

Mail Stop 6010

March 31, 2008

VIA U.S. MAIL AND FAX (508) 373-1103

Mr. Timothy P. V. Mammen  
Vice President and Chief Financial Officer  
50 Old Webster Road  
Oxford, Massachusetts 01540

**Re: IPG Photonics Corporation  
Form 10-K for the year ended December 31, 2007  
Filed March 13, 2008  
File No. 001-33155**

Dear Mr. Mammen:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Year Ended December 31, 2007

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 36

Liquidity and Capital Resources, page 48

1. We note from disclosures on page F-7 that your marketable securities consist primarily of auction-rate securities that are classified as available-for-sale securities. Tell us and revise the liquidity section of MD&A in future filings to discuss whether any of the securities you hold are reasonably likely to affect your financial condition, liquidity or results of operations in a material way, expanding your discussion and analysis in applicable future filings to provide your investors with information necessary for a clear understanding of any trend or uncertainty. Refer to Item 303(a) of Regulation S-K. In addition, provide all appropriate disclosure required by Item 305 of Regulation S-K.
2. We noted your discussion regarding financial covenants on page 49. Please revise future filings to discuss your compliance with your debt covenants.

Note 1. Nature of Business and Summary of Significant Accounting Policies, page F-7

Marketable Securities, page F-7

3. With regards to your marketable securities that are classified as available-for-sale, please tell us about any gains or losses recorded as a part of net income and other comprehensive income, if any. In addition, please revise future filings to provide all of the disclosures required by paragraphs 19-22 of SFAS 115, as applicable.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

Mr. Timothy P. V. Mammen  
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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- The company is responsible for the adequacy and accuracy of the disclosure in the filings;
- Staff comments or changes to disclosure in response to staff do not foreclose the Commission from taking any action with respect to the filing; and
- The company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or me at (202) 551-3603 if you have any questions regarding these comments. In this regard, do not hesitate to contact Angela Crane, Accounting Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb  
Reviewing Accountant