



DIVISION OF
CORPORATION FINANCE

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

August 26, 2011

Via E-mail

Charles Bland
Chief Executive Officer
M/A-COM Technology Solutions Holdings, Inc.
100 Chelmsford Street
Lowell, MA 01851

**Re: M/A-COM Technology Solutions Holdings, Inc.
Registration Statement on Form S-1
Filed August 1, 2011
File No. 333-175934**

Dear Mr. Bland:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please confirm that you currently sell each product that is depicted in the graphics and that each such product contributes substantially to your revenue. Please also note that you may include text in your artwork only to the extent necessary to explain briefly the visuals in the presentation. Please revise accordingly.

Prospectus Cover Page

2. Refer to the final sentence of the first paragraph following your table of contents. Please tell us what you mean when you refer to "other date stated in this prospectus" as any disclosure must be accurate as of the date of the prospectus.

Prospectus Summary, page 1

3. Please revise the summary to highlight your dependence on a handful of customers and third party sales representatives and distributors. In addition, please quantify the number and value of common shares to be received by insiders upon the conversion of your Series A and Series B Convertible Preferred shares in connection with this offering. Finally, disclose here that you will use a significant portion of the proceeds to satisfy your accrued preference payment obligations, and identify the holders of the Series B shares.
4. Please revise your summary and elsewhere to remove or explain marketing style jargon that may only be understood by someone in your industry; such as, for example, monolithic integrated circuit, heterolithic microwave integrated circuit, AIGaA heterojunction P-I-N diode technology, metal electrode leadless face PIN diode and the additional technical terms in the table on page 72. In addition, please remove, state as your belief, or provide support for qualitative statements about you, your business or your products, such as references to “high-performance . . . solutions,” “system-level expertise,” “differentiated, high value products,” and “proven track record . . . and reputation for delivering high quality and reliable solutions.”
5. Revise to remove the list of companies from the first paragraph on page 2, unless they represent your ten largest customers, in which case, please clarify this fact.
6. If you elect to highlight your revenues in your summary as you do in the second paragraph on page 2, please disclose your assets and net profit (loss) during the periods you highlight.
7. Explain what you mean by “sole source design wins” and disclose the number you have achieved and the percentage of your revenue this number represents.

Risk Factors, page 11

We depend on third parties, page 16

8. Please quantify the impact of the referenced defective batch of chemical etchant.

Our Revolving Credit Facility..., page 26

9. We note your disclosure that the restrictive covenants in your revolving loan facility include “among other things...” Please disclose the substance of all material restrictive covenants.

Market, Industry and Other Data, page 33

10. You are responsible for the disclosure in your document. As such, please remove any suggestion that it may be inaccurate from the third sentence.

Use of Proceeds, page 34

11. Please revise to state, if true, that with respect to the proceeds remaining after the preference payment, management will have absolute discretion to determine their uses.

Capitalization, page 35

12. Please revise to remove the caption relating to cash and cash equivalents from your presentation of capitalization, as cash and cash equivalents are not part of your capitalization.
13. We see that certain information in the pro forma data is not complete. We will continue our review of your pro forma data once you complete the disclosures. Please note that this comment also applies to your calculation of Dilution on page 37 and pro forma earnings per share presented on pages 9 and 40.
14. In this regard, please also revise to include detailed footnote disclosure quantifying and identifying each pro forma adjustment recorded along with an explanation of how each pro forma adjustment was calculated and determined for the pro-forma as adjusted column. As part of your revised disclosure, please include all relevant assumption used in such calculations. Please also apply this comment to your pro forma earnings per share calculations presented on pages 9 and 40.

