerings

If we reach an agreement with an underwriter or agent on a placement, including the number and types of securities to be offered in the placement and any minimum price below which sales may not be made, such underwriter or agent would agree to use its commercially reasonable efforts, consistent with its normal trading and sales practices, to try to sell such securities on such terms. An underwriter or agent could make sales in privately negotiated transactions and/or any other method permitted by law, including sales deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act, sales made directly on the NASDAQ Global Market, the existing trading market for our common stock, or sales made to or through a market maker other than on an exchange. The name of any such underwriter or agent involved in the offer and sale of the securities, the amounts underwritten, and the nature of its obligations to take the securities will be described in the applicable prospectus supplement.

Underwriters and Agents

If underwriters are used in a sale, they will acquire the offered securities for their own account. The underwriters may resell the offered securities in one or more transactions, including negotiated transactions. These sales may be made at a fixed public offering price or prices, which may be changed, at market prices prevailing at the time of the sale, at prices related to such prevailing market price or at negotiated prices. We may offer the securities to the public through an underwriting syndicate or through a single underwriter. The underwriters in any particular offering will be mentioned in the applicable prospectus supplement or pricing supplement, as the case may be.

Unless otherwise specified in connection with any particular offering of securities, the obligations of the underwriters to purchase the offered securities will be subject to certain conditions contained in an underwriting agreement that we will enter into with the underwriters at the time of the sale to them. The underwriters will be obligated to purchase all of the securities of the series offered if any of the securities are purchased, unless otherwise specified in connection with any particular offering of securities. Any initial offering price and any discounts or concessions allowed, reallocated or paid to dealers may be changed from time to time.

We may designate agents to sell the offered securities. Unless otherwise specified in connection with any particular offering of securities, the agents will agree to use their best efforts to solicit purchases for the period of their appointment. We may also sell the offered securities to one or more remarketing firms, acting as principals for their own accounts or as agents for us. These firms will remarket the offered securities upon purchasing them in accordance with a redemption or repayment pursuant to the terms of the offered securities. A prospectus supplement or pricing supplement, as the case may be, will identify any remarketing firm and will describe the terms of its agreement, if any, with us and its compensation.

In connection with offerings made through underwriters or agents, we may enter into agreements with such underwriters or agents pursuant to which we receive our outstanding securities in consideration for the securities being offered to the public for cash. In connection with these arrangements, the underwriters or agents may also sell securities covered by this prospectus to hedge their positions in these outstanding securities, including in short sale transactions. If so, the underwriters or agents may use the securities received from us under these arrangements to close out any related open borrowings of securities.

Dealers

We may sell the offered securities to dealers as principals. We may negotiate and pay dealers' commissions, discounts or concessions for their services. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with us at the time of resale. Dealers engaged by us may allow other dealers to participate in resales.

Direct Sales

We may choose to sell the offered securities directly. In this case, no underwriters or agents would be involved.

Institutional Purchasers

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or pricing supplement, as the case may be, will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

Indemnification; Other Relationships

We may have agreements with agents, underwriters, dealers and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business. This includes commercial banking and investment banking transactions.

Market-Making, Stabilization and Other Transactions

There is currently no market for any particular preferred stock that may be offered. If the preferred stock which may be offered is traded after its initial issuance, it may trade at a discount from its initial offering price, depending upon prevailing interest rates, the market for similar securities and other factors.

While it is possible that an underwriter could inform us that it intends to make a market in any particular preferred stock that may be offered, such underwriter would not be obligated to do so, and any such market-making could be discontinued at any time without notice. Therefore, no assurance is given as to whether an active trading market will develop for any particular preferred stock that may be offered. If we seek to list the preferred stock that may be offered on any exchange or quotation system, any such listing with respect to any particular preferred stock will be described in the applicable prospectus supplement or pricing supplement, as the case may be.

