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May 21, 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.
Confidential Draft Registration Statement on Form S-1
Submitted April 4, 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 May 1, 2013 (the "**Staff Letter**") relating to the Company's Confidential Draft Registration Statement on Form S-1 (the "**Registration Statement**"). Additionally, on behalf of the Company, we are supplementally providing with this letter a binder 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 Comment Letter, the Company has revised the Registration Statement and is confidentially submitting a revised draft of the Registration Statement ("**Amendment No. 1**"), marked in accordance with Rule 310 of Regulation S-T. For the convenience of the Staff, we are providing by overnight delivery to the Staff a copy of this letter, four marked copies of Amendment No. 1 (against the Registration Statement confidentially submitted on April 4, 2013) and four copies of the Supplemental Materials.

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 Amendment No. 1.

Prospectus Summary, page 1

1. ***Please provide us support for your statements regarding your leadership throughout this prospectus, including statements regarding you being the second largest provider. Also, provide us support for your claims in:***

- ***the sentence that begins at the bottom of page 1 and continues on page 2,***
- ***the sentence that begins at the bottom of page 3 and continues on to page 4,***
- ***the last sentence of the first and fourth bullet points on page 76, and***
- ***the penultimate sentence of the fourth full bullet point on page 77,***

and ensure that your disclosure makes clear against whom you are comparing yourself.

Response: The Company is supplementally providing to the Staff the relevant portions of the industry data from Ovum, Inc. as cited in the Registration Statement and other information to support the Company's claims in the Registration Statement. Please refer to the materials attached as Annex A to the Supplemental Materials. In addition, the Company has made revisions to certain of these statements in the Registration Statement in response to the Staff's comments, as reflected in Amendment No. 1.

2. ***Please provide us support for the market and industry data that you cite in the section entitled "Overview" on page 1 and in the section entitled "Industry Background" on page 2. Include support for your statement about the "only economic way to deliver the desired bandwidth." Clearly mark the material you provide to identify the data you cite in your document, and tell us whether you commissioned any of the data disclosed in your prospectus other than the Ovum data mentioned on page 37.***

Response: The Company is supplementally providing to the Staff the relevant portions of the industry data from Akamai, Cisco, Crehan Research Inc., Infonetics and Ovum, Inc. as cited in the Registration Statement. Please refer to the materials attached as Annex B 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. Other than the Ovum report entitled CATV Access Infrastructure and Optics Supplier Landscape, no data was prepared for us or for use in the Registration Statement.

In addition, the Company advises the Staff that Akamai has released new industry data in April 2013, and the Company has included new statements from this industry data in Amendment No. 1.

3. ***Please tell us (1) what objective criteria you used to determine that the list of customers named in the first two full sentences on page 2 accurately represents your business and (2) whether you have identified each of the customers that satisfy these criteria. Do you derive a substantial portion of your revenue from each of the manufacturers other than Cisco? Do unnamed manufacturers contribute more revenue than any of the five manufacturers you name? Also tell us why you believe this level of detail is appropriate for a prospectus summary, and why you believe repeating this information on page 4 is appropriate for a summary.***

In addition, please tell us how you chose which companies to name in the first full bullet point on page 3 and how you are aware of what compatibility issues are important to them.

Response: The Company advises the Staff that the objective criteria used to determine the list of customers in the first full sentence on page 2 was based on the top five providers of equipment in the CATV market according to industry surveys, and each of these top five providers purchased products from the Company in 2012. All of the customers listed in the first and second sentences on page 2 are key customers of the Company. The Company determines a "key customer" as

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follows: (i) one that was material in total revenue in 2012 (i.e., in the top 25 customers ranked by revenue), (ii) one that had key research and development projects with the Company that are likely to lead to material revenue in 2013, or (iii) one that had indicated in their forecast/plans that they expected to become a material customer in terms of revenue in 2013. While the Company does not currently derive a substantial portion of its revenue from each and every key customer identified, they are key because of their respective position in the Company's target markets and because the Company either does derive or expects to derive a substantial portion of its revenue from them in 2013. While there are other customers from which the Company derived more revenue in 2012, those customers are not as key to the Company in the same sense as these market leaders in the CATV market. The Company advises the Staff that it no longer repeats those customers on page 4 of the Registration Statement.

The Company advises the Staff that the three companies identified in the first bullet on page 3 were chosen because they have each publically indicated, directly or indirectly, that they had adopted a "more open internet data center architecture." Furthermore, they are large internet data center operators, some of which have already purchased optical fiber components from the Company, which is a non-traditional equipment vendor in this market. As such, the Company has identified them as examples of the trend in the internet data center market because of (i) their leading positions, (ii) their public announcements of their intentions for a more open internet data center architecture and (iii) their purchasing patterns that support the assertion that they are more willing to work with a non-traditional optical vendors like the Company.

4. ***If you believe it is appropriate to highlight the results mentioned at the top of page 2, please highlight with at least equal prominence the magnitude of your losses in the periods mentioned and your accumulated deficit.***

Response: The Company has revised the Registration Statement on page 2 to address the Staff's comment.

5. ***With a view toward providing more specific information, please tell us when the "recent" shift mentioned in the third paragraph of your Overview began.***

Response: The Company advises the Staff that the Company believes that the ODM trend for major CATV equipment manufacturers began for the head-end equipment in 2005 and for the node-end equipment in 2009. The Company has revised the Registration Statement on page 1 to indicate the timing associated with this shift.

