

Mail Stop 6010

June 12, 2007

Ralph Schmitt  
Chief Executive Officer  
Sipex Corporation  
233 South Hillview Drive  
Milpitas, California 95035

**Re: Sipex Corporation  
Amendment No. 3 to Registration Statement on Form S-1  
Filed May 24, 2007  
File No. 333-138740**

Dear Mr. Schmitt:

We have limited our review of your filing to those issues we have addressed in our 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.

Registration Statement

1. We note from your response to prior comment 2 that unless an investor is able to make the representation that, among other things, the investor is an accredited investor or qualified institutional buyer, the warrant will only be exercisable on a cashless basis. Expand the cover page and prospectus summary to disclose this information. Also, please tell us what consideration you have given to how and whether potential secondary market purchasers who may purchase the warrants without having received your prospectus will know of such restrictions prior to the time they attempt to exercise their warrants.

2. We see that on May 24, 2007, Exar Corporation filed a joint proxy statement/prospectus on Form S-4 relating to the acquisition of your company. We also note disclosure in the S-4 indicating that you have agreed to use commercially reasonable efforts to cause the conversion of notes and the exercise of the warrants that are included in your pending registration statement prior to the effective time of the merger. We also note disclosure in the S-4 that each note and warrant to purchase your common stock outstanding at the completion of the merger with Exar will be guaranteed or assumed by Exar, as applicable, and will automatically become a note convertible into or a warrant to purchase shares of Exar common stock, for an adjusted number of shares and with an adjusted conversion or exercise price based on the exchange ratio. Please expand your disclosure to include this information.
3. It does not appear that Section 3(a)(9) of the Securities Act will be available for the cashless exercise of the warrants at such time as Exar will be the issuer of the securities underlying the warrants. As such, please include disclosure which indicates that after the consummation of the merger, the warrants will only be exercisable by accredited investors or qualified institutional buyers who are able to make the representations contemplated by Section 2(a) of the warrants. Also, given that only accredited investors or qualified institutional buyers will be able to exercise the warrants after the consummation of the merger, please tell us whether the registration of the resale of the warrants has the potential to create a public market in the warrants and how you have determined that it is appropriate to create a public market for the warrants at this time.

Form 10-K for the Fiscal Year Ended December 31, 2006

General

4. We note that on page 28 and 61 you refer to using the valuation of an independent appraisal firm when determining fair value of the wafer fabrication assets. Please amend your Form 10-K to remove the reference to the independent valuation expert or amend your Form S-1 to name the independent valuation expert in the Experts section, and include their consent as an exhibit. Refer to Rule 436 and Item 601(b)(23) of Regulation S-K.

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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

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letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 Julie Sherman at (202) 551-3640 or Angela Crane at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. You may contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3800 with any other questions.

Sincerely,

Peggy A. Fisher  
Assistant Director

cc: Robert G. Day, Esq. (via fax)  
Allison Berry Spinner, Esq. (via fax)