In connection with any offering, the underwriters may also engage in penalty bids. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

Some of the underwriters, dealers or agents used by us in any offering of securities under this prospectus may be customers of, engage in transactions with, and perform services for us or affiliates of ours in the ordinary course of business. Any underwriters to which offered securities are sold by us for public offering and sale may make a market in such securities, but those underwriters will not be obligated to do so and may discontinue any market making at any time.

The anticipated date of delivery of the securities offered by this prospectus will be described in the applicable prospectus supplement relating to the offering.

No FINRA member may participate in any offering of securities made under this prospectus if such member has a conflict of interest under FINRA Rule 5121, including if 5% or more of the net proceeds, not including underwriting compensation, of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA members, unless a qualified independent underwriter has participated in the offering or the offering otherwise complies with FINRA Rule 5121.

To comply with the securities laws of some states, if applicable, the securities may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

LEGAL MATTERS

The validity of the securities offered by this prospectus has been passed upon for us by Haynes and Boone, LLP, Houston, Texas, counsel to Applied Optoelectronics, Inc. Certain legal matters will be passed upon for any agents or underwriters by counsel for such agents or underwriters identified in the applicable prospectus supplement.

EXPERTS

The audited financial statements and management's assessment of the effectiveness of internal control over financial reporting incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the reports of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE TO LEARN MORE ABOUT US

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities being offered under this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information in the registration statement. We have omitted certain parts of the registration statement, as permitted by the rules and regulations of the SEC. For further information regarding us and our securities, please see the registration statement and our other filings with the SEC,

including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K and any proxy statements, which are available on the SEC’s Internet website at <http://www.sec.gov>.

We furnish holders of our common stock with annual reports containing audited financial statements prepared in accordance with accounting principles generally accepted in the United States following the end of each fiscal year. We file reports and other information with the SEC pursuant to the reporting requirements of the Exchange Act. In addition, the reports, proxy statements and other information that we file with the SEC are available to you free of charge through the Investor Relations page of our website, <http://ao-inc.com/>, as soon as reasonably practicable after they have been electronically filed with, or furnished to, the SEC. We have included our website address as a textual reference and do not intend it as an active link to our website. The contents of our website are not part of this prospectus, and you should not consider the contents of our website in making an investment decision with respect to our securities. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

Descriptions in this prospectus of documents are intended to be summaries of the material, relevant portions of those documents, but may not be complete descriptions of those documents. For complete copies of those documents, please refer to the exhibits to the registration statement and other documents filed by us with the SEC.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information that we incorporate by reference into this prospectus is considered to be part of this prospectus, and information that we file later with the SEC automatically updates and supersedes any information in this prospectus. We have filed the following documents with the SEC. These documents are incorporated by reference as of their respective dates of filing, as well as any future documents (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this prospectus and prior to the termination of the offering:

1. [our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC on February 23, 2024;](#)
2. [the portions of our Definitive Proxy Statement incorporated by reference to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, for the 2024 Annual Meeting of Stockholders held on June 6, 2024, as filed with the SEC on April 26, 2024;](#)
3. our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2024, June 30, 2024, and September 30, 2024, as filed with the SEC on [May 9, 2024](#) and [August 6, 2024](#) and [November 7, 2024](#);
4. our Current Reports on Form 8-K as filed with the SEC on [March 13, 2024](#), [May 30, 2024](#), [August 6, 2024](#), and [October 10, 2024](#) and [November 7, 2024](#); and
5. the description of our common stock contained in the “Description of Company’s Common Stock” filed as [Exhibit 4.7](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 23, 2024, including any amendment or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this registration statement and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this registration statement and to be a part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document that is incorporated by reference herein modifies or supersedes such earlier statement. Any such

statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Nothing in this registration statement shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Item 2.02 or Item 7.01 of Form 8-K.

We will provide, without charge, upon written or oral request of any person to whom a copy of this prospectus is delivered, a copy of any or all of the foregoing documents and information that has been or may be incorporated in this prospectus by reference, other than exhibits to such documents. Requests for such documents and information should be directed to:

Applied Optoelectronics, Inc.
Attn: Dr. Stefan Murry, Chief Financial Officer
13139 Jess Pirtle Blvd.
Sugar Land, TX 77478
(281) 295-1800

You may also access the documents incorporated by reference in this prospectus through our website at <http://ao-inc.com/>. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

See also “Where to Learn More About Us.”



