

Frank Wu
frank.wu@dlapiper.com
T 713.425.8446
F 713.300.6046

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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. 1 to Confidential Draft Registration Statement on Form S-1
Submitted May 22, 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 June 7, 2013 (the “*Staff Letter*”) relating to the Company’s Amendment No. 1 to 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 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 Comment Letter, the Company has revised the Registration Statement and is confidentially submitting a revised draft of the Registration Statement (“*Amendment No. 2*”), 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 May 22, 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. 2.

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.***

Response: The Company advises the Staff that the Company was not intending to compare itself to other third parties or competitors. The Company has revised the Registration Statement on pages 1 and 80 to delete the references to “extremely” and “exceptionally” that may indicate such a 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.***

Response: The Company advises the Staff that the Company was not intending to compare itself to competitors, but was simply describing its own capabilities and advantages resulting from the Company’s vertically-integrated structure. The Company has revised the Registration Statement on pages 85 and 86 to indicate that there are other competitors who also have a vertically-integrated structure.

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.

Response: The Company is supplementally providing to the Staff additional explanation as to how the material supports the \$2.2 billion market opportunity, including information regarding (1) the Company's products sold in such markets and (2) the relevant technical terms and acronyms used in the supporting material. Please refer to the materials attached as Annex A to the Supplemental Materials.

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.*

Response: The Company has revised the Registration Statement on page 2 so that each of the customers now identified as a "key customer" is within the company's top 10 customers by overall 2012 revenue and is among the top 2 customers by revenue in each of their respective markets (CATV, FTTH or internet data center). With respect to the top 5 CATV OEMs, the Registration Statement has been revised so as to avoid any implication that those are all "key

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customers". The Company believes that potential investors could consider it material that the Company sells products to each of the top 5 CATV OEMs.

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.*

Response: The Company has revised the summary of the Registration Statement in response to the Staff's comment. The Company believes that, as revised, the detail included in the summary provides potential investors relevant background regarding the Company, its operations and the markets in which it participates, which include the cable television market as the Company's largest and most established market.

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.*

Response: The Company believes that its ability to obtain design wins is a key strength and further that those design wins provide meaningful and recurring revenue in current and future periods, demonstrating their importance. However, the Company also believes that investors should not draw the conclusion that a certain increase or decrease in the mere number of design wins necessarily correlates to a likely increase or decrease in revenue. For example, looking at major design wins in 2009, the Company obtained 29 wins and derived \$2.3 million from those design wins. On the other hand, the Company only obtained 12 design wins in 2010, but revenue from those design wins was \$4.1 million. Then, in 2012, the number of design wins increased but the associated revenue decreased. Therefore, because investors may draw an incorrect conclusion from the number of design wins, the Company does not believe it is appropriate to include the number of design wins from period to period. The Company has revised the Registration Statement on page 4 to delete the number of design wins and on page 49 to de-emphasize the importance of individual design wins with respect to the Company's performance and to disclose that an increase or decrease to the number of design wins does not necessarily correlate to a likely increase or decrease in revenue.

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.*

Response: The Company has revised the Registration Statement on page 12 to present Total Stockholder's Equity.

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.*

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Response: The Company advises the Staff that, while there is a risk that a customer may choose to use competing products, the Company believes that it has sufficient technology that adequately meets the needs of the Company's target customers. As such, the Company believes that this is not a technological risk, but rather is a general business risk that is already covered by several of the risk factors contained in the Registration Statement (such as the risk factor contained on page 15 titled "We have limited operating history in the FTTH and internet data center markets, and our

business could be harmed if these markets do not develop as we expect”; the risk factor contained on page 16 titled “We must continually develop successful new products and enhance existing products, and if we fail to do so or if our release of new or enhanced products is delayed, our business may be harmed”; and the risk factor contained on page 19 titled “We face intense competition which could negatively impact our results of operations and market share”).

We may be involved in intellectual property disputes, page 26

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

Response: The Company has revised the Registration Statement on page 26 to include the substance of the Company’s prior response.