6. ***We note the amount of detail in your prospectus summary. We also note that you repeat much of this detail later in your prospectus. Please review the detail in your industry background, solutions, strength, and strategy sections of your prospectus summary to ensure that you have included only disclosure that is appropriate for a prospectus summary and not detail that overwhelms disclosure regarding the most significant aspects of the offering. Also, please tell us why you believe it is appropriate to highlight data in your prospectus summary and then, on page 37, tell investors not to place "undue weight" on the information you have chosen to highlight.***

Response: The Company has revised the Registration Statement on pages 1 through 6 to reduce the length of the prospectus summary in response to the Staff's comment. The Company has also revised the Registration Statement on page 38 in response to the Staff's comment.

7. ***If a substantial portion of your business is attributable to a single country that creates risks like those you mention beginning on page 30, please prominently highlight in your prospectus summary the extent of your business in that country, including the portion of your operations and assets in that country and the extent of your revenue from that country. Ensure that this disclosure is highlighted clearly and not overwhelmed by detail that is inappropriate for a prospectus summary.***

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Response: The Company has revised the Registration Statement on page 5 to address the Staff's comment.

8. ***Please reconcile the amount shown as “Total stockholders’ equity (deficit)” on page 12 with the corresponding amount shown on your balance sheet on page F-3.***

Response: The Company has revised the Registration Statement on page 12 to address the Staff’s comment.

9. ***We note that you include non-recurring consultant fee as part of non-GAAP adjustments shown on page 11. Please tell us how you considered the guidance from Item 10(e)(1)(ii)(B) of Regulation S-K in concluding that these charges are non-recurring.***

Response: The Company advises the Staff that although non-recurring consultant fees appear in all three years reported in the Registration Statement, the charges for each year during the three year period presented arose from different parties in different years for different services and do not represent the recurrence of consulting fees paid to the same entity within any two year period. None of these charges occurred in the periods prior to 2009 and will not recur after May 31, 2013, as the agreements with each applicable entity will expire by that time. The charges are isolated in nature and are not expected to recur after May 31, 2013.

We are dependent on our key customers, page 13

10. ***Please tell us (1) the extent of your revenue from each of Arris Group and Motorola and (2) whether one of those companies primarily uses products from a competitor of yours.***

Response: The Company advises the Staff that its revenue from Arris Group and Motorola in 2012 were not material to the Company’s financial results. One of the Company’s competitors supplies similar services for head-end optical transmitters (but not node-end optical equipment) to Motorola. The Company believes that Arris produces most of its products internally and is not therefore supplied by the Company’s competitors.

We depend on key personnel, page 20

11. ***In an appropriately captioned risk factor, please explain the anti-takeover effect of the bank approval required for a change in your executive officers.***

Response: The Company has revised the Registration Statement on page 35 to address the Staff’s comment.

We may be involved in intellectual property disputes, page 26

12. ***Please clarify why you “cannot be certain that [y]our products would not be found infringing the intellectual property rights of others.” Have you not researched others’ intellectual property rights?***

The Company advises the Staff that the Company has policies in place designed to reduce the risk of infringement of intellectual property rights of others and has conducted some review of other companies’ patents in the past; however, the Company has not engaged in an exhaustive search and analysis of all patents in the Company’s industry.

If we fail to maintain effective internal control, page 27

13. ***Please clarify why there can be no assurance that your internal controls will be able to avoid accounting errors as you state in the last paragraph of this risk factor. Are you not designing internal controls to provide that assurance?***

Response: The Company advises the Staff that the Company has designed and implemented internal controls that it believes will provide management reasonable assurances with respect to the timely collection, evaluation and disclosure of information relating to the Company that would potentially be subject to disclosure under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. However, the Company’s internal controls cannot guarantee that no accounting errors exist or that all accounting errors, no matter how immaterial, will be detected because a control system, no matter how well designed and operated, can provide only reasonable, but not absolute assurance that the control system’s objectives will be met.

As an “emerging growth company” within the meaning of the Securities Act, page 36

14. ***Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.***

Response: The Company is supplementally providing to the Staff the materials that the Company presented to certain potential investors who were qualified institutional buyers or institutional accredited investors at the Raymond James Institutional Investor Conference held on March 4, 2013 in reliance on Section 5(d) of the Securities Act. Please refer to the materials attached as Annex C to the Supplemental Materials. No research reports about the Company have been published or distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 by any broker or dealer that is participating or will participate in the Company’s offering.

Special Note Regarding Forward Looking Statements and Industry Data, page 37

15. ***Please file as an exhibit to this registration statement the consent of Ovum, Inc. that expressly states that Ovum consents to the quotation and summarization of its research included in your registration statement.***

Response: With respect to the Ovum, Inc. studies and reports, the Company respectfully submits that a consent is not required under Rule 436 because the information included in the Registration Statement is not a report or opinion of an expert or counsel requiring a consent pursuant to Rule 436. The Company submits that the related information contained in the prospectus is not based on an expert study or report because it is based on the results of surveys of market data conducted and forecasts prepared by Ovum, Inc. and reflects the market research results, rather than the opinion or judgment of an expert.

Use of Proceeds, page 38

16. ***Please tell us what portion of the proceeds will be used to repay debt and when the debt was incurred. Also disclose the portion of the proceeds that you intend to use for each of the purposes mentioned in the second sentence of the second paragraph. 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.***

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Response: The Company has revised the Registration Statement on pages 7 and 39 to address the Staff's comment. The Company advises the Staff that it intends to use the net proceeds from the offering for working capital and other general corporate purposes. Accordingly, the Company's management will have broad discretion in the application of the Company's net proceeds from the offering, and investors will be relying on management's judgment regarding the application of the net proceeds. The Company may also use a portion of its net proceeds to repay outstanding indebtedness, which currently has interest rates ranging from 4.15% to 7.54% and maturity dates ranging from May 2013 to November 2014, but the Company currently has no commitments or specific plans to repay any particular indebtedness in advance of its maturity date.