Common Stock
Preferred Stock
Debt Securities
Warrants
Units

PROSPECTUS

December 18, 2024

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.*

The estimated expenses payable by us in connection with the issuance and distribution of the securities being registered (other than underwriting discounts and commissions) are as follows:

| | | |
|--|----|----|
| SEC registration fee | \$ | * |
| FINRA filing fee | | ** |
| Legal fees and expenses | | ** |
| Accounting fees and expenses | | ** |
| Printing fees and expenses | | ** |
| Transfer agent and trustee fees and expenses | | ** |
| Miscellaneous fees and expenses | | ** |
| Total | \$ | ** |

* In reliance on and in accordance with Rules 456(b) and 457(r), the registrant is deferring payment of all registration fees for these securities.

** These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time. In accordance with Rule 430B under the Securities Act, the applicable prospectus supplement will set forth the estimated amount of expenses of any offering of securities.

Item 15. Indemnification of Directors and Officers.

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware, or the DGCL, empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection

therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our amended and restated bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and certain of our executive officers. These agreements provide that we will indemnify each of our directors and certain of our executive officers to the fullest extent permitted by Delaware law.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

Item 16. Exhibits.

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (a) (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually

or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

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

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof; *provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date;

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser;

(b) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

Applied Optoelectronics, Inc.

Exhibit Index

The following is a list of exhibits filed as a part of this registration statement.

| Exhibit Number | Description |
|-------------------|---|
| 1.1* | Form of Underwriting Agreement. |
| 3.1 | Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 of the Company's Form 10-Q filed on November 14, 2013). |
| 3.2 | Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 of the Company's Form 8-K filed on September 7, 2023). |
| 3.3 | Amended and Restated Bylaws of the Company (incorporated by reference from Exhibit 3.2 of the Company's Form 10-Q, filed on November 14, 2013). |
| 4.1 | Form of Common Stock Specimen (incorporated by reference to Exhibit 4.1 of the Company's Form 8-K, filed on November 14, 2016). |
| 4.2 | Description of the Company's Common Stock (incorporated by reference to Exhibit 4.7 of the Company's Form 10-K filed on February 23, 2024). |
| 4.3* | Form of Certificate of Designation of Preferred Stock. |
| 4.4* | Form of Indenture. |
| 4.5* | Form of Warrant Certificate and Warrant Agreement. |
| 4.6* | Form of Unit Agreement. |
| 5.1+ | Opinion of Haynes and Boone, LLP. |
| 23.1+ | Consent of Haynes and Boone, LLP (included in Exhibit 5.1). |
| 23.2+ | Consent of Grant Thornton LLP. |
| 24.1+ | Power of Attorney (included on the signature page of this Registration Statement). |
| 107+ | Filing Fee Table. |

We will file as an exhibit to a Current Report on Form 8-K any additional required opinions of counsel with respect to the legality of the securities offered hereby and any required opinion of counsel of Applied Optoelectronics, Inc. as to certain tax matters relative to the securities offered hereby.

* To be filed, if necessary, by an amendment to the registration statement or incorporated by reference to a Current Report on Form 8-K filed in connection with an offering of the securities offered hereunder.

+ Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Sugar Land, Texas on the 18th day of December, 2024.

APPLIED OPTOELECTRONICS, INC.

By: /s/ CHIH-HSIANG (THOMPSON) LIN

CHIH-HSIANG (THOMPSON) LIN,
*President, Chief Executive Officer and
 Chairman of the Board of Directors*

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Chih-Hsiang (Thompson) Lin and Stefan J. Murry, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities indicated on December 18, 2024.