Management's Discussion and Analysis, page 42

Comparison of Nine Months Ended July 1, 2011 to the Nine Months Ended July 2, 2010, page 46

15. We note that your discussion of the significant changes in revenues and gross margin does not *quantify* the specific reasons for material changes in the line items in the financial statements. For example, it is not clear why radar and avionics sales increased on the first paragraph on page 47 or why the product mix changed to higher margin products in the following paragraph. Revise the filing to discuss each significant factor that contributed to the changes, including offsetting factors, which should be separately quantified. Trends and uncertainties that may have a material impact upon revenues or operating results should also be discussed. A thorough analysis often will involve discussing both the intermediate effects of those matters and the reason underlying those intermediate effects associated with the material causes for the period over period change. In addition, separately describe and quantify the effects of changes in prices and volume of your product offerings on your operating results. Refer to Item 303(A)(3) of Regulation S-K. Please also apply this comment to your comparison of the results of operations for the fiscal years ended October 2, 2010, October 2, 2009 and September 30, 2008.

Contractual Obligations, page 54

16. Please tell us the basis on which you rely to exclude the obligations in footnote (1) from the table.

Share-based compensation, page 55

17. We note the disclosure on pages 58 to 60 whereby you discuss that as part of the determination of the estimated fair value of your common stock by your Board of Directors, you obtained valuations of your common stock. Please tell us whether, at each date of grant, you obtained a contemporaneous or retrospective valuation of your underlying common stock and whether it was performed by an unrelated valuation specialist as defined by the AICPA Practice Aid "Valuation of Privately-Held-Company Equity Securities Issued as Compensation" (the "Practice Aid").
18. In this regard, we noted a significant increase in the estimated fair value of your common shares between July and August 2010 and February 2011. Please expand your discussion to provide more specific details of the underlying factors and events, which caused this increase. In addition to describing these factors, please also revise the disclosure to relate those factors mentioned to changes in assumptions underlying the valuation methodology. Describe those significant intervening events within the company and changes in assumptions that occurred.

Quantitative and Qualitative Disclosure about Market Risk, page 62

19. Please provide quantitative disclosure.

Business, page 63

20. Please provide the complete description of the general development of your business for the past five years required by Item 101(a) of Regulation S-K. Include in your description the material terms of each merger or acquisition within the past five years. Please also discuss the decision to make a public offering at this time in light of your recent issuance of Series B Preferred Stock.

Industry, page 64

21. Please provide us with copies of the reports of Cisco Visual Networking, Strategy Analytics, the Teal Group and IC Insights where they make the statements that you cite in this section. Clearly mark the supporting statements in the supplemental materials.
22. Please tell us whether the industry reports that you cite are publicly available for no or nominal fee. If not, please file a consent of the author pursuant to Rule 436 of the Securities Act of 1933.

Sales and Marketing, page 73

23. Please disclose the principal locations worldwide in which you sell your products and describe your agreements with your principal distributors, including duration and material termination provisions.

Intellectual Property, page 74

24. We note your references in this section to licenses. Please disclose the terms of the licenses, including duration, termination provisions and material obligations of the parties. File material licenses as exhibits to your registration statement.

Export Regulations, page 77

25. If material, please disclose the portion of your products that are subject to the regulations disclosed in this section. Also, clarify whether you possess all applicable export licenses.

Legal Proceedings, page 77

26. Please explain more clearly the basis for the claims asserted by GigOptix.

Executive Compensation..., page 85

Annual Cash Incentives, page 87

27. Please clarify how the maximum target cash incentive award opportunities were determined including your references to custom and practice and internal pay equity considerations in the first paragraph of this section.

Long-Term Equity Incentives, page 89

28. We note minimal, if any, discussion and analysis as to how the annual stock option grants were determined. Please include substantive analysis and insight into how your Board made its stock option grant determinations with respect to each named executive officer. Refer to subparagraphs (b)(1)(iii) and (v) of Item 402 of Regulation S-K. For example, please discuss and analyze how the Board determined the actual number of shares underlying the stock options that were awarded to your named executive officers and how and why those awards varied among the named executive officers.