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.*

Response: The Company has revised the Registration Statement on page 28 to include the substance of the Company’s prior response.

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.*

Response: The Company has revised the Registration Statement on pages 97 and 98 to include a description of export controls to which the Company is subject from the U.S. Department of Commerce, Bureau of Industry and Security.

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.*

Response: The Company advises the Staff that the Company has included the consent of the third-party with Amendment No. 2.

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.*

Response: The Company has revised the Registration Statement on page 39 to reflect that the intended use of the net proceeds from the offering is for working capital and other general corporate purposes and has deleted the list of previously mentioned items which related to working capital

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and other general corporate purposes. The Company has not yet determined or allocated any specific amount for items related to working capital and other general corporate purposes. In addition to the use of proceeds for working capital and other general corporate purposes, the Company also advises the Staff that the Company has not decided on a specific plan for a significant portion of the proceeds. Although the Company does not have specific commitments or specific plans to repay any particular indebtedness in advance of its maturity, the Company may repay some or all of its indebtedness. Finally, as currently disclosed in the Registration Statement, the other principal reason for the offering is to provide the Company the option to expand its current business through strategic alliances with, or acquisitions of, other businesses, products or technologies. Because the Company currently has no agreements or commitments for any such specific alliances or acquisitions, the Company has not identified what portion, if any, of the net proceeds will be used for this purpose.

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.*

Response: The Company has revised the Registration Statement in response to the Staff’s comment.

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.*

Response: The Company has revised the language contained on pages 128, F-34 and F-35 to indicate that these warrants automatically convert upon the closing of the offering, unless earlier exercised by the holder, into a number of common shares determined by dividing (i) the aggregate fair market value of the underlying shares less the aggregate cost of those shares (using the exercise price indicated) by (ii) the then fair market value of one share. The fair market value of the shares is determined by either the closing price of the shares, if traded on an exchange, or the Board of Directors of the Company, if not traded on an exchange. The Company has revised the Registration Statement on pages 128, F-34 and F-35 to provide such clarification and will further revise the Registration Statement to reflect the assumed effect of this conversion based on the midpoint of the price range for the Company’s common stock in this offering as specified in the Company’s preliminary prospectus once such range is known.

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.*

Response: The Company has revised the Registration Statement on page 43 to exclude land use and other intangible assets to derive the actual net tangible book value of \$3.55 per share. The calculation for the actual net tangible book value per share of \$3.73 was derived as follows: total assets of \$61,057,000, less total liabilities of \$30,736,000, divided by common shares of 8,120,091. The revised calculation is total assets of \$61,057,000; less intangibles of \$1,468,000; less total liabilities of \$30,736,000; equaling \$28,853,000; divided by common shares of 8,120,091; or \$3.55 per share.

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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.*

Response: The Company believes that its ability to obtain design wins is a key strength and that design wins are a factor affecting its performance. However, the Company also believes that investors should not draw the conclusion that a certain increase or decrease in the mere number of design wins necessarily correlates to a likely increase or decrease in revenue. As indicated in the Company's response to comment 5 above, the number of design wins (increasing or decreasing in absolute number) does not necessarily correlate to an associated increase or decrease in revenue. All design wins are not the same in magnitude or longevity and conclusions that could be drawn from a change in the mere number of wins would be inappropriate. While the Company could provide the foregoing disclosure to investors to the effect that they should not draw conclusions from the number of design wins, the Company believes that investors would naturally undertake such an analysis. However, the addition of this disclosure would not address the issue surrounding the lack of definition of what may or may not constitute a design win among the Company and its competitors (or for that matter with period to period comparisons). Since the actual 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 the number of design wins or that such disclosure would be appropriate.

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.*

Response: The Company has revised the Registration Statement on page 50 to add disclosure concerning its comparison of average selling price declines. As stated on such page, the Company understands that competitors' product lines and market focus may be simultaneously narrower (in terms of markets) and broader (in terms of products within a particular market) than the Company's.