Capitalization, page 39

17. ***Tell us, with a view toward disclosure in your filing, whether there are any contingencies associated with the assumed conversion of the preferred stock upon consummation of the offering. For instance, tell us whether there are contingencies related to the size of the offering, the offering price or the valuation assigned to the company.***

Response: The Company has revised the Registration Statement on page 40 to address the Staff's comment. As reflected in Amendment No. 1, the terms of the Company's preferred stock provide that its preferred stock automatically converts immediately prior to the closing of the Company's initial firmly underwritten public offering under an effective registration statement covering the offering and sale of common stock on a firm commitment basis for proceeds of at least \$30 million (before deduction of underwriting costs, commissions and expenses).

18. ***The balance sheet on page F-3 identifies the preferred stock as "redeemable." Please revise the capitalization table, the summary data on page 12 and any other similar disclosures to consistently identify the preferred stock as "redeemable."***

Response: The Company advises the Staff that only its Series A preferred stock is redeemable, and such Series A preferred stock is only redeemable at the option of the Company. The Company has revised the Registration Statement to reflect the foregoing.

Dilution, page 41

19. ***Please revise to begin with actual net tangible book value per share and separately show the impact of the assumed conversion of preferred stock in arriving at pro forma net tangible book value per share.***

Response: The Company has revised the Registration Statement on page 43 to address the Staff's comment.

Management's Discussion and Analysis, page 45

20. ***We note your disclosure on page 46 regarding the significance of new design wins on your performance. Please provide us your analysis of why you believe Regulation S-K Item 303 and Rule 408 do not require that you disclose the number of new design wins in each period presented.***

Response: The Company advises the Staff that the number of new design wins is not correlated directly with past or future revenue. Design wins may generate vastly different amounts of future revenue, ranging from no or very little revenue to several millions of dollars in revenue in future years. The Company believes that the fact that it obtains design wins from key customers is a useful qualitative tool to determine the effectiveness of its sales efforts and its R&D strategy, but inclusion of actual number of design wins in a particular period of time in the Management's Discussion and Analysis would be either irrelevant or potentially misleading since the actual

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number of wins does not correlate directly to the level of future revenue generation. Furthermore, the Company's definition of a design win may vary materially from the definition used by its competitors, and therefore comparisons between the Company and its competitors on this numerical basis would not be useful. Regulation S-K Item 303 and Rule 408 generally require disclosure of relevant numerical data that would enable investors to understand the results of its operations or information that would be necessary to make required statements in a registration statement not misleading in the light of the circumstances in which they are made. Since the number of design wins cannot be used to explain or predict the results of the Company's operations, the Company does not believe that Regulation S-K Item 303 and Rule 408 require the disclosure of its design win data or that such disclosure would be appropriate.

Revenue, page 47

21. ***Please provide us support for your statement in the last sentence on page 47 regarding your competitors.***

Response: The Company advises the Staff that the Company is supplementally providing to the Staff the support for its statement regarding its competitors. Please refer to the materials attached as Annex D to the Supplemental Materials.

Comparison of Years Ended December 31, 2012 and 2011, page 54

22. *Please expand to disclose the dollar amount of sales in each of your target end-markets, reconciled to total revenues for each of the periods discussed in MD&A. If material, please also quantify and describe the impact of changes in prices and changes in exchange rates on revenues. Also, address the underlying reasons for the \$1.2 million decrease in sales in other markets in 2012, including FTTH, where you anticipate revenues, as a percentage, will increase in the future.*

Response: The Company has revised the Registration Statement on page 54 to address the Staff's comment. The Company advises the Staff that the Company is not able to quantify the impact of price changes within those markets without undue effort or expense. The Company does not believe that changes in exchange rates have had a material impact upon revenues, because the Company's products are manufactured in three different locations and are denominated mostly in US currency, especially within and among its three target end-markets.

Critical Accounting Policies and Estimates, page 66

Revenue recognition, page 67

23. *Please revise to describe the nature, terms and conditions of sales through indirect channels referred to on page 85. Separately describe your revenue practices for those indirect channel sales. Also, clarify whether such sales are recorded on a gross or net basis and describe the factors you considered in arriving at your determination.*

Response: The Company has revised the Registration Statement on page 72 to address the Staff's comment.

24. *With respect to direct sales, if material to an understanding of your revenue practices, please expand to also address any post shipment obligations, return policies, refund rights or customer acceptance provisions and clarify how these matters are considered in your revenue recognition practices.*

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Response: The Company has revised the Registration Statement on pages 72 and 73 to address the Staff's comment.

Stock-based compensation expense, page 67

25. *Please file as exhibits the consents of the appraisers mentioned in the first paragraph of this section and in the second paragraph on page 69 as required by Rule 436.*

Response: The Company advises the Staff that the Company has not yet approached its appraisers regarding the applicable consents because the Company has not yet publicly filed the Registration Statement.

26. *Please tell us whether you have had any preliminary pricing discussions with your underwriters. If so, please tell us about the substance of those discussions and tell us whether those discussions were considered in determining the estimated fair value of your common stock.*

The Company advises the Staff that the Company has engaged in preliminary pricing discussions with the Company's underwriters with respect to a wide range of potential valuations. However, due to the current volatility of operating performance of the publicly traded entities in the Company's industry and the corresponding variation and range of valuation metrics for such companies, and the varied performance of recently priced initial public offerings, the Company has not yet engaged in any detailed discussions regarding IPO pricing with its underwriters. Accordingly, the Company did not take into account such discussions in determining the estimated fair value of its common stock.

