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August 13, 2013

VIA EDGAR AND OVERNIGHT DELIVERY

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: Russell Mancuso
Tom Jones
Praveen Kartholy
Gary Todd

Re: Applied Optoelectronics, Inc.
Amendment No. 2 to Confidential Draft Registration Statement on Form S-1
Submitted June 28, 2013
CIK No. 0001158114

Ladies and Gentlemen:

We are submitting this letter on behalf of Applied Optoelectronics, Inc. (the "**Company**") in response to comments from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") received by letter dated July 16, 2013 (the "**Staff Letter**") relating to the Company's Amendment No. 2 to Confidential Draft Registration Statement on Form S-1 ("**Amendment No. 2**").

Additionally, on behalf of the Company, we are supplementally providing with this letter a folder including materials in support of various statements in the Registration Statement (the "**Supplemental Materials**"). We have included cross-references to the Supplemental Materials in this letter where appropriate. Because of the commercially sensitive nature of certain information contained in the Supplemental Materials, this submission is accompanied by the Company's request for confidential treatment for selected portions of the Supplemental Materials pursuant to Rule 83 of the Commission's Rules on Information and Requests, 17 C.F.R. § 200.83, and the Freedom of Information Act. Pursuant to Rule 418(b) of the Securities Act of 1933, as amended, the Company respectfully requests that the Staff return upon completion of its review each of the Supplemental Materials furnished to the Staff. The Company confirms to the Staff that the Supplemental Materials were not filed in electronic format.

In response to the comments set forth in the Staff Letter, the Company has revised the Registration Statement and, together with this response, is publicly filing a revised Registration Statement (the "**Registration Statement**"). For the convenience of the Staff, we are providing by overnight delivery to the Staff a copy of this letter, four marked copies of the Registration Statement (against Amendment No. 2, which was confidentially submitted on June 28, 2013) and four copies of the Supplemental Materials.

The Company is also supplementally providing to the Staff the relevant portions of the industry data from Akamai, Cisco and Infonetics as cited in the Registration Statement on pages 79 through 82 thereof. Please refer to the materials attached as Annex A to the Supplemental Materials. To expedite the Staff's review, we have marked the industry data so that the Staff can easily locate and review the relevant data.

In this letter, we have recited the comments from the Staff Letter in italicized, bold type and followed each comment with the Company's response. Except as otherwise specifically indicated, page references in the Company's responses correspond to the page of the Registration Statement.

Prospectus Summary, page 1

- We note your revisions in response to prior comment 4; however, given the retained focus in your summary on detail regarding your markets and industry, it remains unclear what are your "fiber-optic networking solutions" and "optical communications ... components, subassemblies and modules" that you mention in the first paragraph of the overview. Please state clearly, directly and prominently without technical jargon what your products are and do, and relocate detail that is more appropriate for another section of your prospectus.***

Response: In response to the Staff's comment, the Company has further revised the prospectus summary to relocate the details noted by the Staff to other portions of the Registration Statement. The Company has also revised the prospectus summary to further reduce the use of technical jargon. The Company added language in the first paragraph on page 1 to further describe its products. The Company considered adding additional detail to the prospectus summary regarding its products; however, since the Company offers several thousand different products (as described on pages 88 to 91 of the Registration Statement), the Company believes that adding even more detail would make the summary too long and would potentially be confusing to investors.

- If your disclosure in the third paragraph of the overview about your leadership positions is based on sales data that excludes categories of products, please expand your disclosure to clarify the basis of your leadership claims. If the expanded disclosure is inappropriate for a***

prospectus summary, please relocate your leadership claims to a section of your document where you can provide sufficient explanation for investors to understand the basis for and limitations of your claims.

Response: The Company advises the Staff that the Company's leadership positions are based on sales data as presented by Ovum Limited ("Ovum") that excludes certain categories of products from the CATV optical component market and the subsystems market, specifically pump lasers, Erbium-doped Fiber Amplifiers (EDFAs), and certain EDFA components (optical fiber and inline isolators). These products were excluded in the Ovum Report on the basis that sales of such excluded products are small relative to the other components and subsystems that are included in the Ovum Report. As noted in the Ovum Report, neither the Company nor the Company's principal competitors make such excluded products. The inclusion of the excluded categories of products in the Ovum Report would not have changed the Company's ranking as shown in the Ovum Report. The Company has confirmed the accuracy of the above information with Ovum by telephone.