Sale of Class B Convertible Preferred Stock and Warrants, page 103

29. Please identify the investment funds referenced in the first paragraph and clarify the relationships between Peter Chung and each of those funds. Also, clarify the relationship between Mainsail Partners and the Summit funds. If there is no relationship between those entities disclose the number of shares of Class B convertible preferred stock and

warrants that were sold to the Summit funds and the funds with which Peter Chung has a relationship. Also, disclose the prices paid for such Class B securities.

Underwriting, page 116

30. We note that the underwriters have reserved shares for sale directly to your directors, officers, employees and certain other persons. Please tell us about the identity of the certain other persons.

Index to Financial Statements, page F-1

31. Consideration should be given on an ongoing basis to the updating requirements of Rule 3-12 of Regulation S-X. An updated accountant's consent should also be included with any amendment to the filing.

Note 1. Nature of Business and Basis of Presentation, page F-11

Revenue Recognition, page F-13

32. We note that because of the rights of return and price protection rights you grant to distributors, you defer recognizing revenue on sales made to distributors until the distributor sells the product to its third-party customers. We note that when you defer recognizing revenue, "you defer both the revenue and related cost of revenue." Please address the following:
- Tell us and revise the footnote to clarify how you treat each element of the transaction, include sales, cost of sales and inventory.
 - Explain how that accounting treatment is consistent with FASB ASC 605-15-25-1.
 - If you defer these costs, tell us and revise future filings to disclose how the deferred costs are presented on your balance sheet.
 - Describe to us the methodology, if any, employed to evaluate that asset for impairment and the authoritative literature in US GAAP on which you base that policy.
 - Specifically disclose why you defer revenue - i.e., (i) you are unable to estimate the amount of products that could be returned and (ii) because of the price discounts you frequently provide to your distributors, the ultimate sales price of your transactions with distributors is not fixed or determinable until the distributors has sold to the end-user.
 - Disclose the significant terms of your sales arrangement with distributors, including a brief summary of the return rights and price protection or price concession rights you grant them; the situations under which the distributors may exercise those rights; whether returns or price discounts credits are capped to a certain percentage of sales price or margins; and whether any of your

arrangements with distributors would allow or require you to grant price discounts below the cost of the product.

- To the extent you present both the deferred costs of sales and the deferred gross revenue within the deferred revenue current liability caption of the balance sheet, please explain how that presentation complies with paragraph 45-1 of FASB ASC 210-20, which permits the offsetting of assets and liabilities only when a legal right of setoff exists.
- In this regard, please tell us the amounts of gross deferred revenues and gross deferred costs of sales presented in the deferred revenue caption of your balance sheets as of each period presented.

Note 3. Mergers and Acquisitions, page F-17

Merger Under Common Control, page F-17

33. We note from your disclosure that on May 28, 2010 by means of a merger transaction, M/A-COM Holdings acquired Mimix, an entity under common control. Please provide us with the Mimix ownership percentage controlled and owned by the common majority owner of Mimix and MA-COM Holdings before and after this merger, and explain to us how you accounted for the acquisition of this additional ownership percentage. Please provide reference to the supporting authoritative literature, which supports your accounting.

Acquisition of M/A-Com Tech Business, page F-18

34. We see that as part of your acquisition of M/A-Com Tech Business, you recorded a gain on bargain purchase of approximately \$27 million. Please describe for us the aspects of the acquisition that lead to such a significant difference between the net assets acquired and the total consideration. In this regard, please tell us how you applied paragraphs 25-4 and 30-4 through 30-6 of FASB ASC 805-30 in determining that the gain on bargain purchase was properly recorded.

Note 16. Share-based Compensation Plans, page F-32

35. Please revise your disclosure to include in the notes to your financial statements the following information for equity instruments granted during the 12 months prior to the date of the most recent balance sheet included in your registration statement:
- For each grant date, along with the number of options or shares granted, please provide the exercise price, the fair value of the common stock, and the intrinsic value, if any, per option;
 - Whether the valuation used to determine the fair value of the equity instruments was contemporaneous or retrospective; and
 - If the valuation specialist was a related party, a statement indicating that fact.