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.*

Response: The Company advises the Staff that, while there are product categories on the Company's website, the gross margin within a single product and among products within a single category vary within those products and categories by customer and by geographic region. For example, if all transceivers carried a similar margin, then selling more or less transceivers in a period might account for a change in margin. However, because a single product category's gross margin (like a transceiver) can vary by customer and by geographic markets, selling products in the same product categories to different customers and in different markets will result in changes to the Company's gross margin by the mix of similar products to different customers and/or geographic markets. Therefore, while there may be overall similarities among the Company's products (as the categories on our website imply), there are insufficient similarities among those products to permit the Company to

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accurately and succinctly describe the exact mix of products that would account directly for the change in margin.

Other Income, page 56

19. *Please describe the nature of the government subsidy.*

Response: The Company receives multiple subsidies from the national and local Chinese government agencies for various reasons and in various amounts. These subsidies (or awards) are made by the government agencies to promote local manufacturing and production in China. Often the subsidy is awarded based on qualifications as a high-tech enterprise or as a manufacturing growth enterprise. The Company advises the Staff that these subsidies are discretionary and irregular in amount and frequency. Some months there is no subsidy and some months the subsidies are from multiple sources but in differing amounts. Since the subsidies are totally discretionary on the government's behalf, and they vary from period to

period, the Company is unable to indicate with much specificity the content or character of the subsidiaries in the Registration Statement. The total subsidy received from various sources in 2010, 2011 and 2012 has been \$77,613, \$78,222 and \$94,113, respectively.

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.***

Response: The Company has revised the Registration Statement on pages 73 and 74 to clarify the presentation of 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.***

Response: The Company advises the Staff that the Company has included the consent of the third-party with Amendment No. 2.

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.***

Response: Concerning the first and second bullet, the Company has revised the Registration Statement on page 74 to provide specific disclosure concerning the grants on each of the indicated dates. The Company has added the prices for Series F and Series G shares, as well as other

information concerning the factors considered in establishing fair value of its common shares for stock grants in 2012. The Company notes that in granting options at \$0.20 per share on February 10, 2012, the primary valuation factors considered by the Company's board of directors were: the price per share of \$0.25 at which the Company had sold shares of its Series F preferred stock during March of 2009; the price per share at which the Company sold shares of Series G preferred stock during December of 2011 (initially at a price of \$0.60 per share but revised downward to \$0.35 per share because of the Company's financial losses and third party investor demands); the losses that were being sustained in Q1 of 2012 on an operating and net income basis, and the likelihood that the Company would achieve its forecasted revenue during the remainder of 2012. The Company's Board also considered the additional rights and preferences granted to holders of Series F and Series G preferred stock (liquidation preference and conversion preferences into common at more than one-for-one) in comparison to the rights of common stock. Concerning bullet three, the board took into consideration the Company's failure each year to meet its revenue projections in 2008-09, the negative cash flow that had been sustained in 2010-11 and the first quarter of 2012, an increasing debt burden, and the lack of cash available for working capital. While the Board was optimistic that the Company would meet its projections in 2012 and ultimately achieve profitability, there existed in 2012 great uncertainty concerning those projections. The Board considered the March 2009 valuation relevant because it was the most recent valuation that had been performed by a third party valuation expert, and since overall conditions of the Company, while improving, were not materially different than in 2009 (e.g., sustained losses and negative cash flow). The valuation performed by Adams Capital, Inc. ("Adams") as of December 31, 2012 used consistent methods over a historical period and confirmed mathematically and statistically the valuation adopted by the Board to arrive at the value of the Company's common stock.

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.***

Response: The Company's Board obtained an appraisal as of December 31, 2012, by Adams, which was the same business valuation expert that had performed an appraisal of the Company's common stock in 2009. The Board reviewed the appraisal methodology that had been employed by Adams and determined the methodology and assumptions to be sound and a reasonable basis for valuation.

