



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

DIVISION OF  
CORPORATION FINANCE  
Mail Stop 3030

June 3, 2010

Leonard Borow  
Chief Executive Officer and President  
Aeroflex Holding Corp.  
35 South Service Road  
P.O. Box 6022  
Plainview, NY 11803

**Re: Aeroflex Holding Corp.  
Amendment No. 1 to Form S-1  
Filed May 19, 2010  
File No. 333-165920**

Dear Mr. Borow:

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.

Prospectus Summary, page 1

1. We note your response to prior comment 4. Please tell us whether you plan to file consents to be named in the registration statement by the authors of the publications which you cite in this registration statement.
2. We note your response to prior comment 5. However, please revise your disclosure to clarify that your statement that you "are a leading global provider" on page 1 is based upon estimates based on your knowledge and experience in the markets in which you operate. Additionally, please revise your disclosure to clarify your

statement on page 3 that you “have proprietary technology that is based on extensive know-how.” For example, please expand to clarify your basis for the statement. Please also revise your disclosure on page 1 to clarify the product categories in which you believe you have a top three global position. Additionally, please tell us how management estimated the calendar year 2009 markets for the product categories discussed in your response.

We are controlled by the Sponsors, whose interests may not be aligned with yours, page 31

3. Please revise to clarify the “certain other parties” for whom your Amended and Restated Certificate of Incorporation will renounce your interest and expectancy in corporate opportunities. For example, please clarify if this renunciation of your interests applies to corporate opportunities identified by any of your Sponsors.

Base Salary, page 102

4. We note your disclosure continues to indicate that “[s]alary is based on an executive’s level of responsibility and experience, individual performance and vulnerability to recruitment by other companies.” Please briefly indicate how these criteria factored into the negotiations of the provisions for base salary and base salary adjustments contained in each of the named executive officer’s employment agreement.

Incentive Bonus Plan, page 103

5. We note your disclosure in note 3 to your Summary Compensation Table. Please disclose in this section how the bonuses available to Messrs. Borow and Buyko were calculated and indicate the amounts they agreed to accept. With respect to the calculations of the bonus amounts available to these officers, it is not clear how you arrived at the amounts disclosed in note 3. For example, you indicate that the Adjusted EBITDA target was \$142 million for fiscal 2009 and that a sliding scale is used to determine bonuses when Adjusted EBITDA is between the minimum and maximum amounts. We note from page 13 that Adjusted EBITDA for fiscal 2009 was approximately \$145 million, or approximately 102% of the target. Applying 102% to the Messrs. Borow’s and Buyko’s base salary does not produce the amounts disclosed in note 3. Please reconcile.
6. We note your response to prior comment 20. Please disclose how the amounts of the bonuses for the other named executive officers were determined including how the achievement of the Adjusted EBITDA targets and individual performance factored into those decisions.
7. It appears that the amounts paid to your named executive officers as bonuses under your incentive bonus plan, which are disclosed under the caption "Non-Equity

Incentive Plan Compensation" in your Summary Compensation Table, were granted pursuant to a plan. If so, please include the table required by Item 402(d) of Regulation S-K and include the threshold, target and maximum amounts related to those awards pursuant to Item 402(d)(2)(iii).

Advisory Agreement, page 115

8. We note your response to prior comment 14 and reissue our comment. We note that in connection with this offering, you will enter into a termination agreement with the affiliates of the Sponsors that are parties to the advisory agreement. However, please expand your disclosure to clearly describe the services that were provided by the affiliates of the Sponsors in connection with the advisory agreement.

Limited Liability Company Agreement, page 115

9. We note from your response to prior comment 24 that the forced sale rights contained in the Limited Liability Company Agreement will be terminated prior to the consummation of your offering. Please provide a brief description of the tag-along rights, drag-along rights, preemptive rights and other information rights that will survive after the consummation of your offering.

Transactions with Goldman, Sachs & Co. and its Affiliates, page 117

10. We note your response to prior comment 25 and reissue our comment. Please revise to disclose the information required by Item 404 of Regulation S-K. For example, please revise to disclose the amount of fees received in the transactions and the amount of senior notes that Goldman, Sachs & Co. and its affiliates purchased.

Underwriting, page 133

11. We note your response to prior comment 30 and your revised disclosure on page 135 and reissue our comment. Please disclose the offering expenses specified in Item 511 of Regulation S-K. Please furnish a reasonably itemized statement of all expenses in connection with the issuance and distribution of the securities to be registered. See Instruction 2 to Item 508(e) of Regulation S-K.

Exhibits

12. We note your response to prior comment 7. Please file the termination agreement with the affiliates of the Sponsors that are parties to the advisory agreement discussed on page 115 as an exhibit.

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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 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
- 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 will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

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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 Jeanne Bennett at (202) 551-3606 or Brian Cascio at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551-3316 or me at (202) 551-3635 with any other questions.

Sincerely,

Tim Buchmiller  
Senior Attorney

cc (by facsimile): Michael R. Littenberg, Esq  
Schulte Roth & Zabel LLP