APPLIED OPTOELECTRONICS, INC.

| Signature | Date |
|---|-------------------|
| <u>/s/ CHIH-HSIANG (THOMPSON) LIN</u> CHIH-HSIANG (THOMPSON) LIN, President, Chief Executive Officer and Chairman of the Board of Director (principal executive officer) | December 18, 2024 |
| <u>/s/ STEFAN J. MURRY</u> STEFAN J. MURRY Chief Financial Officer (principal financial officer and principal accounting officer) | December 18, 2024 |
| <u>/s/ CHE-WEI LIN</u> CHE-WEI LIN, Director | December 18, 2024 |
| <u>/s/ WILLIAM H. YEH</u> WILLIAM H. YEH, Director | December 18, 2024 |

| Signature | Date |
|---|-------------------|
| /s/ RICHARD B. BLACK RICHARD B. BLACK, Director | December 18, 2024 |
| /s/ CYNTHIA (CINDY) DELANEY CYNTHIA (CINDY) DELANEY, Director | December 18, 2024 |
| /s/ ELIZABETH LOBOA ELIZABETH LOBOA, Director | December 18, 2024 |
| /s/ MIN-CHU (MIKE) CHEN MIN-CHU (MIKE) CHEN, Director | December 18, 2024 |

December 18, 2024

Applied Optoelectronics, Inc.
13119 Jess Pirtle Blvd.
Sugar Land, TX 77478

Ladies and Gentlemen:

We have acted as counsel for Applied Optoelectronics, Inc., a Delaware corporation (the "**Company**"), in connection with the filing with the Securities and Exchange Commission (the "**Commission**") on the date hereof, under the Securities Act of 1933, as amended (the "**Act**") of a registration statement on Form S-3 (the "**Registration Statement**") by the Company relating to (a) the issuance and sale by the Company of (i) shares of common stock, par value \$0.001 per share, of the Company (the "**Common Stock**"), (ii) shares of preferred stock, par value \$0.001 per share, of the Company (the "**Preferred Stock**"), (iii) debt securities of the Company (the "**Debt Securities**"), (iv) warrants to purchase Common Stock, Preferred Stock or Debt Securities (the "**Warrants**") and (v) units comprising one or more securities described in clauses (i) through (iv) above in any combination (the "**Units**" and, together with the Common Stock, the Preferred Stock, the Debt Securities and the Warrants, the "**Securities**" and individually a "**Security**") that may be issued and sold from time to time pursuant to Rule 415 under the Act for an aggregate initial offering price to be determined at a later date by the Company Board (as defined below) and (b) the resale from time to time of Securities by certain securityholders of the Company (the "**Resale Securities**").

For purposes of the opinions we express below, we have examined originals, or copies certified or otherwise identified, of (i) the certificate of incorporation and bylaws, each as amended to date, of the Company (the "**Company Charter Documents**"); (ii) the Registration Statement and all exhibits thereto; (iii) the base prospectus for the offer and sale of the Securities (as may be amended or supplemented, the "**Base Prospectus**"); (iv) the specimen Common Stock certificate of the Company; (v) the minutes and records of the corporate proceedings of the Company with respect to the filing of this Registration Statement; and (vi) such other corporate records of the Company as we have deemed necessary or appropriate for purposes of the opinions hereafter expressed.

As to questions of fact material to the opinions expressed below, we have, without independent verification of their accuracy, relied to the extent we deem reasonably appropriate upon the representations and warranties of the Company contained in such documents, records, certificates, instruments or representations furnished or made available to us by the Company.

In making the foregoing examination, we have assumed (i) the genuineness of all signatures, (ii) the authenticity of all documents submitted to us as originals, (iii) the conformity to original documents of all documents submitted to us as certified or photostatic copies, (iv) that all agreements or instruments we have examined are the valid, binding and enforceable obligations of the parties thereto, and (v) that all factual information on which we have relied was accurate and complete.

