

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

FORM S-8

**REGISTRATION STATEMENT
Under The Securities Act of 1933**

HARMONIC INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

77-0201147
(I.R.S. Employer Identification Number)

549 Baltic Way, Sunnyvale, CA 94089
(Address, including zip code, of principal executive offices)

1995 Stock Plan
2002 Director Stock Plan
(Full title of the plan(s))

Robin N. Dickson, Chief Financial Officer
Harmonic Inc.
549 Baltic Way, Sunnyvale, CA 94089
(408) 542-2500
(Name and address of agent for service, telephone number, including area code, of agent for service)

Copies to:
Robert G. Day
Wilson Sonsini Goodrich & Rosati
650 Page Mill Road, Palo Alto, CA 94304
(650) 493-9300

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 Smaller reporting company
(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(2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee(3)(4)
Common Stock (par value \$0.001 per share) to be issued under the Harmonic Inc. 1995 Stock Plan	10,600,000	\$ 5.54	\$ 58,724,000	\$ 4,187
Common Stock (par value \$0.001 per share) to be issued under the Harmonic Inc. 2002 Director Stock Plan	400,000	\$ 5.54	\$ 2,216,000	\$ 158

1. Represents the additional number of shares of Common Stock reserved for issuance pursuant to the registrant's 1995 Stock Plan, (the "1995 Plan") and the 2002 Director Stock Plan, (the "2002 Director Plan"), as amended. Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement on Form S-8 is deemed to include additional shares of the registrant's Common Stock to be offered or issued pursuant to the antidilution provisions of the 1995 Plan and 2002 Director Plan.

2. The Proposed Maximum Offering Price Per Share was estimated in accordance with Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee, and is based on the price of \$5.54 per share, which was the average of the high and low prices per share of the registrant's Common Stock as reported on the NASDAQ Global Select Market on May 25, 2010.
 3. The Amount of Registration Fee was calculated pursuant to Section 6(b) of the Securities Act, which states that the adjusted fee rate for fiscal 2010 shall be "\$71.30 per \$1 million" of the maximum aggregate price at which such securities are proposed to be offered. The registration fee is therefore calculated by multiplying the Proposed Maximum Aggregate Offering Price by 0.0000713.
 4. The registrant is paying an aggregate registration fee of \$4,345 for the registration of 11,000,000 shares of Common Stock hereunder.
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TABLE OF CONTENTS

PART II

[Item 3. Incorporation of Documents by Reference](#)

[Item 4. Description of Securities](#)

[Item 5. Interests of Named Experts and Counsel](#)

[Item 6. Indemnification of Directors and Officers](#)

[Item 7. Exemption from Registration Claimed](#)

[Item 8. Exhibits](#)

[Item 9. Undertakings](#)

[Signatures](#)

[INDEX TO EXHIBITS](#)

[EX-5.1](#)

[EX-23.1](#)

PART II

Information Required in the Registration Statement

Item 3. Incorporation of Documents by Reference.

The following documents, previously filed by Harmonic Inc. (the “Registrant”) with the Securities and Exchange Commission (the “SEC”), are hereby incorporated by reference in this registration statement on Form S-8 (the “Registration Statement”) (other than information in a report or document that is “furnished” and not “filed” pursuant to the SEC rules and regulations applicable to such report or document, and, except as may be noted in any such report or document, exhibits included with such report or document that are related to such information):

1. The Registrant’s Annual Report on Form 10-K for the year ended December 31, 2009 filed with the SEC on March 1, 2010;
2. The Registrant’s Current Report on Form 8-K filed with the SEC on February 4, 2010;
3. The Registrant’s Definitive Proxy Statement on Schedule 14A filed with the SEC on April 9, 2010;
4. The Registrant’s Definitive Additional Materials on Schedule 14A filed with the SEC on April 9, 2010;
5. The Registrant’s Current Report on Form 8-K filed with the SEC on May 6, 2010;
6. The Registrant’s Current Report on Form 8-K filed with the SEC on May 10, 2010;
7. The Registrant’s Quarterly Report on Form 10-Q for the three months ended April 2, 2010 filed with the SEC on May 12, 2010; and
8. The Registrant’s Current Report on Form 8-K filed with the SEC on May 21, 2010.

In addition, the Registrant hereby incorporates by reference into this Registration Statement the description of the Registrant’s common stock, par value \$0.001 per share (the “Common Stock”), contained in the Registrant’s registration statement on Form 8-A, dated April 6, 1995, as filed with the SEC pursuant to Section 12 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 with the SEC by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Registration Statement and prior to the filing of a post-effective amendment indicating that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the issuance of the shares of the Registrant’s Common Stock offered hereby has been passed upon by Wilson Sonsini Goodrich & Rosati, Professional Corporation (“WSGR”). Certain members and employees of WSGR beneficially own shares of the Registrant’s Common Stock. Jeffrey D. Saper, a member of WSGR, owns 6,484 shares of the Registrant’s Common Stock.

Item 6. Indemnification of Directors and Officers.

