

April 10, 2018

**VIA EDGAR**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, DC 20549

**RE: MACOM Technology Solutions Holdings, Inc.  
Form 10-K for the Fiscal Year Ended September 29, 2017 (the "Form 10-K")  
Filed November 15, 2017  
File No. 001-35451**

Dear Mr. Kuhar:

MACOM Technology Solutions Holdings, Inc. (the "Company," "we" or "us"), hereby submits responses to the comments of the staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") contained in the Staff's letter dated March 28, 2018 (the "Comment Letter"), relating to the above-referenced Form 10-K. The headings of this letter correspond to the headings contained in the Comment Letter, and to facilitate your review, we have reproduced below the original text of the Staff's comments, in bold, followed by the Company's responses.

Form 10-K for the Fiscal Year Ended September 29, 2017

Note 3. Acquisitions

Acquisition of Assets of Picometrix LLC, page 62

- 1. You disclose that the Picometrix acquisition was accounted for as an asset purchase. Refer to ASC 805-50-30-3 and explain to us how your characterization of this transaction as an asset purchase is consistent with the recording of goodwill. Otherwise, revise this note in future filings to correctly describe the transaction as the acquisition of a business.***

**Response:** The Company will describe the Picometrix acquisition as an acquisition of a business in future filings.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures, page 87

- 2. We note that the report of your Independent Registered Public Accounting Firm on page 88 indicates that management excluded AppliedMicro from its assessment of the effectiveness of internal control over financial reporting. Here you indicate that the scope of your evaluation including the effectiveness of your disclosure controls for fiscal year 2017 excluded internal controls related to financial reporting for periods prior to AppliedMicro integration. Please note that the accommodation provided for excluding newly acquired entities in Question 3 of the Frequently Asked Questions on Management's Report on Internal Control Over Financial Reporting does not apply to your evaluation of disclosure controls and procedures. Please amend the filing to provide management's conclusion on the effectiveness of all of your disclosure controls and procedures as of September 29, 2017. Refer to Exchange Act Rules 13a-15(e) and 15d-15(e).***

**Response:** In response to the Staff's comment, the Company proposes to amend and restate the section titled "Evaluation of Disclosure Controls and Procedures" under Item 9A of its Form 10-K as follows:

### **Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act), that are intended to ensure that information that would be required to be disclosed in Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Principal Executive Officer and the Principal Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

An evaluation was performed, under the supervision, and with the participation of our management, including our Principal Executive Officer and Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of September 29, 2017. ~~We acquired AppliedMicro on January 26, 2017 and subsequently integrated their existing financial reporting processes and procedures into our financial reporting internal control structure. Accordingly, the scope of our evaluation including the effectiveness of our disclosure controls for fiscal year 2017 excluded internal controls related to financial reporting for periods prior to AppliedMicro integration. AppliedMicro's pre-integration revenue constituted approximately 11% of our consolidated revenue for the fiscal year ended September 29, 2017. Based on this evaluation, our Principal Executive Officer and Principal Financial Officer concluded that our disclosure controls and procedures were effective as of September 29, 2017 at the reasonable assurance level.~~

3. ***Further, as we note that you concluded that your disclosure controls and procedures were effective at the reasonable assurance level, please revise the disclosure in the requested amendment to indicate, if true, that your disclosure controls and procedures are designed to provide reasonable assurance that controls and procedures will meet their objectives. Otherwise, advise us.***

**Response:** In response to the Staff's comment, the Company proposes to amend and restate the section titled "Evaluation of Disclosure Controls and Procedures" under Item 9A of its Form 10-K as noted in its response to the Staff's second comment above.

Management's Annual Report on Internal Control over Financial Reporting, page 87

4. ***Revise this report in the amended Form 10-K to provide the disclosures discussed in Question 3 of the Frequently Asked Questions on Management's Report on Internal Control Over Financial Reporting as they relate to your management excluding the recently acquired business, AppliedMicro, from its assessment of the effectiveness of your internal control over financial reporting. You may find the FAQs at <https://www.sec.gov/info/accountants/controlfaq.htm>.***

**Response:** AppliedMicro was acquired on January 26, 2017 and became fully integrated into our systems of internal control over financial reporting on August 1, 2017. Since management's assessment of the effectiveness of its internal control over financial reporting as of September 29, 2017 included AppliedMicro, the qualification of its assessment of the effectiveness of its internal control over financial reporting was unnecessary. As a result, the Company proposes to amend its Form 10-K to exclude any qualifications with respect to the acquisition of AppliedMicro in its management's report and the report of the Company's Independent Registered Public Accounting Firm.

5. ***We note that AppliedMicro appears to represent 46% of your total assets at September 29, 2017. Tell us why the balance sheet impact of AppliedMicro has not been quantified in management's report or in the report of your Independent Registered Public Accounting Firm. Otherwise, revise the reports in the requested amendment to disclose the significance the assets excluded from your assessment. Refer to Question 3 of the Frequently Asked Questions on Management's Report on Internal Control over Financial Reporting as well as PCAOB Auditing Standard 2201.B16.***

**Response:** As noted in response to the Staff's fourth comment above, the Company advises the Staff that the qualification of its assessment of the effectiveness of its internal control over financial reporting was unnecessary based on the Company's evaluation of its internal control undertaken as of September 29, 2017. As a result, the Company proposes to amend its Form 10-K to exclude any qualifications with respect to the acquisition of AppliedMicro in its management's report and the report of the Company's Independent Registered Public Accounting Firm.

If we can facilitate the Staff's review, or if the Staff has any questions on any of the information set forth herein, please telephone me at (978) 656-2753.

Sincerely,

/s/ Robert J. McMullan

Senior Vice President and Chief Financial Officer

Cc: Marko Zatylny, Ropes & Gray LLP