

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**M/A-COM TECHNOLOGY SOLUTIONS HOLDINGS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**27-0306875**  
(I.R.S. Employer  
Identification Number)

**100 Chelmsford Street  
Lowell, MA 01851**  
(Address of principal executive offices, including zip code)

M/A-COM TECHNOLOGY SOLUTIONS HOLDINGS, INC. AMENDED AND RESTATED 2009 OMNIBUS STOCK PLAN  
M/A-COM TECHNOLOGY SOLUTIONS HOLDINGS, INC. 2012 OMNIBUS INCENTIVE PLAN  
M/A-COM TECHNOLOGY SOLUTIONS HOLDINGS, INC. 2012 EMPLOYEE STOCK PURCHASE PLAN  
(Full title of the plans)

**Charles Bland  
Chief Executive Officer  
M/A-COM Technology Solutions Holdings, Inc.  
100 Chelmsford Street  
Lowell, MA 01851  
(978) 656-2500**  
(Name, address and telephone number, including area code, of agent for service)

*Copy to:*

**Jason Day  
Perkins Coie LLP  
1900 Sixteenth Street, Suite 1400  
Denver, CO 80202-5255  
(303) 291-2300**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

<b>Title of securities to be registered</b>	<b>Amount to be registered (1)</b>	<b>Proposed maximum offering price per share</b>	<b>Proposed maximum aggregate offering price</b>	<b>Amount of registration fee</b>
Common Stock, \$0.001 par value per share, under the:				
M/A-COM Technology Solutions Holdings, Inc. Amended and Restated 2009 Omnibus Stock Plan	2,154,950 (2)	\$1.29 (5)	\$2,779,886	\$319
M/A-COM Technology Solutions Holdings, Inc. 2012 Omnibus Incentive Plan	8,250,200 (3)	\$19.00 (6)	\$156,753,800	\$17,964
M/A-COM Technology Solutions Holdings, Inc. 2012 Employee Stock Purchase Plan	1,000,000 (4)	\$16.15 (7)	\$16,150,000	\$1,851
<b>Total</b>	<b>11,405,150</b>			<b>\$20,134 (8)</b>

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional shares of the registrant's common stock that may become issuable under the Amended and Restated 2009 Omnibus Stock Plan (the "2009 Plan"), the 2012 Omnibus Incentive Plan (the "2012 Plan") and the 2012 Employee Stock Purchase Plan (the "2012 ESPP") as a result of any future stock splits, stock dividends or similar adjustments of the registrant's outstanding common stock.
- (2) Represents common stock issuable upon exercise of options outstanding under the 2009 Plan as of the date of this Registration Statement.
- (3) Shares of common stock reserved for issuance under the 2012 Plan consist of (a) 4,500,000 shares of common stock to be issued under the 2012 Plan plus (b) 3,750,200 shares of common stock previously reserved but unissued under the 2009 Plan that are now available for issuance under the 2012 Plan. To the extent that awards outstanding under the 2009 Plan as of the date of this registration statement expire or are forfeited, cancelled, surrendered or terminated without issuance of shares, the shares subject to such awards will be available for future issuance under the 2012 Plan.
- (4) Represents shares of common stock reserved for future issuance under the 2012 ESPP.
- (5) Estimated in accordance with Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee based upon the weighted average exercise price per share for outstanding stock option awards under the 2009 Plan.
- (6) Estimated in accordance with Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee based on the initial public offering price of \$19.00.
- (7) Estimated in accordance with Rule 457(h) of the Securities Act solely for the purpose of calculating the registration fee based on 85% of the initial public offering price of \$19.00. Pursuant to the 2012 ESPP, which plan is incorporated by reference herein, the purchase price of the shares of common stock to be issued thereunder will be 85% of the lower of the fair market value of the common stock on the first trading day of the offering period or on the last day of the offering period.
- (8) Pursuant to Rule 457(p) under the Securities Act, \$11,482 of the registration fee for this Registration Statement is being offset by the registration fees paid in connection with the unsold securities by the registrant under the Registration Statement on Form S-1, as amended (File No. 333-175934) initially filed on August 1, 2011.

