



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 7, 2013

Via E-mail

Chih-Hsiang (Thompson) Lin
President and Chief Executive Officer
Applied Optoelectronics, Inc.
13115 Jess Pirtle Blvd.
Sugar Land, TX 77478

**Re: Applied Optoelectronics, Inc.
Amendment No. 1 to
Draft Registration Statement on Form S-1
Submitted May 22, 2013
CIK No. 0001158114**

Dear Dr. Lin:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Prospectus Summary, page 1

1. Refer to your response to prior comment 1.
 - Please clarify in your disclosure against whom you are comparing yourself in the statement you make in the first full sentence on page 2, and provide us support for the comparison.
 - Please revise the last sentence of the first bullet point on page 83 and the penultimate sentence of the penultimate bullet point on page 84 to clarify against whom you are comparing yourself. If competitors also can provide the advantages, please ensure that your disclosure here and in the last paragraph on page 1 does not imply otherwise.

2. Please expand your response to prior comment 2 to demonstrate clearly how the material you provided supports the \$2.2 billion market opportunity disclosed on page 1 of your prospectus. Your response should (1) indicate clearly how your products address the entire market mentioned in your supporting material and (2) explain all relevant technical terms and acronyms in the supporting material.
3. We note your response to prior comment 3. However, your document should not selectively highlight companies based on their size or reputation in a manner that disproportionately represents their contributions to your business. Please relocate this disclosure to a more appropriate section of your document where you can provide sufficient context to explain the criteria that you selected to determine which companies to identify. Please ensure that the criteria you select results in disclosure that accurately represents your business, that your relocated disclosure clearly conveys the significance of the named companies to your current operations, that you clearly indicate which companies satisfy which criteria, and that you have identified all of the companies that satisfy the criteria that you have selected.
4. Please expand your response to prior comment 6 to tell us why you believe the detail that you retained is appropriate for your prospectus summary. For example, it is unclear why your summary includes statistics regarding shipments of 10 gigabit ethernet ports and detail regarding the cable television market. If this information is relevant to an investment decision, would it not be more appropriate for disclosure later in your document so that it does not overwhelm required disclosure in the summary about the aspects of your offering that are most significant? Likewise, it is unclear why it is appropriate for your prospectus summary to highlight a \$2.2 billion “revenue opportunity” estimate before the sections of your prospectus that explain the results that you have achieved and the related risks. Instead, your summary should focus investors on those aspects of your offering that are the most significant using concrete, everyday terms, avoiding unnecessary technical terminology, acronyms, and jargon like “solutions,” and leaving unnecessary detail for subsequent sections of your document where it can be understood within appropriate context.

Our Strengths, page 4

5. Please tell us why you believe it is appropriate to highlight in your document the information in the last sentence of the second bullet point in this section given your response to prior comment 20.

Summary Consolidated Financial Data, page 9

6. We refer to your response to prior comment 8. Based on the balance sheet presented on page F-3, the amount labeled “Total stockholders’ equity (deficit)” appears to be the

“Accumulated deficit.” Please either appropriately label the amount presented on page 12 or revise to present the amount for total stockholders’ equity, if that was your intention.

Risk Factors, page 13

7. If there is a material risk that customers may elect a technology for their fiber optic networks that differs from the technology you offer, please add a separate risk factor that directly highlights the risk and the other technologies available.

We may be involved in intellectual property disputes, page 26

8. Please disclose the substance of your response to prior 12.

If we fail to maintain effective internal control, page 27

9. We note your response to prior comment 13; however, the last paragraph of this section says that your internal controls can provide “no assurance...” while your response indicates that your controls provide reasonable assurance. Please clarify your disclosure.

We are subject to governmental export and import controls, page 29

10. We note your deletions in response to prior comment 38. Please provide disclosure in an appropriate section of your document to explain the nature of the import and export controls that materially affect your business and the portion of your business affected.

Special Note Regarding Forward Looking Statements and Industry Data, page 38

11. We are unable to agree with your response to prior comment 15. When you file your registration statement via Edgar, please include the consent of the third-party that provided the disclosed market data you commissioned for use in connection with the registration statement.

