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

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

MACOM 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)

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC. 2012 OMNIBUS INCENTIVE PLAN
MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC. 2012 EMPLOYEE STOCK PURCHASE PLAN
(Full title of the plans)

John Croteau
Chief Executive Officer
MACOM 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:
Marko Zatylny
Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199-3600
(617) 951-7000

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share (4)	Proposed maximum aggregate offering price (4)	Amount of registration fee
Common Stock, \$0.001 par value per share, under the:				
MACOM Technology Solutions Holdings, Inc. 2012 Omnibus Incentive Plan (as amended and restated)	1,900,000 (2)	\$46.63	\$88,597,000.00	\$10,268.39
MACOM Technology Solutions Holdings, Inc. 2012 Employee Stock Purchase Plan (as amended and restated)	550,000 (3)	\$46.63	\$25,646,500.00	\$2,972.43
Total	2,450,000			\$13,240.82

- (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 MACOM Technology Solutions Holdings, Inc. 2012 Omnibus Incentive Plan (as amended and restated) (the "2012 Plan") and the MACOM Technology Solutions Holdings, Inc. 2012 Employee Stock Purchase Plan (as amended and restated) (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 shares of common stock reserved for future issuance under the 2012 Plan.
 - (3) Represents shares of common stock reserved for future issuance under the 2012 ESPP.
 - (4) Estimated solely for the purpose of calculating the registration fee in accordance with Rules 457(h) and 457(c) under the Securities Act, based upon the average of the high and low prices of the Common Stock on March 1, 2017 (which is within five business days prior to the date of this filing), as reported on the NASDAQ Global Select Market.
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EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed to register an additional 1,900,000 shares under the Registrant's 2012 Omnibus Incentive Plan (as amended and restated) and an additional 550,000 shares under the Registrant's 2012 Employee Stock Purchase Plan (as amended and restated). Pursuant to Instruction E to Form S-8, the Registrant incorporates by reference, except to the extent supplemented, amended or superseded by the information set forth herein, into this Registration Statement the entire contents of its Registration Statement on Form S-8 (File No. 333-209610) filed with the Securities and Exchange Commission on February 19, 2016 and its Registration Statement on Form S-8 (File No. 333-180219) filed with the Securities and Exchange Commission on March 19, 2012.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit Number	Description of Document
4.1	Fifth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on June 2, 2016)
4.2	Third Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on June 2, 2016)
10.1	MACOM Technology Solutions Holdings, Inc. 2012 Omnibus Incentive Plan (as amended and restated) (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on April 27, 2016)
10.2	MACOM Technology Solutions Holdings, Inc. 2012 Employee Stock Purchase Plan (as amended and restated) (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly report on Form 10-Q filed on February 2, 2015)
5.1+	Opinion of Ropes & Gray LLP regarding legality of the common stock being registered
23.1+	Consent of Deloitte & Touche LLP
23.2+	Consent of Ropes & Gray LLP (included in opinion filed as Exhibit 5.1)
24.1+	Power of Attorney (see signature page)

+ Filed herewith

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 2, 2017.

MACOM TECHNOLOGY SOLUTIONS HOLDINGS, INC.

By: /s/ John Croteau
Name: John Croteau
Title: President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints John Croteau and Robert McMullan, 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 2, 2017.

Signature	Title
<u>/s/ John Croteau</u> John Croteau	President, Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Robert McMullan</u> Robert McMullan	Senior Vice President and 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
<u>/s/ Charles Bland</u> Charles Bland	Director
<u>/s/ Stephen G. Daly</u> Stephen G. Daly	Director

EXHIBIT INDEX

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ROPES & GRAY LLP
PRUDENTIAL TOWER
800 BOYLSTON STREET
BOSTON, MA 02199-3800
WWW.ROPESGRAY.COM

March 2, 2017

MACOM Technology Solutions Holdings, Inc.
100 Chelmsford Street
Lowell, MA 01851

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with the registration statement on Form S-8 (the "Registration Statement"), filed by MACOM Technology Solutions Holdings, Inc., a Delaware corporation (the "Company"), on the date hereof, with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), for the registration of 2,450,000 shares of Common Stock, \$0.001 par value, of the Company (the "Shares"). The Shares are issuable under the Company's 2012 Omnibus Incentive Plan (as amended and restated) (the "2012 Plan") and the Company's 2012 Employee Stock Purchase Plan (as amended and restated) (the "2012 ESPP"), together with the 2012 Plan, the "Plans", and each individually, a "Plan").

We are familiar with the actions taken by the Company in connection with the adoption of each of the 2012 Plan and the 2012 ESPP. We have examined such certificates, documents and records and have made such investigation of fact and such examination of law as we have deemed appropriate in order to enable us to render the opinions set forth herein. In conducting such investigation, we have relied, without independent verification, upon certificates of officers of the Company, public officials and other appropriate persons.

The opinions expressed below are limited to the Delaware General Corporation Law.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized and, when the Shares have been issued and sold in accordance with the terms of the applicable Plan, the Shares will be validly issued, fully paid and nonassessable.

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

Very truly yours,

/s/ Ropes & Gray LLP

Ropes & Gray 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 reports relating to the consolidated financial statements of MACOM Technology Solutions Holdings, Inc. (the "Company") and the effectiveness of the Company's internal control over financial reporting dated November 17, 2016 appearing in the Annual Report on Form 10-K of the Company for the year ended September 30, 2016.

/s/ Deloitte & Touche LLP

Boston, MA

March 1, 2017