27. *Once pricing information is available, please revise to provide a specific discussion of each significant factor contributing to any significant difference between the estimated fair value of your common stock and the estimated offering price (or pricing range) for the 12 months prior to the contemplated offering. Please also disclose the aggregate intrinsic value of all outstanding options based on the midpoint of the estimated offering price range. Note that we are deferring final evaluation of share-based compensation until the estimated offering price is specified, and we may have further comments in that regard when you file an amendment containing that information.*

Response: The Company advises the Staff that when pricing information is available, the Company will respond to provide a discussion of any significant factor contributing to any significant difference between the estimated fair value of the Company's common stock and the estimated offering price (or pricing range) for the 12 months prior to the contemplated offering, if any.

28. *With respect to the valuation performed in January 2013, please expand to describe the key assumptions that form the basis for your determination that the fair value of a share of your common stock was \$.25 in January 2013.*

Response: The Company has revised page 74 of the Registration Statement to respond to the Staff's comment.

29. *For the twelve months ended December 31, 2012, please expand for the following:*

- Provide a table disclosing for each grant: the date of grant, the number of instruments granted, the exercise price, the fair value of the underlying stock, and the fair value of the instruments granted. This information may be summarized by month.*

Response: The Company has revised the Registration Statement on pages 73 and 74 to address the Staff's comment.

- **Provide a description of the methods and assumptions used in estimating the fair value of both the underlying stock and the instruments granted at each grant date. Describe the reasons for any significant changes in methods or assumptions during the year. Also, clarify whether the valuations were contemporaneous or retrospective and describe whether the valuations were performed by related parties.**

Response: The Company has revised the Registration Statement on pages 73 and 74 to address the Staff's comment.

- **Please update the disclosures for any significant grants after December 31, 2012.**

Response: The Company has revised the Registration Statement on pages 73, 74, 120, and II-3 to address the Staff's comment.

- 30. We refer to the five year table of stock-based compensation on page 44. We note that while your revenues have significantly increased and your losses have significantly decreased over the past five years, expense recognized for stock-based compensation has steadily decreased over that period. With emphasis on the most recent three years, please provide us an analysis that fully explains the reasons for the steady decrease in the expense for stock-based compensation and that explains why these decreases are reasonable in light of the growth of your business during the periods presented in your filing. In that regard, describe to us:**

- **Any changes in methods or models applied over the period. If so, describe the reasons and the related impact on stock-based compensation.**
- **Any changes in key assumptions or the methods used in arriving at those assumptions over the period. If so, describe the reasons and the related impact on stock-based compensation.**

Response:

The Company advises the Staff that the fair market value of its common stock has been historically determined by its board of directors, and beginning in 2007, with the assistance of independent valuation specialists. In 2007, the Company's common stock was valued between \$1.60 and \$2.00 per share. Then in 2008, the global recession caused a dramatic downturn in the Company's target market and customer base, causing a flattening in revenue, increasing losses and the need to raise capital. In 2009, the market value was determined to be only \$0.04 per share.

With a recovery in global market conditions, rising revenue and a possible return to profitability, the Company was able to sell preferred stock in 2012 for \$0.35 per share. The Company obtained an appraisal in 2012 that took into account its recent preferred stock sales, among other factors, and the Company's board of directors determined the fair market value of the Company's common stock price to be \$0.25 per share. Independent stock valuations were performed on the following dates:

Valuation Date	Price per Share
March 31, 2007	\$ 1.68
September 30, 2007	\$ 1.60
December 31, 2007	\$ 2.00
March 31, 2009	\$ 0.04
December 31, 2012	\$ 0.25

The amount of stock based compensation expense is higher in 2007 and 2008 when the Company's indicated price per share was much higher. The Company recognized stock compensation expense based upon the vesting (which is typically over a four-year period) of those higher-priced options. The Company's stock based compensation expense is lower from 2009 to 2012 both because the vesting of those higher-priced options was nearing an end and because the vesting of options began when the Company's indicated price per share was much lower than those 2007 prices.

The following table summarizes the change in stock price and associated expense over the relevant period of time:

Expense Year	Grant Year 2004	2005	2006	2007	2008	2009	2010	2011	2012	Grand Total	As Reported
2008 FY	10,859	10,201	93,600	608,727	369,870					1,093,257	\$ 1,033,000
2009 FY		4,243	71,775	326,094	487,591	24,891				914,594	\$ 913,000
2010 FY			22,581	340,670	395,541	8,938	3,751			771,481	\$ 780,000
2011 FY				156,224	373,073	4,821	13,025	9,105		556,249	\$ 563,000
2012 FY					38,139	406	11,652	11,118	78,574	139,890	\$ 161,000
Grand Total	10,859	14,444	187,956	1,431,716	1,664,214	39,056	28,429	20,224	78,574	3,475,472	\$ 3,450,000

The key assumptions used in arriving at the fair value of the Company's common stock and its resulting stock-based compensation expense have remained substantially the same over the periods presented.

Industry Background, page 72

- 31. Please tell us the extent to which your products are in the Kansas City network that you mention in the third paragraph.**

Response: The Company advises the Staff that to its knowledge, the Company's products are not currently used in the Kansas City network described in paragraph 3 on page 79. This paragraph generally describes the background of the industry in which the Company operates. The reference to the Kansas City network and other specific initiatives mentioned in this section are illustrative of the types of new initiatives and technologies that are driving the overall FTTH market. The last sentence of paragraph 3 under the heading "Industry Background" mentions that the Kansas City project may prompt other service providers to accelerate their investment in optical technology, and this trend of multiple service providers investing in their networks is one trend from which the Company hopes to benefit.