3. **Although we are not objecting to your summary disclosure regarding your two largest customers, please address that part of comment 3 regarding relocation of the other disclosure in the first paragraph on page 2 and your statements about Amazon, Facebook, Google and Microsoft to a more appropriate section of your prospectus after your prospectus summary. In your relocated disclosure, please ensure that you have disclosed the criteria that you used to determine which entities to name, that you disclose all entities that satisfy those criteria, and that the extent of each identified entity's current contribution to your business is clear.**

Response: The Company has revised the Registration Statement on pages 2 and 3 to relocate the disclosure in the first paragraph on page 2 of Amendment No. 2 and deleted the references to Amazon, Facebook, Google and Microsoft in response to the Staff's comments. The Company has also revised the Registration Statement on page 79 to describe the criteria and contribution that were used to determine which entities to name.

4. **We note your responses to prior comments 2 and 4 regarding the \$2.2 billion "revenue opportunity" now mentioned on page 2. Please relocate such disclosure from the prospectus summary to a section of your document that appears after you have explained the results that you have achieved and the related risks. Also, if the \$2.2 [billion] opportunity includes either (1) sales from products you do not offer, or (2) potential customers other than those who operate open system architectures that you say on page 87 you target, please tell us why you believe it is appropriate to claim a \$2.2 billion opportunity.**

Response: The Company advises the Staff that the Company has removed the \$2.2 billion "revenue opportunity" from the Prospectus Summary. In addition, the Company advises the Staff that the Company estimates the \$2.2 billion "revenue opportunity" as the Company's current addressable market based on the data prepared by Ovum. Please refer to Annex B of the Supplemental Materials for support in response to the SEC's comment regarding the \$2.2 billion "revenue opportunity".

The Offering, page 7

5. **Please reconcile your disclosure on pages 7-8 about the number and types of securities to be outstanding after the offering with your disclosure on page 128.**

Response: The Company advises the Staff that, once the price range for the Company's common stock in this offering is known and specified in the Company's preliminary prospectus, the Company will revise the Registration Statement on pages 7 and 8 to reflect the assumed effect of the issuance of additional shares of common stock upon the conversion of certain warrants into common stock and the number of shares outstanding immediately prior to the offering will be revised to be presented in the following format (subject to change based on warrant exercises occurring after the date of this letter):

The number of shares of our common stock to be outstanding after this offering is based on [] shares of our common stock outstanding as of June 30, 2013.

This number of shares does not include:

- 22,083,499 shares of common stock subject to outstanding options as of June 30, 2013, with a weighted average exercise price of \$0.25436 per share;
- 650,000 shares of Series F preferred stock issuable upon the exercise of outstanding warrants, with a weighted average exercise price of \$0.31277 per share, which, if not exercised pursuant to their terms prior to the completion of this offering, will convert to be exercisable for an aggregate of 780,011 shares of common stock at a weighted average exercise price of \$0.32051 per share;
- 200,000 shares of Series G preferred stock issuable upon the exercise of an outstanding warrant with an exercise price of \$0.35 per share, which, if not exercised pursuant to its terms prior to the completion of this offering, will convert to be exercisable for of 200,000 shares of common stock at an exercise price of \$0.35 per share; and
- 24,000,000 shares of common stock available for future sale or issuance under our stock option plans.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- the automatic conversion of all of our outstanding shares of preferred stock into 261,286,610 shares of our common stock upon the closing of this offering;
- the automatic conversion of certain outstanding warrants to purchase shares of preferred stock that, if not exercised prior to the completion of this offering, are expected to automatically convert in the aggregate into [] shares of common stock, based on the midpoint of the price range on the front cover of this prospectus;
- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the closing of this offering; and

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

6. ***From your disclosure on pages 97-98 in response to prior comment 10, it remains unclear what controls would have the effects that you mention in this risk factor. Please revise or advise.***

Response: The Company has revised the Registration Statement on pages 29 and 30 to modify the risk factor to specifically identify the export/import controls affecting the Company in response to the Staff's comment.

Use of Proceeds, page 39

7. ***It is unclear how your revised disclosure addresses the last sentence of prior comment 12. If you do not have a specific plan for a significant portion of the proceeds, please say so clearly in this section and disclose the principal reasons for the offering.***

Response: The Company has revised the Registration Statement on page 39 to address the Staff's comment.

Factors affecting our performance, page 48

8. ***Given your responses to prior comments 5 and 16 and your disclosure that design wins are a key factor affecting your performance, it is unclear why you believe the disclosure in your prospectus provides sufficient information for investors to evaluate how the design wins affected your performance in the periods presented and what the design win trends are. Please advise or revise.***

Response: The Company has revised the Registration Statement on page 49 to remove design wins as a factor affecting the Company's performance to address the Staff's comment.

Comparison of the three months ended March 31, 2013 and March 31, 2012, page 55

9. ***Please disclose why your revenues from the CATV and FTTH markets declined in the three months ended March 31, 2013.***

Response: The Company has revised the Registration Statement on page 54 to reflect results from the first half of 2013 (Q1 and Q2), and has indicated in that disclosure the reason for the decline in CATV revenue during the first half of 2013 in comparison to the first half of 2012.