Use of Proceeds, page 39

12. Please address that part of prior comment 16 that asked you to disclose the portion of the proceeds to be used for each of the purposes mentioned in what is now the first sentence of the second paragraph of this section. Your disclosure should address the approximate amount that you currently intend to use for each purpose as required by Regulation S-K Item 504; you may reserve the right to change the use of proceeds as provided in Instruction 7 to Item 504. Also, if you do not have a specific plan for a significant portion of the proceeds, please say so clearly and discuss the principal reasons for the offering.

13. Please ensure that your disclosure throughout your document is current. For example, we note your reference to maturity dates in May 2013 on page 39 and April 2013 on page 68 and your disclosure as of December 31, 2012 in the last paragraph on page 65. In addition, your disclosure on page II-3 does not appear to be updated for the exercise of warrants in March 2013 mentioned in the last sentence on page F-31.

Capitalization, page 40

14. Disclosure on page F-32 to the notes to financial statements suggests that several of the warrants exercise on a cashless basis upon the closing of the offering. Tell us why warrants that will exercise on a cashless basis at the offering date are not considered in shares outstanding on a pro forma and pro forma, as adjusted basis. Also, address this matter with respect to the dilution disclosure on pages 43 and 44.

Dilution, page 43

15. Please revise the first paragraph to also disclose actual net tangible book value at March 31, 2013. Also, show us how the balance sheet amounts for intangible assets and land use rights, which also appears to be an intangible asset, are considered in your determination of actual and pro forma net tangible book value. Show us how actual net tangible book value per share of \$3.73 was determined.

Factors Affecting Our Performance, page 48

16. Please expand your response to prior comment 20 to tell us why you believe that investors have sufficient information to evaluate the factor described in the second paragraph of this section if you do not disclose the number of new design wins in each period or otherwise quantify how design wins are affecting your results in the periods presented. It is unclear why the issues you identify in your response could not be addressed by appropriate explanation accompanying your disclosure of the number of design wins.

Revenue, page 49

17. Refer to your response to prior comment 21. If the last sentence on page 49 compares your results to companies that have a different, narrower or broader product line or market focus, please provide sufficient disclosure about the differences and the companies against whom you are comparing yourself so investors can evaluate your disclosure about your relative price decline.

Gross Margin, page 55

18. Please expand your disclosure of the unfavorable product mix to discuss what types of products were selling more and what types were selling less and the reasons for the changes. After you revise your disclosure in responses to this comment, we will continue to evaluate your response to prior comment 36 regarding Regulation S-K Item 101(c)(1)(i); we note the “product categories” identified on your web site.

Other Income, page 56

19. Please describe the nature of the government subsidy.

Revenue Recognition, page 72

20. You state that products returned under warranty claims are repaired and returned to customer with no impact on revenue. You then contradict this statement later by stating that revenue is net of warranty expenses. Please clarify how you are presenting warranty costs.

Stock-Based Compensation, page 73

21. We may have further comments regarding your response to prior comment 25 after you file the consents.
22. We refer to your response to prior comment 29. Please further clarify the factors you considered in establishing the fair value of your common shares for purposes of measuring stock-based compensation during 2012. In that regard:
- Please make the disclosure more specific to the individual grant dates. For instance, it is not clear how your expectation about revenues for the first quarter of 2013 is relevant to the option grants in February and May of 2012.
 - Please disclose the dates and per share prices realized in the sales of the series F and series G shares. Clarify how you considered differences in the rights of the different instruments and also clarify the extent to which there was third-party participation in these offerings.
 - Clarify how the growth and development of your business was considered in your determinations. We note for instance, growing revenues and reduced losses in 2012 and that your business generated positive operating income in two quarters of that year.
 - Clarify why you continued to use a valuation from March of 2009. Explain why you believe that valuation continued to be valid, including how you evaluated actual performance of your business against that projected at the time of the 2009 valuation.