Continue to penetrate FTTH, page 78

32. ***In an appropriate section of your document, please balance your disclosure regarding the advantages of WDM-PON technology with any material challenges of the technology. Also clarify whether the WDM-PON technology is your proprietary property.***

Response: The Company advises the Staff that the Company believes that the challenges of WDM-PON technology are described on Page 86 under the bullet "Optical hybrid-integration technology." The Company has revised the Registration Statement on page 86 to balance the challenges and advantages and to provide clarification regarding whether WDM-PON is the Company's proprietary technology.

Differentiated semiconductor laser manufacturing, page 78

33. ***Please balance your disclosure of the advantages of the MBE process with any material disadvantages.***

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Response: The Company has revised the Registration Statement on page 86 to address the Staff's comment.

Our Products, page 80

34. ***Please tell us the criteria you used to determine which products to highlight on pages 81-83.***

Response: The Company advises the Staff that the products were selected based on their contribution to the Company's revenue in each of its three end markets (CATV, data center and FTTH). The products depicted represent a significant portion of the Company's revenue in 2012. They also illustrate the types of products the Company offers and various attributes of the products depicted.

35. ***Please revise so that the terms you use here and throughout your prospectus are understandable. For example, we note your use of MSO, OEM, and ODM.***

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

36. ***We note your disclosure on page 47 that your results are heavily dependent on your product mix during a period. We note other discussions of the effect of product mix in your document on pages 17, 55 and 59. Please provide the three-year revenue history by class of similar products or services as required by Regulation S-K Item 101(c)(1)(i) so that investors can see the changes in your product mix during those periods.***

Response: The Company advises the Staff that, although the Company groups its products by the CATV, internet data center, FTTH and other markets for illustrative purposes on pages 88 through 90 of the Registration Statement, and some products have similarities within a market, there are insufficient similarities among those products to permit the Company to provide a revenue history by class or other similarity that would be meaningful to describe product mix to investors. Within each of its markets, the Company has products that provide varying gross margin percentages, and resulting gross profit percentages. As the percentage of the lesser margin products rises and falls, within a quarter, the Company's overall gross margin is impacted from quarter to quarter.

Patents, page 84

37. ***Please disclose the duration of your material patents.***

Response: The Company has revised the Registration Statement on page 91 to address the Staff's comment.

38. ***In an appropriate section of your document, please disclose the duration of the licenses that you mention in the last risk factor on page 29. Also explain the portion of your business affected by those licenses.***

Response: The Company advises the Staff that while there are import laws and regulations affecting the importation and sale of its products, there are no specific licenses that are required. The Company has revised the Registration Statement on page 29 to address the Staff's comment.

Executive Officers and Directors, page 89

39. ***For each director, please discuss clearly the specific experience, qualifications, attributes or skills that led to the conclusion that the person should serve as a director for the registrant at this time in light of the registrant's business and structure.***

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Response: The Company has revised the Registration Statement on pages 96 through 100 to address the Staff's comment.

Director Compensation, page 93

40. ***Please provide us your analysis of whether Regulation S-K Item 402(r)(3) or Item 404(a) require disclosure regarding the transactions mentioned in the first two paragraphs on page F-32.***

Response: The Company advises the Staff that neither of the transactions now mentioned in the second and third paragraphs on page F-35 are required to be disclosed under S-K Item 402(r)(3) or Item 404(a). With respect to the first transaction, a consulting agreement was entered between the Company and one of its shareholders. The initial draft of the Registration Statement incorrectly stated that such shareholder was also a director. The first transaction did not involve an agreement with one of the Company's directors. As such, no disclosure is required under S-K Item 402(r)(3) or Item 404(a) because such shareholder was neither an officer, director nor a holder of five percent or more of the Company's capital stock (on an as-converted basis). The Company has revised the disclosure on page F-35 to correctly reflect the relationship of such shareholder with the Company. With respect to the second transaction disclosed on page F-35, the Company respectfully submits that disclosure under S-K Item 402(r)

(3) is not required because the services performed under the consulting agreements were unrelated to the directors' service as a director. Furthermore, such services were not directly performed by such directors. Rather, they were performed by entities affiliated with such directors. Additionally, the Company respectfully submits that disclosure under S-K Item 404(a) is not required because the amounts under each of the consulting agreements did not exceed the \$120,000 threshold amount.

Outstanding Equity Awards, page 99

41. *Please provide the footnotes required by Instruction 2 to Regulation S-K Item 402(p)(2).*

Response: The Company has revised the Registration Statement on pages 107 through 109 to address the Staff's comment.

Agreements with Executive Officers, page 100

42. *Please disclose the material terms of your agreements with your named executive officers. For example, we note section 4.B(iv) of exhibit 10.30.*

Response: The Company has revised the Registration Statement on pages 109 and 110 to address the Staff's comment. The Company has also filed Exhibit 10.29.1 (Amended and Restated Employment Agreement Regarding Change of Control or Separation of Service for Chih-Hsiang (Thompson) Lin), Exhibit 10.32 (employment agreement for James L. Dunn, Jr.) and Exhibit 10.33 (employment agreement for Hung-Lung (Fred) Chang).

43. *Given your disclosure in the second clause (iii) in the second paragraph of this section, it appears the executives are entitled to separation payments upon almost any termination event. If so, please add an appropriate risk factor.*

Response: The Company has revised the Registration Statement on page 36 to address the Staff's comment.

Various Incentive Share Plans, page 104

44. *Given the last sentence of the penultimate paragraph on page 109 and the plans you filed as exhibits, it appears that vesting occurs when you report a material contract under*

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Item 1.01 of Form 8-K. We note for example section 2.4 of exhibit 10.8. Please add an appropriate risk factor.

