

April 5, 2017

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 30, 2016
Filed November 17, 2016
Form 8-K filed January 31, 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 22, 2017 (the "Comment Letter"), relating to the above-referenced Form 10-K and Form 8-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 Fiscal Year Ended September 30, 2016

Item 1A. Risk Factors

We are subject to risks from our international sales and operations, page 17

- 1. Your website lists representatives in Europe, the Middle East and Africa. Syria, located in the Middle East and Sudan, located in Africa, are designated by the State Department as state sponsors of terrorism, and are subject to U.S. economic sanctions and export controls. Your Form 10-K does not provide disclosure about those countries. Please describe to us the nature and extent of any past, current, and anticipated contacts with Syria and Sudan, whether through subsidiaries, affiliates, customers, distributors, resellers, or other direct or indirect arrangements. For instance, you identify Huawei as your largest customer, and a transcript from a 2015 investment conference reports that Alcatel-Lucent is a customer. News articles report that Huawei does business in and sells its products in Syria and Sudan, and Alcatel-Lucent's most recent Form 20-F filed with us discloses that it does business in Syria and Sudan. You should describe any products, components, technology or services you have provided to Syria or Sudan, directly or indirectly, and any agreements, commercial arrangements or other contacts with the governments of those countries or entities they control.***

Response: The Company advises the Staff that the Company's Form 10-K does not provide disclosure about Syria or Sudan because the Company is not aware of any past, current, or anticipated contacts with or transactions related to Syria or Sudan, whether through subsidiaries, affiliates, customers, distributors, resellers or other direct or indirect arrangements, and to the Company's knowledge, it has not provided, directly or indirectly, any products, technology or services to Sudan or Syria, nor has it had any contacts with the governments of Sudan or Syria or entities that they control. The Company has no subsidiaries, affiliates, employees or operations located in Syria or Sudan.

The Company believes it conducts its business in compliance with all applicable U.S. export control laws and regulations, including those relating to countries designated by the U.S. State Department as state sponsors of terrorism and countries that are the subject of U.S. economic embargo or trade sanction programs. The Company maintains a trade compliance department and a global trade compliance program, which includes: (i) export compliance training for relevant employees, (ii) a process to classify the Company's products and technology for export control purposes, (iii) business systems that incorporate automated denied party screening functionality, license determination and blocking functionality designed to prohibit shipments to purchasers located in Syria or Sudan, and (iv) terms and conditions of sale and other agreements with its direct customers, resellers and distributors that prohibit the exportation or re-exportation of Company products, or customer products or systems containing Company products, in violation of applicable export and trade sanction laws or regulations.

The products the Company sells to Huawei and Alcatel-Lucent are incorporated into larger telecommunications and data communications systems manufactured by those customers, which the Company understands are then sold by such customers to telecommunications service providers. Generally, neither Huawei nor Alcatel-Lucent nor the Company's other customers inform the Company of their specific end customers or end use destinations for their integrated systems that include Company products. While the Company generally does not know the ultimate destination of its customers' systems, and has no control over where its customers sell their integrated systems, the Company confirms that it has not, to its knowledge, ever provided to Huawei, Alcatel-Lucent or any other customer any product for export to any party in Sudan or Syria, either individually or as integrated into a customer system. Further, as noted above, the Company's contractual arrangements with these customers prohibit the exportation or re-exportation of its products, or its customers' products or systems integrating Company products, in violation of applicable export and trade sanction laws or regulations.

- 2. Please discuss the materiality of any contacts with Syria and Sudan you describe in response to the comment above, and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any associated revenues, assets, and liabilities for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.- designated state sponsors of terrorism. You should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Syria and Sudan.***

Response: The Company advises the Staff that, based on the factors discussed in its response to the Staff's Comment No. 1 above, it does not have any known past, current or anticipated contacts with Syria or Sudan. Accordingly, the Company is not aware of any such contacts that would constitute a material investment risk for its security holders, either on a qualitative or quantitative basis.

- 3. Please tell us whether any contacts with Syria and Sudan you describe in response to the comments above involve dual use products.***

Response: The Company advises the Staff that, as discussed in more detail in its response to the Staff's Comment No. 1 above, the Company is not aware of any such contacts with Syria or Sudan, including pertaining to dual use products.

4. *As you disclose on page 17 of the Form 10-K, in June 2016 Huawei was issued a subpoena by the Commerce Department. The subpoena regards exports to Syria, Sudan and Iran, another U.S.-designated state sponsor of terrorism. Please address for us the potential for reputational harm from your business with Huawei.*

Response: The Company advises the Staff that, as further described in its response to the Staff's Comment No. 1 above, to its knowledge, the Company has not provided Huawei with any product for export or for use in an end product exported to any party in Syria, Sudan or Iran. Except as already articulated in its disclosures in its Form 10-K, the Company does not expect any material potential for reputational harm arising from its business with Huawei.