In its valuation report, Adams used two primary methods to select the appropriate marketability adjustment: marketability studies based on empirical data and quantitative methods. The empirical studies focus on the actual exchange of non-marketable interests and the resulting discounts from the price of similar marketable interests. The quantitative methods estimate appropriate marketability discounts based on various assumptions related to the characteristics of the subject interest. Adams reviewed the two empirical marketability studies, sales of temporarily restricted shares of otherwise publicly-traded companies (letter stock studies), and sales of shares of closely held companies prior to subsequent initial public offerings. Adams also considered put option analysis as a quantitative method of determining an appropriate discount for lack of marketability. Nine studies were included in the sample, including the Standard Research Consultants, and SEC Institutional Investor Study. The average lack of marketability discount ranged from 25% to 35%, with the average being 31%. Adams then also looked at IPO studies by Valuation Advisors from 1995 to 2012, and determined based upon their review that the average discount was 33.8%. Adams then took into account subjective criteria such as dividend likelihood and history, the time necessary to dispose of the interest, the entities plans to go public, and the market into which the Company could sell an interest.

Adams came to the conclusion that, given the studies and the subjective factors considered, the lack of marketability discount of 30.0% should be applied. The Company's Board reviewed the report and

came to the same conclusion. The Company further notes for the Staff that the December 31, 2012 valuation was performed prior to the Company's organizational meeting with respect to the contemplated offering. The likelihood of a successful IPO factored into the marketability discount determination.

The Cost of Capital assumption was likewise derived from the methods employed in the Adams appraisal, which the Board reviewed and concluded was appropriate in method and conclusion. In general, a company's cost of capital is the discount rate applied to the free cash flow. The discount rate reflects the opportunity cost of all capital providers weighted by their relative contribution to the company's total capital. Theoretically, the cost of capital should reflect the return required (on a weighted average basis) by investors based on expected returns from other investments of equivalent risk. The weighted average cost of capital ("WACC") is based on the required rate of return for debt and equity, respectively, as well as the mix of debt and equity deemed appropriate for the subject company.

The formula for calculating the WACC is:

$$\text{WACC} = (\text{Ke} * \text{We}) + (\text{Kd} * \text{Wd})$$

where:

Ke = Cost of equity

We = Equity weight (value of equity divided by invested capital)

Kd = After tax cost of debt

Wd = Debt weight (value of interest bearing debt divided by invested capital)

Invested capital is the sum of interest bearing debt and market value of equity. The Company estimated a target capital structure of 85.0% equity and 15.0% debt. The Company's financial forecast projects revenue growth between 15.0% and 35% for the next five years. The Board took into consideration the Company's historical growth and projections for the overall industry where revenue is expected to grow at a more modest 2% to 5% over the next five years. Because the Company may face greater price pressure and competition and the fact that the Company had not yet turned profitable on an annual basis, an additional 10.0% company specific risk premium was included in the calculation of the Company's cost of equity. Adams determined the cost of equity to be 27.2%, and the cost of debt to be 3.9%, both of which were adopted by the Board as reasonable. Therefore, the WACC was determined to be as follows:

$$(27.2\% * 85.0\%) + (3.9\% * 15.0\%) \text{ or } 23.7\%, \text{ rounded to } 24\%.$$

Industry Background, page 79

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

Response: The Company has revised the Registration Statement on page 81 to incorporate the substance of its prior response.

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.*

Response: The Company advises the Staff that wavelength drift is not an issue with the Company's WDM-PON products because the Company's laser modules contain an internal

cooler that stabilizes temperature to make sure that the most temperature-sensitive parts of the module are not affected by changes in the ambient temperature of the overall module.

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.*

Response: The Company advises the Staff that the Company has over 12,800 product SKU's so it is not practicable to show all of the Company's individual products' pictures. Furthermore, it should be noted that the products depicted on pages 90 through 92 are "product families," and the pictures are representative of products within that product family. For example, there could be a particular butterfly laser within the "cooled laser diodes" product family that provide more or less revenue than the actual butterfly laser (by SKU) shown in the picture. With that clarification, the product families that are not depicted in the pictures in the Registration Statement do not generate more revenue than the product families depicted within the Registration Statement. Furthermore, the Company notes that the product families provided in the Our Products section of the Registration Statement represented over 80% of the Company's 2012 revenue.