Response: The Company has revised the Registration Statement on page 35 to address the Staff's comment.

Loans from Stockholders, page 107

45. *Please show us with specificity how you reconcile the disclosure in this section about stockholder notes with the information on pages F-3 and F-7 and in Note S on page F-32.*

Response: The Company advises the Staff that the information on pages F-3, F-7 and F-35 reflects all loan transactions from shareholders. On the other hand, the disclosures set forth on pages 117 and 118 reflect only loan transactions made by related persons (for example, any director, executive officer and holder of five percent or more of the Company's capital stock (on an as-converted basis)). Of the note transactions, \$2.6 million were transacted with related persons, and an additional \$0.6 million were with shareholders not defined as related persons. The Company further advises the Staff that although Note S is entitled "Related Party Transactions," the Company believes that the Accounting Standards Codification definition for "related parties" would include all of the shareholders who have entered into loan transactions with the Company.

Private Placement of Securities, page 108

46. *Please disclose in this section the re-pricing mentioned in the penultimate paragraph on page II-2 and the related transactions mentioned in last paragraph on page II-3. Also, clarify the number of shares purchased by each related person.*

Response: The Company has revised the Registration Statement on pages 118 and 119 to address the Staff's comment.

Description of Capital Stock, page 113

47. *Your disclosure may not be qualified by reference to state law. Please revise accordingly.*

Response: The Company has revised the Registration Statement on page 124 to address the Staff's comment.

48. *Refer to the warrants to purchase preferred stock that you mention on page 7. Please disclose how the rights of your common stockholders are or may be limited or qualified by the preferred stock that those warrant holders can acquire.*

Response: The Company advises that Staff that all of its issued and outstanding warrants to purchase its preferred stock expire upon the closing of the offering, other than warrants to purchase 650,000 shares of its Series F preferred stock and 200,000 shares of its Series G preferred stock. However, under the terms of the warrants which do not expire upon the closing of the offering, such warrants shall automatically adjust to be exercisable for shares of common stock instead of preferred stock. The Company has revised the Registration Statement on page 125 to reflect the foregoing.

Common Stock, page 113

49. *With a view toward clarification of the last sentence of this section, please tell us whether exhibit 3.2 will provide that a majority of your outstanding shares are required for a director to be elected.*

Response: The Company advises the Staff that Exhibit 3.4 provides that the election of directors shall be determined by its stockholders by a plurality of the votes cast by the stockholders entitled to vote on such election. The Company has revised the Registration Statement on page 124 to address the Staff's comment.

Material U.S. Federal Tax Considerations for Non-U.S. Holders, page 121

50. *You may not disclaim responsibility for your disclosure. Please revise the first and second sentences of the last paragraph on page 124 accordingly. Also, tell us about the proposed changes mentioned in the last sentence of this section.*

Response: The Company advises the Staff that the Company has revised the disclosure on page 135 to address the Staff's comment.

Relationships, page 128

51. *Please provide more specific information regarding the transactions for which the underwriters "have received" compensation.*

Response: The Company advises the Staff that no such compensation has been received by the underwriters. The Company has revised the Registration Statement on page 139 to reflect the foregoing.

Financial Statements, page F-1

52. *Please update the financial statements when required by Rule 3-12 of Regulation S-X.*

Response: The Company advises the Staff that Amendment No. 1 includes unaudited financial statements for the period ended March 31, 2013 and that the Company will further update its financial statements if required under Rule 3-12 of Regulation S-X.

Consolidated Balance Sheets, page F-3

53. *Tell us why you believe it is appropriate to classify the redeemable preferred stock in permanent equity on your balance sheet. In that regard, please:*

· *Fully describe to us the terms and conditions of redemption. Please also describe those terms and conditions in financial statement Note N.*

Response: The Company has revised the Registration Statement on pages F-31 and F-32 to address the Staff's comment.

· *Tell us how inclusion of the redeemable preferred stock in permanent equity is appropriate under the guidance from FASB ASC 480-10-S50, -S99-1, S99-2 and S99-3.*

Response: The Company advises the Staff that the Series A preferred stock is the only preferred stock that is redeemable. The right of redemption is at the sole discretion of the board of directors. While certain holders of the Company's Series A preferred stock are represented on the Company's board of directors, they represent a minority of the board of directors and therefore do not control the redemption.

Consolidated Statements of Operations, page F-4

54. *Tell us why it is appropriate under the provisions of FASB Codification Topic 260 to assume conversion of the preferred shares in the determination of basic loss per share. In that regard, it appears that the assumed conversion of the preferred shares is anti-dilutive.*

Response: The Company notes that Topic 260 requires the exclusion of convertible preferred stock if its inclusion in EPS would be anti-dilutive. The Company has six series of preferred stock (A, C, D, E, F and G) outstanding, and all of the Company's preferred stock is required to be converted to common stock upon the consummation of an IPO that provides at least \$30 million in gross proceeds. Therefore, in the Company's earnings per share ("EPS") presentation, the Company assumed that the offering would provide at least \$30 million in gross proceeds and that all of the preferred stock would automatically convert into common stock. While the Company's preferred stock has the right to participate in the Company's earnings and dividends, there is no contractual obligation for the preferred stockholders to share in the Company's losses. Therefore, the preferred stock should not be included in loss periods, as their effect is anti-dilutive under Topic 260. Based on the foregoing and Topic 260, the Company has revised the Registration Statement on page F-16 to address the Staff's comment.