Gross margin, page 56

10. ***Please expand your response to prior comment 18 to clarify how you know that "gross margin was primarily the result of an unfavorable product mix" but you are unable to disclose to investors how or why the mix changed unfavorably. Also, please tell us whether any of the "product categories" disclosed on your web site contributed 15% or more of your consolidated revenue during any of the last three years.***

Response: The Company has revised the Registration Statement on page 55 to provide additional information regarding its gross margin within various markets and how product mix within a market can differ by geography. The Company has also expanded the disclosure in such section to indicate that the Company sells similar products in different geographic regions at different prices, resulting in different gross margins among those similar products. The decrease in gross margin in the first half of 2013 was primarily the result of an unfavorable product mix in the Asian market, leading to higher than normal direct labor and overhead charges during such period. Additionally, the Company recorded a higher than normal inventory reserve from discontinued products associated with inventory on hand in the Company's Asia operations.

The Company advises the Staff that the product categories identified on the Company's website are used only to group products by identifying certain similarities among the Company's products for potential customers. In the Registration Statement, the Company discloses classes of products by reference to the markets in which they are used and groups its products by the CATV, internet data center, FTTH and other markets for illustrative purposes, which groupings the Company believes are more meaningful to potential investors. As disclosed on page 49 of the Registration Statement, the CATV market represented the only end-market from which the Company derived more than 15% of its revenue for fiscal year 2012. With respect to the product categories on the Company's website, some of these categories are not market specific, such as TOSA, Digital, Transceivers and Sub-Assemblies, and others are partially overlapping, such as CATV and Sub-Assemblies, on the one hand, and FTTH and Transceivers, on the other. As disclosed on page 49 of the Registration Statement, FTTH (generally referenced in the Registration Statement as FTTH) represented less than 15% of the Company's total revenue for fiscal year 2012. The Company believes that TOSA, Digital, Photodetectors and Wireless product categories each encompassed less than 15% of the Company's revenue for fiscal year 2012; however, these categories are not used by the Company to track revenue or financial performance and, as a result, the Company does not specifically record revenue based on these product categories.

Stock-Based Compensation, page 74

11. ***We refer to your response to prior comment 22. Please expand the first bullet point and the third bullet on page 74 to fully describe the factors you considered in concluding that equity transactions and a valuation from 2009 were relevant in estimating fair value for stock options granted in 2012.***

Response: The Company has revised the Registration Statement on page 73 to expand the first and third bullet point in response to the Staff's comment.

12. ***We refer to your response to prior comment 23. Please expand your disclosure to describe why you believe the marketability discount and cost of capital assumptions are reasonable in your specific fact pattern. While we see that you have cited certain general and third party information in explaining the basis for the assumptions, the response does not describe how you determined that the final results are reasonable in your specific circumstances.***

Response: The Company advises the Staff that the Company’s Board of Directors (the “Board”) applied a discount rate that took into consideration the Company’s particular investment risk. The Board believes that the discount rate for the Company should reflect the Company’s opportunity cost of capital for debt and equity, with the discount rate reflecting a weighted average of those rates, calculated based on their relative contribution to the Company’s total capital. In calculating this discount rate for stock option grants made in January 2013, the Board reviewed the valuation prepared by Adams Capital, Inc. (“Adams”) as of December 31, 2012 (dated January 29, 2013). This report reviewed the overall capital structure of comparable companies and determined that a target capital structure of 85.0% equity and 15.0% debt was appropriate for the Company. The report calculated the Company’s weighted average cost of capital (“WACC”) as follows:

- **Cost of Equity** - In calculating the cost of equity, the report used a combination of rates, or the build-up method. The report determined a risk free return of 3.0% based upon a 30-year U.S. Treasury bond as published in the Federal Reserve Statistical Release. The report used a supply side equity risk premium of 6.1% using figures provided in Ibbotson SBBI 2012 Valuation Yearbook. The report used the size risk premium of 6.1%, (selecting market capitalization comparables between \$1.6 million and \$206.8 million). The report used the industry risk premium of 2.0% using the Company’s SIC code of 3674 (Semiconductors and related devices). Finally, the report referenced the growth forecast of the Company in comparison to its peers and the industry overall, and the Company’s lack of profitability. Based upon that analysis, the Adams report assigned a 10.0% company specific risk premium. Based on the factors above, the report determined the cost of equity to be 27.2% (i.e., the sum of the factors above).
- **Cost of Debt** - The cost of debt reflects the Company’s estimated cost to obtain long-term debt financing. The Adams report estimated the Company’s borrowing rate to be 6.4% using the Company’s outstanding debt and the after-tax cost of that debt using a blended tax rate of 39.0%, for a resulting rate of 3.9%.
- **Concluded WACC** - By using the determined 85%/15% equity to debt ratio and the cost of equity and cost of debt described above, the Adams report determined the WACC to be 23.7% (i.e., 27.2%*85.0% + 3.9%*15.0%), and then rounded to 24%.