Note 17. Preferred Stock, page F-34

36. We see that in December 2010, you authorized and issued 34,169,559.75 shares of Class B convertible preferred stock to new investors for \$120 million in gross proceeds along with the issuance of warrants to purchase 5,125,434 shares. As part of that issuance, you recorded the redeemable preferred stock outside of permanent equity as mezzanine equity, and recorded the bifurcated fair value of the conversion liability and the warrants as liabilities. For each of the preferred stock, conversion liability and warrant derivative liability, please provide us a detailed assessment of the instrument, its significant features, and the authoritative accounting literature, which supports your accounting for that instrument. Specifically, please identify for us why the preferred stock is recorded within mezzanine equity, why the conversion liability was required to be bifurcated and identify the specific dilutive features of the warrant agreement, which triggered liability treatment. Provide reference to the supporting authoritative accounting literature, which supports your initial allocation of the proceeds of this offering. In this regard, please revise the filing to, at a minimum, provide the material terms of the agreements, which specifically resulted in the mezzanine and liability treatment for each of the instruments.
37. In this regard, please clarify for us how the Accretion to redemption value of redeemable preferred stock and preferred stock dividends of approximately \$79 million as disclosed on page F-5 was calculated and valued.

Note 22. Unaudited Pro Forma Net Income (Loss) Per Share, page F-40

38. We see that you are presenting the supporting calculation for the pro forma basic and diluted net income (loss) per share to give effect to the conversion of preferred shares to common stock, participating preferred dividends, and other related transactions, and that the pro forma data is not yet complete. When you completed this disclosure, please include details of how the pro forma net loss per common share – basic and diluted amounts was calculated for the fiscal year ended October 1, 2010 and your latest interim period presented. Your disclosure should include details of all relevant assumptions used in such calculation. Your disclosure should also include the conversion terms in your assumptions and supporting calculations for how the preference payment was determined. In this regard, please provide similar supporting information for the Pro Forma balance sheet when included in the filing. We will review this disclosure when completed.
39. In a related matter, we note from your disclosure on page F-37 that on January 4, 2011 you declared and paid a special dividend of \$80 million to Class A and common stockholders of record on that date. In this regard, please tell us if you plan to provide the disclosures outlined in SAB Topic 1B.3 as it relates to this \$80 million dividend distribution.

Note 24. Geographic and Significant Customer Information, page F-41

40. We note discussion throughout the filing, including the marketing material at the beginning of the Preliminary Prospectus, MD&A beginning on page 42 and your business description beginning on page 63, which references that you serve your customers in three diverse primary markets, Networks, A&D, and Multi-Market. We additionally note that you provide and analyze discrete sales information for each of these markets on pages 46 and 47 within MD&A. We also see the disclosure here that you have concluded that you only have one reportable operating segment. Please describe for us how you have assessed whether these separate markets represent operating segments or reportable segments as defined in FASB ASC 280-10-50. Please describe for us what types of operating results and discrete financial information is available for each of the primary markets you serve and how your chief operating decision maker uses that information. Refer to paragraphs 50-1 to 50-19 of FASB ASC 280-10 as part of your response.

Exhibits and Financial Statement Schedules, page II-3

41. Please file complete agreements under Item 601(b)(10) of Regulation S-K. We note, for example, that Exhibits 2.1, 2.2 and 10.15 are missing attachments, exhibits or schedules.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3212 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan, Staff Attorney, at (202) 551-3269 or Amanda Ravitz, Assistant Director, at (202) 551-3528 with any other questions.

Sincerely

/s/ Jeffrey Jaramillo

Jeffrey Jaramillo
Accounting Branch Chief

cc (via e-mail): Jason Day, Esq.
Perkins Coie LLP