Form 8-K filed January 31, 2017

Exhibit 99.1

5. *We note the line item "discontinued operations, excluding consulting income" in your reconciliation of non-GAAP adjusted net income. We further note from your disclosures that you have included consulting income because management views this income as part of your ongoing operations. Please address the following:*

- *Explain to us the nature of the consulting services that you provide under the agreement. Given the limited term of the agreement, explain to us why you believe the agreement is correlated with future operations.*

Response: The Company advises the Staff that pursuant to the terms of the consulting agreement, we have agreed to provide the acquirer of our divested Automotive business with requested non-design advisory services in the areas of (i) module manufacturing and module and component qualification, (ii) printed circuit board and module layout, and (iii) wireless communications and radio frequency component and systems function, over a period of two years from the August 17, 2015 divestiture of our Automotive business. The consulting agreement includes provisions that contemplate the potential need for additional work, and it is possible that we may provide additional services to the acquirer for fees in addition to the amounts stated in the consulting agreement.

The services available under the consulting agreement are core Company engineering capabilities that were not included in the divestiture but were deemed necessary by the acquirer for support of the divested business during the two-year period following its acquisition.

We believe the financial impact of the consulting agreement is correlated with our future operations through the end of the term of the agreement, since we both derive income and incur ongoing costs associated with the consulting services available under the consulting agreement, both of which are spread over the term of the agreement.

Therefore, we believe that providing investors and other readers of our quarterly earnings releases with an Adjusted (non-GAAP) Net Income measure that includes the income associated with the consulting agreement is useful because the associated costs relating to the services provided in connection with the consulting agreement are also included in Adjusted (non-GAAP) Net Income. We believe including both

the other income and the costs in this non-GAAP measure provides additional insight into our ongoing performance and have chosen to provide this information to investors for a more consistent basis of comparison and to enable more meaningful period-to-period comparisons.

- ***Explain to us the nature of any other consulting services you provide in the normal course of your operations and tell us where those revenues are recorded in your financial statements.***

Response: The Company advises the Staff that we do not currently derive revenue or other income from providing other consulting services similar to those defined in the Automotive divestiture consulting agreement. Nevertheless, for the reasons described above, the Company believes that because it continues to incur and recognize expense associated with the consulting services, the appropriate non-GAAP measures should reflect the associated income from such activity.

- ***Explain to us how you considered the tax effect of the consulting income in your reconciliation. Refer to Question 102.11 of the Compliance & Disclosure Interpretations for Non-GAAP Financial Measures updated May 17, 2016.***

Response: The Company advises the Staff that within our reconciliation of GAAP to non-GAAP results, included in our earnings releases, the Company applies the same tax effect on the income from the consulting agreement as the income otherwise presented in the Adjusted (non-GAAP) Net Income. All income in this measure had an effective tax of 12% for our first fiscal quarter of 2017. This tax effect is included, along with the tax effect of the other adjusted items, in the "Tax Effect of Non-GAAP Adjustments" line within our reconciliation of Net (loss) income GAAP to Adjusted net income (non-GAAP) section of the reconciliation.

We believe it is appropriate to show income taxes as a separate adjustment and we believe it is appropriate to include a separate line item for discontinued operations after excluding the consulting agreement income in the reconciliation, in order to provide additional clarity in the reconciliation.

6. ***We note that in presenting non-GAAP net income and non-GAAP adjusted interest expense you exclude non-cash interest expense representing the amortization of certain fees associated with the establishment of your credit agreement and Term Loans. Given that interest expense represents costs of funding and operating your business, please explain to us how your presentation is consistent with Question 100.01 of the Compliance & Disclosure Interpretations for Non-GAAP Financial Measures updated May 17, 2016.***

Response: The Company advises the Staff that we believe the adjustment to remove the non-cash amortization of certain fees, paid primarily at the time of the establishment and/or amendment of our significant credit facilities, is not misleading because we believe these amounts are better reflected as transaction-related expenses comparable to transaction expenses incurred in connection with acquisitions and divestitures rather than being correlated to the ongoing costs of our current and future business operations. In addition, because the entry into and/or modification of these credit facilities is generally associated with supporting acquisitions, we believe that the treatment of such fees in our non-GAAP presentation should be consistent with acquisition related costs.

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. Thank you again for your time and consideration.

Sincerely,

/s/ Robert J. McMullan

Senior Vice President and Chief Financial Officer

Cc: Marko Zatylny, Ropes & Gray LLP