Reference is made to Section 102(b)(7) of the Delaware General Corporation Law (the “DGCL”), which enables a corporation in its original certificate of incorporation or an amendment to its certificate of incorporation to eliminate or limit the personal liability of a director for monetary damages for violations of the director’s fiduciary duty, except (1) for any breach of a director’s duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) pursuant to Section 174 of the DGCL, providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemption, or (4) for any transaction from which a director derived an improper personal benefit.

Reference is also made to Section 145 of the DGCL which provides that a corporation may indemnify any persons, including officers and directors, who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of the corporation, by reason of the fact that the person was an officer, director, employee or agent of the corporation, or is or was serving at the request of the corporation or other enterprise. The indemnity may include expenses, including attorneys’ fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with the action, suit or proceeding, provided the officer, director, employee or agent acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation’s best interests and, for a criminal proceeding, had no reasonable cause to believe that his conduct was unlawful. A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses, including attorneys’ fees, which the officer or director actually and reasonably incurred.

The Amended and Restated Certificate of Incorporation of the Registrant and the Amended and Restated Bylaws of the Registrant provide for the indemnification of officers and directors to the fullest extent permitted by applicable law.

In addition, the Registrant has entered into agreements with its officers and directors that provide for their indemnification with respect to certain matters, in addition to indemnification provided for in its Amended and Restated Bylaws. These agreements, among other things, indemnify the Registrant’s officers and directors for certain expenses (including attorneys’ fees), judgments, fines and settlement amounts incurred by any such person in any action or proceeding, including any action by or in the right of the Registrant, arising out of such person’s services as an officer or director of the Registrant, any subsidiary of the Registrant or any other company or enterprise to which the person provides services at the Registrant’s request. The Registrant also maintains an insurance policy insuring the Registrant’s officers and directors against liability for certain acts and omissions while acting in their official capacities.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description of Exhibit
10.1*	Harmonic Inc. 1995 Stock Plan
10.2**	Harmonic Inc. 2002 Director Stock Plan
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation, as to the legality of securities being registered
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm
23.4	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature page to this registration statement)

* Previously filed as Exhibit 1 to the Company’s Definitive Proxy Statement, dated April 9, 2010.

** Previously filed as Exhibit 2 to the Company’s Definitive Proxy Statement, dated April 9, 2010.

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:

- (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the “Securities Act”);
- (ii) 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. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective Registration Statement;
- (iii) 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 (a)(1)(i) and (a)(1)(ii) 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 SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the 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 Section 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 SEC 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 Sunnyvale, State of California, on May 28, 2010.

HARMONIC INC.

By: /s/ Patrick J. Harshman
Patrick J. Harshman
President & Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Patrick J. Harshman and Robin N. Dickson, jointly and severally, his attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any amendments to this registration statement on Form S-8, and to file the same, with exhibits thereto and other documents in connection therewith, with the SEC, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Patrick J. Harshman</u> (Patrick J. Harshman))	Chief Executive Officer (Principal Executive Officer)	May 28, 2010
<u>/s/ Robin N. Dickson</u> (Robin N. Dickson)	Chief Financial Officer (Principal Financial and Accounting Officer)	May 28, 2010
<u>/s/ Lewis Solomon</u> (Lewis Solomon)	Chairman of the Board	May 28, 2010
<u>/s/ Harold Covert</u> (Harold Covert)	Director	May 28, 2010
<u>/s/ Patrick Gallagher</u> (Patrick Gallagher)	Director	May 28, 2010
<u>/s/ Floyd Kvamme</u> (E. Floyd Kvamme)	Director	May 28, 2010
<u>/s/ Anthony J. Ley</u> (Anthony J. Ley)	Director	May 28, 2010
<u>/s/ William Reddersen</u> (William Reddersen)	Director	May 28, 2010
<u>/s/ David Van Valkenburg</u> (David Van Valkenburg)	Director	May 28, 2010

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May 28, 2010

Harmonic Inc.
549 Baltic Way
Sunnyvale, California 94089

Re: Registration Statement on Form S-8

Gentlemen:

We have examined the registration statement on Form S-8 filed by Harmonic Inc. (“you” or the “Company”) with the Securities and Exchange Commission on or about May 28, 2010 (the “Registration Statement”), in connection with the registration under the Securities Act of 1933, as amended, of (i) 10,600,000 shares of the Company’s common stock, par value \$0.001 per share (the “1995 Shares”), under the Company’s 1995 Stock Plan (the “1995 Plan”); and (ii) 400,000 shares of the Company’s common stock, par value \$0.001 per share (the “2002 Shares,” and together with the 1995 Shares, the “Shares”), under the Company’s 2002 Director Stock Plan (the “2002 Plan,” and together with the 1995 Plan, the “Plans”). As your counsel in connection with this transaction, we have examined the proceedings taken and are familiar with the proceedings proposed to be taken by you in connection with the issuance and sale of the Shares pursuant to the Plans.

It is our opinion that, when issued and sold in the manner described in the Plans and pursuant to the agreements which accompany each grant under the respective Plan, the Shares will be legally and validly issued, fully paid and non-assessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 1, 2010 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in Harmonic Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

San Jose, California

May 28, 2010