**PART II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference.**

The following documents filed by the registrant with the Securities and Exchange Commission (the "Commission") are hereby incorporated by reference in this registration statement:

(a) the registrant's prospectus filed on March 15, 2012, pursuant to Rule 424(b) under the Securities Act, relating to the registrant's registration statement on Form S-1, as amended (Registration No. 333-175934), which contains the registrant's audited financial statements for the latest fiscal year for which such statements have been filed; and

(b) the description of the registrant's common stock contained in the registrant's registration statement on Form 8-A (Registration No. 001-35451), filed on March 9, 2012, pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

All documents filed by the registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date hereof, and prior to the filing of a post-effective amendment that indicates that all the securities offered hereby have been sold or that deregisters the securities offered hereby then remaining unsold, shall also be deemed to be incorporated by reference into this registration statement and to be a part hereof from the date of filing of such documents; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference in this registration statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law (the "DGCL") provides, in effect, that any person made a party to any action by reason of the fact that he is or was a director, officer, employee or agent of us may and, in some cases, must be indemnified by us against, in the case of a non-derivative action, judgments, fines, amounts paid in settlement and reasonable expenses (including attorneys' fees) incurred by him as a result of such action and in the case of a derivative action, against expenses (including attorneys' fees), if in either type of action he acted in good faith and in a manner he reasonably believed to be in or not opposed to our best interests. This indemnification does not apply, in a derivative action, to matters as to which it is adjudged that the director, officer, employee or agent is liable to us, unless upon court order it is determined that, despite such adjudication of liability, but in view of all the circumstances of the case, he is fairly and reasonably entitled to indemnity for expenses and, in a non-derivative action, to any criminal proceeding in which such person had no reasonable cause to believe his conduct was unlawful.

The registrant's certificate of incorporation provides that no director shall be liable to the registrant or its stockholders for monetary damages for breach of fiduciary duty as a director to the fullest extent permitted by the DGCL. The registrant's bylaws require it to indemnify its directors and officers to the fullest extent permitted by Delaware law. The registrant has entered into indemnification agreements with all of its directors and executive officers and has purchased directors' and officers' liability insurance.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

<u>Exhibit Number</u>	<u>Description of Document</u>
4.1	Fourth Amended and Restated Certificate of Incorporation of M/A-COM Technology Solutions Holdings, Inc. (incorporated by reference to Exhibit 3.3 to the Registration Statement on Form S-1/A filed on February 28, 2012 (File No. 333-175934))
4.2	Second Amended and Restated Bylaws of M/A-COM Technology Solutions Holdings, Inc. (incorporated by reference to Exhibit 3.4 to the Registration Statement on Form S-1/A filed on February 28, 2012 (File No. 333-175934))
10.1	M/A-COM Technology Solutions Holdings, Inc. Amended and Restated 2009 Omnibus Stock Plan (incorporated by reference to Exhibit 10.2 to the Registration Statement on Form S-1 filed on August 1, 2011 (File No. 333-175934))
10.2	M/A-COM Technology Solutions Holdings, Inc. 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registration Statement on Form S-1/A filed on February 10, 2012 (File No. 333-175934))
10.3	M/A-COM Technology Solutions Holdings, Inc. 2012 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.8 to the Registration Statement on Form S-1/A filed on February 10, 2012 (File No. 333-175934))
5.1+	Opinion of Perkins Coie LLP regarding legality of the common stock being registered
23.1+	Consent of Deloitte & Touche LLP, independent registered public accounting firm
23.2+	Consent of Deloitte & Touche LLP, independent auditors
23.3+	Consent of Perkins Coie LLP (included in opinion filed as Exhibit 5.1)
24.1+	Power of Attorney (see signature page)

+ Filed herewith.

**Item 9. Undertakings.**

A. The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(a) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(b) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement; and

(c) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

*provided, however,* that paragraphs (1)(a) and (1)(b) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

B. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that, in the opinion of the Commission, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Lowell, State of Massachusetts, on March 19, 2012.

**M/A-COM TECHNOLOGY SOLUTIONS  
HOLDINGS, INC.**

By:  /s/ Charles Bland  
Name: Charles Bland  
Title: Chief Executive Officer

**POWER OF ATTORNEY**

Each person whose signature appears below constitutes and appoints Charles R. Bland and Conrad Gagnon, or any of them, as his or her attorneys-in-fact, with the power of substitution, for him or her in any and all capacities, to sign any amendments to this registration statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated below on March 19, 2012.

