



DIVISION OF
CORPORATION FINANCE

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

August 23, 2013

Via E-mail

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

**Re: Applied Optoelectronics, Inc.
Registration Statement on Form S-1
Filed August 13, 2013
File No. 333-190591**

Dear Dr. Lin:

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

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

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Prospectus Summary, page 1

1. It does not appear that you responded to prior comment 3 about disclosure of customers in the first paragraph on page 2 other than your two largest customers. In this regard, we note that you continue to refer in that paragraph to Arris Group, Aurora Networks, Harmonic and Motorola Mobility Holdings. As we requested in prior comment 3, please relocate your disclosure of these companies to a more appropriate section of your prospectus after your prospectus summary where you disclose the extent of each identified entity's current contribution to your revenue.

Use of Proceeds, page 39

2. We note your revision in response to prior comment 7. Please clarify the nature of the capital expenditures. Also disclose the approximate amount that you currently intend to use for the capital expenditures and the other uses of proceeds that you have added.

Factors affecting our performance, page 48

3. We note that you removed design wins as a factor affecting your performance in response to prior comment 8. Given your disclosure about design wins and strengths in the sixth bullet point and first bullet point on pages 3 and 85, respectively, the disclosure in the second sentence on page 49 and the disclosure about your operating results and trends in the fourth and fifth bullet points on page 65, it remains unclear why you believe the disclosure in your prospectus provides sufficient information for investors to evaluate how the design wins affected your performance in the periods presented and what the design win trends are. Please advise or revise.

Revenue, page 54

4. We note your response to prior comment 9. Please disclose why your revenues from the FTTH and other markets increased in the six months ended June 30, 2013.

Quarterly Results of Operations, page 62

5. Please clarify whether Adjusted EBITDA for the quarter ended March 31, 2013 is \$305,000 as disclosed on page 62 or \$350,000 as disclosed on page 63.

Liquidity and Capital Resources, page 65

6. Please reconcile the financing activities discussion for the six months ended June 30, 2013 to the presentation on the face of the statement of cash flows. In that regard, based on the statement of cash flows, it appears that cash was provided by financing activities and that net borrowings increased rather than decreased.

Stock-based compensation expense, page 73

7. We refer to the stock compensation analysis provided in your letter dated August 15, 2013. Please expand the disclosure in your filing to describe each significant factor contributing to the difference between the estimated offering price and the per share fair value used for purposes of measuring stock-based compensation for each grant date during the twelve months ended June 30, 2013. The disclosure should progressively bridge the changes in per share fair values and describe intervening events and reasons for changes in assumptions.

8. Please disclose the intrinsic value of outstanding stock options as of June 30, 2013 based on the expected offering price.

Overview, page 79

9. Your response to the last sentence of prior comment 3 does not address that comment fully. Please expand your statement regarding naming companies “based on revenues” to clarify whether you mean the revenue of the customer, your total revenue from the customer, or the portion of your revenue in the disclosed market from the named customer. Also, disclose all entities that satisfy the criteria that you used to determine which customers to name, and disclose the extent of each entity’s current contribution to your revenue.

Trends in the Internet Data Center Market, page 82

10. Please address the last sentence of prior comment 3 as it applies to the entities that you name in the second paragraph of this section.

Note C. Earnings Per Share, page F-15

11. Please show us how the \$2.33 net loss per share for the six months ended June 30, 2012 was determined.

Item 15. Recent Sales of Unregistered Securities, page II-2

12. Please reconcile your disclosures in Item 15 to the issuance of preferred stock in the second quarter of 2012 reflected by the changes on page F-7.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

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- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

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