We have also assumed that prior to, or in connection with, the issuance of any Securities: (i) the Company will continue to be incorporated and in existence and good standing in its jurisdiction of organization, (ii) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective; (iii) no stop order of the Commission preventing or suspending the use of the Base Prospectus contained in the Registration Statement or any prospectus supplement will have been issued; (iv) along with the prospectus contained in the Registration Statement, a prospectus supplement will have been prepared and along with the prospectus contained in the Registration Statement, filed with the Commission properly describing the Securities offered thereby and will have been delivered to the purchaser(s) of the Securities as required in accordance with applicable law; (v) all Securities will be offered, issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the appropriate prospectus supplement; (vi) a definitive purchase, underwriting or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto and will be an enforceable obligation of the parties thereto; (vii) in connection with the issuance of Debt Securities, any applicable indenture, indenture supplement or agreement relating to the Debt Securities (an "**Indenture**") will have been duly authorized and validly executed and delivered by all applicable parties, will comply with applicable law and will be enforceable in all respects in accordance with its terms; (viii) in connection with the sale of Warrants, any required warrant agreement or agreement relating to the Warrants (a "**Warrant Agreement**") will have been duly authorized and validly executed and delivered by all applicable parties and will be enforceable in all respects in accordance with its terms; (ix) in connection with the sale of any Units, any required unit agreement or agreement relating to the Units (a "**Unit Agreement**") will have been duly authorized and validly executed and delivered by all applicable parties and will be enforceable in all respects in accordance with its terms; (x) any securities issuable upon conversion, exchange, redemption or exercise of any Securities being offered will be duly and validly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange, redemption or exercise; and (xi) with respect to shares of Common Stock or Preferred Stock, there will be sufficient shares of Common Stock or Preferred Stock authorized under the Company Charter Documents and not otherwise reserved for issuance.

Based on the foregoing, and subject to the limitations and qualifications set forth herein, we are of the opinion that:

1. With respect to shares of Common Stock, when (i) the Board of Directors of the Company or, to the extent permitted by the General Corporation Law of the State of Delaware (the “*DGCL*”) and the Company Charter Documents, a duly constituted and acting committee thereof (such Board of Directors or committee being hereinafter referred to as the “*Company Board*”) has taken all necessary corporate action to approve the issuance thereof and the terms of the offering of shares of Common Stock and related matters, and (ii) certificates representing the shares of Common Stock have been duly executed, countersigned, registered and delivered, or if uncertificated, valid book-entry notations have been made in the share register of the Company, in each case in accordance with the provisions of the Company Charter Documents, either (a) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Company Board and upon payment of the consideration therefor (which shall not be less than the par value of the Common Stock) provided for therein, all in accordance with the Registration Statement and any applicable prospectus supplement, or (b) upon conversion, exchange, redemption or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange, redemption or exercise as approved by the Company Board, and for the consideration approved by the Company Board (which shall not be less than the par value of the Common Stock), all in accordance with the Registration Statement and any applicable prospectus supplement, the shares of Common Stock will be validly issued, fully paid and non-assessable.

2. With respect to shares of Preferred Stock, when (i) the Company Board has taken all necessary corporate action to approve and establish the terms of the shares of Preferred Stock, to approve the issuance thereof and the terms of the offering thereof and related matters, including the adoption of a Certificate of Designations relating to such Preferred Stock (a “*Certificate of Designations*”), and such Certificate of Designations has been filed with the Secretary of State of the State of Delaware, and (ii) certificates representing the shares of Preferred Stock have been duly executed, countersigned, registered and delivered, or if uncertificated, valid book-entry notations have been made in the share register of the Company, in each case in accordance with the provisions of the Company Charter Documents, either (a) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Company Board and upon payment of the consideration therefor (which shall not be less than the par value of the Preferred Stock) provided for therein, all in accordance with the Registration Statement and any applicable prospectus supplement, or (b) upon conversion, exchange, redemption or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange, redemption or exercise as approved by the Company Board, and for the consideration approved by the Company Board (which shall not be less than the par value of the Preferred Stock), all in accordance with the Registration Statement and any applicable prospectus supplement, the shares of Preferred Stock will be validly issued, fully paid and non-assessable.