55. *As a related matter, if conversion is certain to occur at the consummation of the offering, you may alternatively elect to present pro forma earnings per share assuming conversion of the preferred shares for the most recent year end and subsequent interim period. The notes to financial statements should describe the pro forma presentation and reasons for its inclusion in your filing.*

Response: The Company has revised the Registration Statement on page 9, 45, F-4, and Note C on pages F-15 and F-16 to include pro forma earnings per share that assumes conversion of the shares of preferred stock for only the most recent year and subsequent interim period in response to the Staff's comment.

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

Use of Estimates, page F-8

56. *In light of the subjectivity and extensive estimation necessary to measure the fair value of your privately held equity and related equity compensation, tell us why stock compensation is not referred to in your “Use of Estimates” disclosure.*

Response: The Company has revised the Registration Statement on page F-9 to address the Staff’s comment.

Concentration of Credit Risk and Significant Customers, page F-9

57. *Tell us how your disclosure about significant customers provides the information content required by FASB ASC 280-10-50-42. Under the cited guidance, if revenues from transactions with a single external customer amount to 10 percent or more of a public entity’s revenues, the public entity shall disclose that fact, the total amount of revenues from each such customer.*

Response: The Company has revised the Registration Statement on page F-10 to address the Staff’s comment.

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Inventories, page F-10

58. *You disclose that you provide an “allowance” or “reserve” for the value of excess and obsolete inventories. With a view toward clarified disclosure, please tell us how your accounting policy considers the guidance from SAB Topic 5-BB and FASB ASC 330-10-35-14. Under the cited guidance, in the case of goods which have been written down below cost at the close of a fiscal year, such reduced amount is considered the cost for subsequent accounting purposes that cannot later be marked up based on changes in underlying facts and circumstances.*

Response: The Company advises the Staff that when the Company provides for an “allowance” for the inventory, it is a permanent write-off for that amount and results in reduced basis in the inventory. The Company has revised the Registration Statement on page F-11 to address the Staff’s comment.

Note G—Fair Value of Financial Instruments, page F-17

59. *Tell us why it is appropriate to classify notes receivable as level 1 in the fair value hierarchy. Explain how your determination considers the guidance from FASB ASC 820-10-35.*

Response: The Company advises the Staff that it has further considered the guidance and the substance of the receivable and concluded that the receivable is more appropriately classified as level 2. The Company has revised the Registration Statement on page F-19 to address the Staff’s comment. The Company also notes that substantially all of the receivable was paid in the first quarter of 2013 as reflected in the March 31, 2013 balance sheet.

Note H—Notes Payable and Long-Term Debt, page F-18

60. *Please expand Note H to clarify how the current portion of debt was determined. We note the disclosure in Note T that a portion of a line of credit was extended subsequent to year end.*

Response: The Company advises the Staff that the current portion of long-term debt was determined as the amount payable within one year of the balance sheet date (i.e., December 31, 2012). Note T was a subsequent event in 2013. The Company has revised the Registration Statement on page F-20 to address the Staff’s comment.

61. *Please disclose whether you were in compliance with debt covenants at December 31, 2012 and describe any instances of non-compliance.*

Response: The Company has revised the Registration Statement on page F-21 to address the Staff’s comment.

62. *Please revise to disclose how you accounted for the interest rate swap and the basis in GAAP for the accounting applied.*

Response: The Company has revised the Registration Statement on page F-21 to address the Staff’s comment.

63. *Please disclose the type of stock underlying the warrants issued to the Bank. Also, disclose the valuation assumptions, the grant date fair value and the expense recognized in each year presented. Clarify whether any of the warrants have been exercised, and if so, when exercise occurred.*

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Response: The Company has revised the Registration Statement on page F-21 to address the Staff’s comment.

Note I—Short-term Loans with Shareholders, page F-20

64. *Please disclose how you valued and accounted for the preferred stock warrants granted in connection with the borrowings from shareholders. Disclose the valuation model, assumptions, the grant date fair value and how fair value of the warrants was recognized in your financial statements, initially and over the life of the debt.*

Response: The Company has revised the Registration Statement on page F-22 to address the Staff’s comment.

Note L—Income Taxes, page F-21

65. *Please disclose the domestic and foreign components of your pre-tax accounting income. Refer to Rule 4-08(h) of Regulation S-X.*

Response: The Company has revised the Registration Statement on page F-24 to address the Staff's comment.

66. ***In the rate reconciliation table, tell us the components of "other, net" in 2012.***

Response: The Company advises the Staff that the components of "other, net" in 2012 consist of non-qualified stock options.

67. ***With respect to the tax incentives in the PRC, tell us how your disclosure considers the guidance from SAB Topic 11-C. In that regard, if you have losses in foreign jurisdictions, such as the PRC, please disclose the amounts of any tax loss carry-forwards and the lives of those carry-forwards.***

Response: The Company notes for the Staff that SAB Topic 11-C requires disclosure of NOL's and tax incentives in the PRC. The Company has disclosed in the Registration Statement on page F-25 that the Company's China subsidiary was granted a 5-year special tax holiday that expired in 2012. This tax holiday offered a 100% tax abatement in the first two years and a 50% tax abatement in the subsequent three years, all of which ended in 2012. The Company has revised its Registration Statement on page F-25 to discuss the Company's China net operating loss carry forward and the expiration of such operating loss carry forward.

68. ***Tell us why you have not provided disclosure about uncertain tax positions pursuant to FASB Codification Topic 740.***

Response: The Company advises the Staff that there were no uncertain tax positions as part of the tax provision calculations. The Company has revised the Registration Statement on pages F-14 and F-25 to address the Staff's comment.