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).*

Response: The Company advises the Staff that the two consulting agreements it entered into with the Company's shareholders and directors were Chang Office, LLC and Technology Associates Management Co., Ltd. With respect to the consulting agreement with Chang Office, LLC, Chang Office, LLC agreed to provide certain consulting services for the benefit of the Company's audit committee, including the evaluation of the Company's internal controls. In 2012, the Company paid Chang Office, LLC \$25,000 for these services. Nancy T. Chang, a former member of the Company's board of directors, is the President and sole member of Chang Office, LLC. With respect to the consulting agreement with Technology Associates Management Co., Ltd., Technology Associates Management Co., Ltd. also agreed to provide consulting services for the benefit of the Company's audit committee, including the preparation of an internal audit program for the Company. In 2012, the Company did not pay Technology Associates Management Co., Ltd. for these services because no payment was owed to Technology Associates Management Co, Ltd during such period. As a result, the Company revised the Registration Statement on page 104 to only reflect payments made by the Company to Chang Office, LLC in 2012, as no payments were made by the Company to Technology Associates Management Co., Ltd in 2012.

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."*

Response: The Company has revised the Registration Statement on pages 120 and 122 in response to the Staff's comment. The Company also advises the Staff that no additional transactions would be disclosed under this section if the information was not presented "on an as converted basis", other than registration rights provided to Shiu-Mei Lin Chou, Yaun-Chung Hsu, Wei-Chien Wu and Yuanpin Hsu, as reflected in the amended Registration Statement.

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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.*

Response: The Company advises the Staff that the reference to Item 1 of Form 8-K in Section 2.4 of the Company's 2006 Incentive Share Plan is incorrect, as there is currently no Item 1 of Form 8-K. Instead, the reference was intended to be what is currently Item 5.01 of Form 8-K, relating to changes in control of the registrant. This reference was incorrectly carried over from the Company's 1998 Incentive Share Plan, 2000 Incentive Share Plan and 2004 Incentive Share Plan, which were adopted by the Company prior to the Commission's amendments to Form 8-K in 2004. The Company further notes that Section 3.2(a)(iii) of the Company's 2006 Incentive Share Plan authorizes the Company's compensation committee to conclusively interpret the provisions of the 2006 Incentive Share Plan, with such interpretation to be final and binding. On or prior to the closing of the offering, the Board of Directors of the Company plans to amend the 2006 Share Incentive Plan to correctly reference Item 5.01 of Form 8-K or any successor provision of Form 8-K relating to a change in control of the registrant.

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.*

Response: The Company advises the Staff that the plan to grant stock options previously disclosed on page 120 of Amendment No. 1 does not include stock options to purchase common stock that are exercisable within 60 days of May 31, 2013 and, as such, the Company has not revised the Registration Statement on page 125.

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.*

Response: The Company has revised the Registration Statement on page 128 to address the Staff's comment.

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.*

Response: The Company has revised the Registration Statement on page F-9 to expand the disclosure of fair value.

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.*

Response: The Company has revised the Registration Statement on page F-17 to include inventory disclosure at March 31, 2013.

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,*

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which would appear to be a derivative, should also be included in your fair value disclosures.

Response: The Company has revised the Registration Statement of page F-20 to address the Staff's comment.

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.*

Response: The Company has revised the Registration Statement on page F-36 to add revenue by product line for each period presented.

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.*

Response: The Company confirms that the signature pages to the Company's first filing will 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.*

Response: The Company has revised the Registration Statement on page 131 in response to the Staff's comment.

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 62(3)(ix).*

Response: The Company advises the Staff that the complete agreement was filed as Exhibit 10.28. The missing provisions were placeholders for the parties to have included additional terms and conditions, if needed, at the time the agreement was executed.

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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.

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