3. With respect to Debt Securities to be issued under an Indenture, when (i) the Indenture has been duly authorized and validly executed and delivered by the Company and the trustee thereunder, (ii) the trustee under the Indenture is qualified to act as trustee under the Indenture, (iii) the Indenture has been duly qualified under the Trust Indenture Act of 1939, as amended, (iv) the Company Board has taken all necessary corporate action to approve and establish the terms of such Debt Securities, to approve the issuance thereof and the terms of the offering thereof and related matters and such Debt Securities do not include any provision that is unenforceable, and (v) such Debt Securities have been duly established, executed, authenticated, issued and delivered in accordance with both the provisions of the Indenture and either (a) the provisions of the applicable definitive purchase, underwriting or similar agreement approved by the Company Board, and upon payment of the consideration therefor provided for therein, or (b) upon conversion, exchange, redemption or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange, redemption or exercise as approved by the Company Board and for the consideration approved by the Company Board, all in accordance with the Registration Statement and any applicable prospectus supplement, such Debt Securities will constitute legal, valid and binding obligations of the Company.

4. With respect to Warrants, when (i) the Company Board has taken all necessary corporate action to approve the creation of and the issuance and terms of the Warrants, the terms of the offering thereof and related matters, (ii) the Warrant Agreements and Warrants have been duly prepared, authorized and validly executed and delivered by the Company and the other parties thereto (if any) in compliance with all applicable laws, and (iii) the Warrants or certificates representing the Warrants have been duly registered and delivered in accordance with the appropriate Warrant Agreements and the applicable definitive purchase, underwriting or similar agreement approved by the Company Board and upon payment of the consideration therefor provided for therein (which shall not be less than the par value of any Common Stock or Preferred Stock underlying such Warrants), all in accordance with the Registration Statement and any prospectus supplement, the Warrants will constitute valid and legally binding obligations of the Company.

5. With respect to Units, when (i) the Company Board has taken all necessary corporate action to approve the creation of and the issuance and terms of the Units, the terms of the offering thereof and related matters, (ii) the Unit Agreements and Units have been duly prepared, authorized and validly executed and delivered by the Company and the other parties thereto (if any) in compliance with all applicable laws, and (iii) the Units or certificates representing the Units have been duly registered and delivered in accordance with the appropriate Unit Agreements and the applicable definitive purchase, underwriting or similar agreement approved by the Company Board and upon payment of the consideration therefor provided for therein (which shall not be less than the par value of any Common Stock or Preferred Stock underlying such Unit), all in accordance with the Registration Statement and any prospectus supplement, the Units will constitute valid and legally binding obligations of the Company.

6. When an issuance of Resale Securities constituting Common Stock or Preferred Stock has been duly authorized by all necessary corporate action of the Company, such Resale Securities will be validly issued, fully paid and non-assessable.

7. When an issuance of Resale Securities constituting Debt Securities, Warrants or Units has been duly authorized by all necessary corporate action of the Company, such Resale Securities will constitute valid and legally binding obligations of the Company.

The opinions set forth above are subject to the following qualifications, limitations and exceptions:

(a) The opinions are subject to (i) the effect of any applicable bankruptcy, insolvency, reorganization, moratorium, rearrangement, liquidation, conservatorship or other similar laws now or hereafter in effect relating to or affecting the rights of creditors generally, (ii) provisions of applicable law pertaining to the voidability of preferential or fraudulent transfers and conveyances and (iii) the fact that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(b) The opinions are subject to the effect of (i) general principles of equity, including (without limitation) concepts of materiality, reasonableness, good faith and fair dealing, general matters of public policy and other similar doctrines generally affecting the enforceability of agreements (regardless of whether considered in a proceeding in equity or at law), (ii) provisions purporting to make a guarantor primarily liable rather than as a surety and (iii) other commonly-recognized statutory and judicial constraints on enforceability, including statutes of limitation, limitations on rights to indemnification that contravene law or public policy and the effectiveness of waivers of rights or benefits that cannot be effectively waived under applicable law.