<u>Signature</u>	<u>Title</u>
<u>/s/ Charles Bland</u> Charles Bland	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Conrad Gagnon</u> Conrad Gagnon	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ John Ocampo</u> John Ocampo	Chairman of the Board
<u>/s/ Susan Ocampo</u> Susan Ocampo	Director
<u>/s/ Peter Chung</u> Peter Chung	Director
<u>/s/ Gil Van Lunsen</u> Gil Van Lunsen	Director

## EXHIBIT INDEX

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1900 Sixteenth Street, Suite 1400  
Denver, CO 80202-5255  
PHONE: 303.291.2300  
FAX: 303.291.2400  
www.perkinscoie.com

March 19, 2012

M/A-COM Technology Solutions Holdings, Inc.  
100 Chelmsford Street  
Lowell, MA 01851

Re: Registration Statement on Form S-8 of Shares of Common Stock,  
\$0.001 par value, of M/A-COM Technology Solutions Holdings, Inc. (the "Company")

Ladies and Gentlemen:

We have acted as counsel to you in connection with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"), which you are filing with the Securities and Exchange Commission with respect to up to 11,405,150 shares of common stock, \$0.001 par value, of the Company (the "Shares"), which may be issued as follows: (a) up to 2,154,950 Shares issuable upon exercise of options under the Amended and Restated 2009 Omnibus Stock Plan (the "2009 Plan"), (b) 8,250,200 Shares to be issued under the Company's 2012 Omnibus Incentive Plan (the "2012 Plan"), and (c) 1,000,000 Shares reserved for future issuance under the 2012 Employee Stock Purchase Plan (the "2012 ESPP", which together with the 2009 Plan and 2012 Plan, are referred to herein as the "Plans").

We have examined the Registration Statement and such documents and records of the Company as we have deemed necessary for the purpose of this opinion. In giving this opinion, we are assuming the authenticity of all instruments presented to us as originals, the conformity with originals of all instruments presented to us as copies and the genuineness of all signatures.

Based upon and subject to the foregoing, we are of the opinion that any Shares that may be issued pursuant to the Plans have been duly authorized and that, upon the due execution by the Company of any certificates representing the Shares, the registration by its registrar of such Shares and the sale thereof by the Company in accordance with the terms of the Plans, and the receipt of consideration therefor in accordance with the terms of the Plans, such Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ PERKINS COIE LLP



**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated November 23, 2011 (except Note 25, dated March 9, 2012), relating to the consolidated financial statements of M/A-COM Technology Solutions Holdings, Inc. (the "Company") (which report expresses an unqualified opinion on the consolidated financial statements and includes an explanatory paragraph referring to the common control business combination of M/A-COM Technology Solutions Holdings, Inc. and Mimix Holdings, Inc.) appearing in the Prospectus dated March 14, 2012 filed by the Company, pursuant to Rule 424(b) under the Securities Act of 1933, relating to the Company's Registration Statement No. 333-175934.

*/s/ Deloitte & Touche LLP*

Boston, Massachusetts  
March 19, 2012

**CONSENT OF INDEPENDENT AUDITORS**

We consent to the incorporation by reference in this Registration Statement on Form S-8 of M/A-COM Technology Solutions Holdings, Inc. of our report dated August 1, 2011 related to the combined consolidated financial statements of M/A-COM Technology Solutions Inc. and M/ACOM Technology Solutions (Cork) Limited (collectively, the “Company”) for the period from September 26, 2008 through March 30, 2009 (which report expresses an unqualified opinion on the combined consolidated financial statements and includes explanatory paragraphs referring to affiliation with Cobham Defense Electronic Systems Corporation and the impact of such affiliation on the results of operations and the sale of the Company to M/A-COM Technology Solutions Holdings, Inc. on March 30, 2009), appearing in the Prospectus dated March 14, 2012 filed by M/A-COM Technology Solutions Holdings, Inc., pursuant to Rule 424(b) under the Securities Act of 1933, relating to Registration Statement No. 333-175934.

*/s/ Deloitte & Touche LLP*

Boston, Massachusetts

March 19, 2012