Note M—Stock-Based Compensation, page F-23

69. ***With respect to your volatility assumption, tell us how you selected peer group companies and explain why you believe your selections are appropriate. Please refer to FASB ASC 718-10-55-25 and SAB Topic 14D.***

Response:

The following peer group companies were referenced with respect to the Company's volatility assumption:

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<u>Company Name</u>	<u>Stock ticker symbol</u>	<u>Date of IPO</u>	<u>Average Volatility</u>
Opnext, Inc.	OPXT	2/16/2007	88%
IPG Photonics Corp	IPGP	12/13/2006	56%
Infinera Corp	INFN	7/7/2007	68%
Acme Packet	APKT	10/13/2006	61%

These companies were selected because they are in the same or related industry, are similar in age and stage of development, are of a similar size (in terms of revenue and asset base) and issue instruments with similar terms (employee stock options). As further information, Opnext, Inc. was acquired by Oclaro in July 2012.

3. Warrants, page F-29

70. ***Please revise to describe all material terms and conditions of the warrants, including but not limited to, vesting provisions, the terms and mechanics of cashless exercise and any contractual circumstances that could lead to changes in conversion or exercise prices or the number of equity instruments to be issued upon conversion or exercise. Refer to FASB ASC 815-40 and 505-10.***

Response: The Company has revised the Registration Statement on page F-32 to address the Staff's comment.

71. ***Disclose the assumptions used to value the warrants under the Black-Scholes option pricing model. Also, disclose the grant date fair value and the expense recognized in each year presented.***

Response: The Company has revised the Registration Statement on pages F-31 and F-32 to address the Staff's comment.

72. ***With respect to warrants on redeemable preferred stock, tell us how your accounting considers the guidance from FASB ASC 480-10-25-8 through 25-12 and FASB ASC 480-10-55-33. Explain to us how you determined that the warrants on redeemable preferred stock are not liabilities for accounting purposes.***

Response: The Company advises the Staff that under ASC 480-10-55-33, warrants for both puttable redeemable shares and mandatorily redeemable shares are analyzed the same way and are properly characterized as liabilities. However, the Company's Series A preferred stock is the only preferred stock that has a redemption provision, and this provision is discretionary (neither puttable nor mandatory). Likewise, the outstanding warrants are exercisable only for Series F preferred stock and Series G preferred stock, which do not have a redemption provision. Therefore, the Company did not classify these warrants as liabilities for accounting purposes.

Note O—Segment and Geographic Information, page F-29

73. ***We see that you manufacture products for three end markets and that your Chief Executive Officer receives information about product revenues in the financial information he reviews. Tell us why the notes to financial statements do not present disclosure of product line revenues pursuant to FASB ASC 280-10-50-40.***

Response: The Company has revised the Registration Statement on page F-33 to address the Staff's comment.

74. *We note that you present enterprise-wide geographic disclosure about revenues based on the location of the particular manufacturing plant. Tell us the rationale for your determination that this presentation is a complete and meaningful application of the guidance from FASB ASC 280-10-50-41a. In that regard:*

- *Tell us how you have disclosed total revenues from all domestic U.S. customers, and;*
- *Describe why you believe that disclosure based on the location of your non-U.S. customers would not be more meaningful.*

Response: The Company advises the Staff that the Company manufactures certain products at certain locations, and the revenue from those geographic locations can be easily allocated by geography for presentation. The Company has not characterized or grouped revenue by "U.S. customers" because the determination of what might be characterized as a "U.S. customer" would cause an undue burden and expense for the Company. This is because the Company's customers (who might have U.S. operations) also have global operations in multiple countries, and also often serve their end customers on a global basis. Because the Company drop ships goods from various geographic locations through orders from multiple locations within a single "customer group", the Company is often unable to attribute easily revenue to a single "U.S. customer". Furthermore, within each of the Company's so-called US customer base, the Company has multiple "sub-customers", from which there is no easy way to segregate to a single "U.S. domestic" customer grouping or class. As an example, the Company has single U.S. customers that have up to 10 different billing locations and up to 20 different shipping locations (within and outside of the U.S.). So the Company believes that the determination of what should be characterized as a "U.S. customer" and then tracking the associated revenue just from "U.S. sales" would be impracticable and not meaningful to investors.

Recent Sales of Unregistered Securities, page II-3

75. *Please show us how you reconcile the disclosure in this section with the information on page F-6 regarding issuance of stock for consultancy services.*

Response: The Company has revised the Registration Statement on page 118 to disclose that William H. Yeh was issued 64,000 shares of common stock on August 1, 2010 and 40,000 shares of common stock on June 1, 2011 for certain financial consulting services rendered to the Company.

Signatures, page II-5

76. *Please revise to clarify who will be signing in the capacity of principal accounting officer or controller below the second paragraph of text required on the Signatures page when you file your Form S-1.*

Response: The Company has revised the Registration Statement on page II-5 to address the Staff's comment.

Exhibits

77. *Please file all exhibits to exhibit 10.19.*

Response: The Company has submitted all exhibits to Exhibit 10.19.

78. *Please file a consent from your independent accountants with your first public filing in EDGAR. Afterwards, to the extent there is a delay in requesting effectiveness of your registration statement, or there is any change, other than typographical, made to the*

financial statements, or there have been intervening events since the prior filing that are material to the company, please provide a currently dated and signed consent from your independent accountants with subsequent publicly filed amendments.

Response: The Company advises the Staff that the Company will file the consent from its independent accountants as Exhibit 23.1 with the initial public filing of the Registration Statement.

Please direct any questions with respect to this confidential submission 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.
David Kuo, Applied Optoelectronics, Inc.
Philip Russell, DLA Piper LLP (US)
Robert Suffoletta, Wilson Sonsini Goodrich & Rosati, P.C.

