



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

Mail Stop 3030

May 24, 2010

Dr. Avi S. Katz  
Chief Executive Officer and Chairman of the Board  
GigOptix, Inc.  
2300 Geng Road, Suite 250  
Palo Alto, California 94303

**Re: GigOptix, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-1**  
**Filed May 12, 2010**  
**File No. 333-164738**

Dear Dr. Katz:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document 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 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 filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Capitalization, page 21

1. Please revise to remove the caption relating to cash and cash equivalents from your presentation of capitalization.

Where You Can Find More Information, page 61

2. Please refer to prior comment 1. We note your response to our comment and revisions to the registration statement to incorporate by reference your Form 10-K for the fiscal-year ended December 31, 2009 and Form 10-Q for the fiscal-quarter

ended April 4, 2010. We also note that you have revised the registration statement to remove all of the Selected Financial Data and Pro Forma financial information related to the ChipX transaction. Since the acquisition of ChipX was consummated in November of your most recent fiscal year, tell us why you have not provided a pro forma statement of income for fiscal 2009 in the filing that reflects the combined operations of the entities for the entire fiscal year (refer to Rule 8-05 of Regulation S-X) or revise the filing to include the referenced pro forma statement of operations for the fiscal-year ended December 31, 2009.

3. Please ensure that you have resolved all comments on your annual report on Form 10-K and related Exchange Act reports prior to requesting acceleration of this registration statement.
4. We note that you have submitted an application for confidential treatment of portions of Exhibit 10.46 that was filed with the Form 10-K/A on April 30, 2010. Please ensure any comments on that application have been resolved prior to requesting acceleration of this registration statement.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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;
- 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

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- 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.

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 connection with our review of your filing or in response to our comments on your filing.

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.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Kevin Kuhar at (202) 551-3662 or Jay Webb at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3625 with any other questions.

Sincerely,

Mary Beth Breslin  
Senior Attorney

cc (via fax): Jeffrey C. Selman, Esq.  
Nixon Peabody LLP