(c) In rendering the opinions, we have assumed that, at the time of the sale of the Securities, (i) the resolutions of the Board of Directors or similar governing body, as reflected in the minutes and proceedings of the Company, will not have been modified or rescinded, (ii) the Company will continue to be incorporated and in existence and good standing under the laws of the State of Delaware and (iii) there will not have occurred any change in the laws affecting the authorization, execution, delivery, issuance, sale, ranking, validity or enforceability of the Securities.

The opinions expressed herein are limited to the federal laws of the United States of America, and, to the extent relevant to the opinions expressed herein, the DGCL as in effect on the date hereof (all of the foregoing being referred to as the “*Opined on Law*”). We do not express any opinion with respect to any other laws, or the laws of any other jurisdiction (including, without limitation, any laws of any other jurisdiction which might be referenced by the choice-of-law rules of the Opined Law), other than the Opined on Law or as to the effect of any such other laws on the opinions herein stated.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to our firm contained therein under the heading “Legal Matters.” In giving this consent, we do not hereby admit we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Haynes and Boone, LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 23, 2024 with respect to the consolidated financial statements and internal control over financial reporting of Applied Optoelectronics, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2023, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned reports in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Houston, Texas
December 18, 2024

Calculation of Filing Fee Tables

FORM S-3

APPLIED OPTOELECTRONICS, INC.

Table 1: Newly Registered Securities and Carried Forward Securities

| Security Type | Security Class Title(1) | Fee Calculation or Carry Forward Rule | Amount Registered | Proposed Maximum Offering Price Per Unit | Maximum Aggregate Offering Price | Fee Rate | Amount of Registration Fee | Carry Forward Form Type | Carry Forward File Number | Carry Forward Initial effective date | Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward |
|--|-------------------------|---------------------------------------|-------------------|--|----------------------------------|----------|----------------------------|-------------------------|---------------------------|--------------------------------------|---|
| Newly Registered Securities | | | | | | | | | | | |
| Primary Offering of Securities: | | | | | | | | | | | |
| Fees to Be Paid | Equity | Common Shares, \$0.001 par value | 456(b) and 457(r) | (2) | (2) | (2) | (3) | (3) | | | |
| Fees to be Paid | Equity | Preferred Stock, \$0.001 par value | 456(b) and 457(r) | (2) | (2) | (2) | (3) | (3) | | | |
| Fees to Be Paid | Other | Warrants | 456(b) and 457(r) | (2) | (2) | (2) | (3) | (3) | | | |
| Fees to Be Paid | Other | Units | 456(b) and 457(r) | (2) | (2) | (2) | (3) | (3) | | | |
| Fees Previously Paid | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| Carry Forward Securities | | | | | | | | | | | |
| Carry Forward Securities | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total Offering Amounts | | | | | | | N/A | N/A | | | |
| Total Fees Previously Paid | | | | | | | N/A | N/A | | | |
| Total Fee Offsets | | | | | | | N/A | N/A | | | |
| Net Fee Due | | | | | | | N/A | N/A | | | |

(1) Any securities registered may be sold separately, together or in units with other securities registered hereunder. Separated consideration may or may not be received for any securities issued upon the conversion, redemption, exchange, exercise or settlement of any securities registered hereunder.

(2) There is to be registered hereunder such indeterminate number or amount of securities of each identified class as may from time to time be issued by the registrant at indeterminate prices and as may be issuable upon conversion, redemption, exchange, exercise or settlement of any securities registered hereunder, including under any applicable anti-dilution provisions.

(3) In reliance on Rule 456(b) and Rule 457(r) under the Securities Act of 1933, as amended (the "Securities Act"), the registrant is deferring payment of all registration fees. In connection with the securities offered hereby, the registrant will pay "pay-as-you-go registration fees" in accordance with Rule 456(b). The registrant will calculate the registration fee applicable to an offer of securities pursuant to this registration statement based on the fee payment rate in effect on the date of such fee payment.