



DIVISION OF
CORPORATION FINANCE

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

August 18, 2014

Via E-mail

Brad Anderson
Chief Financial Officer
Amtech Systems, Inc.
131 South Clark Drive
Tempe, Arizona 85281

Re: Amtech Systems, Inc.
Form 10-K for the fiscal year ended September 30, 2013
Filed December 11, 2013
Form 10-Q for the quarterly period ended June 30, 2014
Filed August 7, 2014
File No. 000-11412

Dear Mr. Anderson:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended September 30, 2013

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Liquidity and Capital Resources, page 33

1. We see that you generated 80% of net revenue outside of North America. Please revise future filings to disclose the amount of cash and cash equivalents as well as

liquid investments held by your foreign subsidiaries at September 30, 2013 and quantify the amount that would not be available for use in the U.S. without incurring U.S taxes.

Consolidated Financial Statements

Note 1. Revenue Recognition, page 46

2. We see from your disclosure that you allocate revenue to multiple deliverables equal to the total sales price less the greater of the (1) relative fair value of the undelivered items and (2) all contingent portions of the sales agreement. Please explain to us how you apply FASB ASC 605-25-30, which requires arrangement consideration to be allocated based on the relative selling price to all deliverables in your multiple element arrangements. Please identify each unit of accounting and discuss how you determine the selling price for each deliverable under FASB ASC 605-25-30-2. Please also include clarifying disclosure in future filings.

Note 10. Income Taxes, page 60

3. In future filings please provide the disclosures related to undistributed earnings of foreign subsidiaries as required FASB ASC 740-30-50-2.

Form 10-Q for the quarterly period ended June 30, 2014

Condensed Consolidated Financial Statements

Note 1. Basis of Presentation, Warranty, page 11

4. We see that your warranty accrual significantly declined from \$1.7 million at June 30, 2013 to \$766,000 at June 30, 2014. Please revise future filings to provide a discussion of the reasons for changes in judgments or estimates that resulted in a significant decrease in your warranty accrual.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;

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- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Kristin Lochhead, Senior Accountant, at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

/s/ Brian Cascio

Brian Cascio
Accounting Branch Chief