After reviewing a draft of the Adams report, the Board adopted its calculation of WACC when granting stock options in a meeting held on January 18, 2013.

13. ***The consent from Adams Capital, Inc. refers to a report dated May 2, 2013. Tell us about the key assumptions and fair value determination from the May valuation. Also, tell us whether you have granted equity compensation after the date of that study and tell us the per share fair value used in valuing those grants, if any.***

Response: The methodology undertaken by Adams in their December 31, 2012 (dated January 29, 2013) and then March 31, 2013 (dated May 2, 2013) appraisals are nearly identical. From the December to March appraisals, Adams first took into account any change in the overall market conditions and valuations of comparable companies (i.e., their relative financial performance and stock price comparisons — using the same group of comparable companies). Adams then looked at the change, if any, in the financial aspects and operational aspects of the Company during the first quarter of 2013, which included a rise in revenue year over year but a decline in revenue since Q4 of 2012, along with an increase in book value. Applying the Q1 results to the valuation methods, Adams used the following assumptions in estimating the fair market value for the Company’s common stock:

<u>Assumption</u>	<u>December 31, 2012</u>	<u>March 31, 2013</u>
PWERM Enterprise Value	\$80.2 million	\$91.5 million
Discount Rate	24.0%	23.0%
Discount for lack of Marketability	30%	30%
Probability of an IPO	60%	75%

Adams determined the estimated fair value of the Company’s common stock, as of March 31, 2013 to be \$0.27 per share (an increase from \$0.25 per share as of December 31, 2012).

The Company granted stock options for 106,200 shares in April 2013 with an exercise price of \$0.30 per share, as described on page 74 of the Registration Statement. The exercise price for these stock options was based on the Board’s review of a draft of the Adams report providing a valuation as of March 31, 2013, and providing a fair market value of between \$0.27 and \$0.29 per share. The Board determined the exercise price for these stock options to be \$0.30 per share because the Adams report was not yet final and because the Board wanted to ensure that the exercise price was not below the fair market value set forth in the final Adams report. The final Adams report, dated May 2, 2013, provided that the fair market value per share of common stock was \$0.27 as of March 31, 2013. Other than the April 2013 grants disclosed in the Registration Statement, there has been no subsequent stock option grants.

[Long-lived assets, page 77](#)

14. ***We note your response to prior comment 21. We may have further comments after you file as an exhibit the consent of the appraiser mentioned in the second paragraph of this section.***

Response: The Company advises the Staff that no third-party appraisals were obtained regarding the valuation of its long-lived assets. The Company has revised the Registration Statement on page 77 to clarify that the Company performed the valuation of such long-lived assets.

Principal and Selling Stockholders, page 124

15. ***Your response to prior comment 30 appears to indicate that you intend that your CEO will be a 6% beneficial owner upon completion of the offering but your intend to include a beneficial ownership table in your prospectus that discloses his ownership to be less than 1.5% upon completion of this offering. It is unclear why you believe such disclosure is appropriate given Regulation S-K Item 403 and Rule 408. Please advise or revise.***

Response: The Company has revised the Registration Statement on page 125 to address the Staff's comment.

16. ***Please tell us why you have not included Shiu-Mei Lin Chou, Yaun-Chung Hsu, Wei-Chien Wu and Yuanpin Hsu in the table on page 125. We note that you disclose on page 122 that these investors hold five percent or more of a class of your capital stock.***

Response: The table on page 125 of Amendment No. 2 is based on the Company's common stock outstanding, on an as-converted basis assuming the conversion of all of the outstanding preferred stock. As a result, the Company did not include Shiu Mei Lin Chou, Yaun Chung Hsu and Wei Chien Wu (which shares are held jointly) and Yuanpin Hsu on the table on page 125 of Amendment No. 2 because their respective percentage ownership calculations would be 0.8464%, 0.2324% and 0.1807% (as of July 31, 2013).

Exhibit 23.3 and 24.4

17. ***When you file your registration statement via EDGAR, please include the consents of Ovum, Inc. and Adams Capital, Inc. that expressly state that Ovum and Adams consent to the quotation and summarization of their research included in the registration statement.***

Response: The Company advises the Staff that the Company has included the revised consents of the third-parties with the Registration Statement.

Please direct any questions or comments regarding this letter or the Registration Statement to me at (713) 425-8446 or frank.wu@dlapiper.com.

Sincerely,
DLA Piper LLP (US)

/s/ Frank Wu

Frank Wu

Partner

cc: Chi-Hsiang (Thompson) Lin, Applied Optoelectronics, Inc.
James L. Dunn, Jr., Applied Optoelectronics, Inc.
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