23. With respect to the grant in January 2013, in light of the pending offering, please tell us and revise to explain why a marketability discount of 30% is appropriate. Also tell us and revise to explain how you arrived at the cost of capital assumption. Please note that we may have further comment if there is a significant difference between the proposed offering price and fair value assigned to your shares for stock compensation purposes for grants in periods just prior to the offering.

Industry Background, page 79

24. Please disclose the substance of the first sentence of your response to prior comment 31.

Optical hybrid-integration technology, page 86

25. Please expand your response to prior comment 32 to tell us whether wavelength drift with temperature changes is an issue with WDM-PON.

Our Products, page 87

26. Please expand your response to prior comment 34 to tell us whether any product that you do not include in the pictures on pages 88-90 generate more revenue than any of the products that you do include. If so, please quantify the differences for us and tell us why you believe omission of the products is appropriate.

Direction Compensation, page 100

27. Please expand your response to prior comment 40 to clarify the nature of the consulting agreements with your board members mentioned on page F-35. Your response should clarify the nature of the affiliation between the directors and the entities, the nature of the services, and what person actually performed the services. It remains unclear why disclosure is not required per Regulation S-K Item 402(r).

Certain Relationships and Related Party Transactions, page 117

28. Please expand your response to prior comments 40 and 45 to tell us the authority on which you rely to provide your disclosure based on stock ownership “on an as-converted basis.” Also tell us about all transactions that you would have disclosed under this section if you did not present the information based “on an as-converted basis.”

Stock Option Awards, page 120

29. We note your response to prior comment 44; however, that comment sought disclosure of the risk created by provisions like section 2.4 of Exhibit 10.8 which, by defining a Change in Control as any event required to be reported under Item 1 of Form 8-K, appear

to accelerate options whenever you enter into any material agreement. Please revise or advise.

Principal and Selling Stockholders, page 121

30. Please clarify your disclosure in this section regarding Dr. Lin's 1.3% ownership to also explain the intended 6% grant mentioned on page 120.

Warrants, page 125

31. Please tell us why you have not included disclosure in this section of the \$0.60 warrants mentioned in the first paragraph of subsection (c) on page II-3.

Financial Statements, page F-1

Note B. Summary of Significant Accounting Policies, page F-8

Fair Value, page F-9

32. Please expand to also disclose the fair value of your borrowings and the underlying methods and assumptions you applied to arrive at your determinations at each balance sheet date, including March 31, 2013. Refer to FASB ASC 825-10-50.

Note D. Inventories, page F-17

33. Please disclose the composition of inventories at March 31, 2013. Refer to FASB ASC 270-10-S99-1.

Note G. Fair Value of Financial Instruments, page F-19

34. Please expand to provide fair value disclosure as of March 31, 2013. Refer to FASB ASC 270-10-50 and FASB ASC 820-10-50. In that regard, it appears that the interest rate swap, which would appear to be a derivative, should also be included in your fair value disclosures.

Note O. Segment Information and Geographic Information, page F-33

35. We refer to your response to prior comment 73. Please expand to present product line disclosure for each annual period presented in your financial statements. Refer to FASB ASC 280-10-50-40.

Signatures

36. Because you have not yet filed your registration statement, your Signatures page to your first filing should not refer to the document as an amendment.

Exhibit 3.2

37. We note your forum selection clause in your charter. We understand that several lawsuits have challenged the validity of choice of forum provisions in certificates of incorporation. In an appropriate section of your prospectus, please disclose that although you have included a choice of forum clause in your restated certification of incorporation, it is possible that a court could rule that such provision is inapplicable or unenforceable.

Exhibit 10.28

38. Please file the complete agreement as an exhibit. For example we note the exhibit is missing several provisions, such as the provisions in section 5.6(1)(iii) and section 6.2(3)(ix).

General

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at <http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm>.

You may contact Praveen Kartholy, Staff Accountant, at (202) 551-3778 or Gary Todd, Accounting Reviewer, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via e-mail): Frank S. Wu, Esq.