

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JUNE 6, 2000
REGISTRATION NO. 333-_____

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-4MEF
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)

3663
(Primary Standard
Industrial Classification
Code Number)

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

549 BALTIC WAY, SUNNYVALE, CA 94089
(408) 542-2500
(Address, including zip code, and telephone number, including area code,
of registrant's principal executive offices)

ANTHONY J. LEY
PRESIDENT AND CHIEF EXECUTIVE OFFICER
HARMONIC INC.
549 BALTIC WAY, SUNNYVALE, CA 94089
(408) 542-2500
(Name, address, including zip code, and telephone number, including area code,
of agent for service)

WITH COPIES TO:

LAWRENCE CALOF, ESQ.
STAN SZE, ESQ.
GIBSON, DUNN & CRUTCHER LLP
1530 PAGE MILL ROAD
PALO ALTO, CA 94304-1125
(650) 849-5300

LARRY W. SONSINI, ESQ.
KELLY BOYD, ESQ.
WILSON, SONSINI, GOODRICH & ROSATI
PROFESSIONAL CORPORATION
650 PAGE MILL ROAD
PALO ALTO, CA 94304-1050
(650) 493-9300

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: AS SOON AS
PRACTICABLE AFTER THE EFFECTIVE DATE OF THIS REGISTRATION STATEMENT WHICH
RELATES TO THE ISSUANCE OF COMMON STOCK OF HARMONIC INC. IN THE MERGER OF C-CUBE
MICROSYSTEMS INC. INTO HARMONIC INC. PURSUANT TO AN AMENDED AND RESTATED
AGREEMENT AND PLAN OF MERGER AND REORGANIZATION DATED AS OF DECEMBER 9, 1999.

If the securities being registered on this Form are being offered in connection
with the formation of a holding company and there is compliance with General
Instruction G, please check the following box. []

If this Form is filed to register additional securities for an offering pursuant
to Rule 462(b) under the Securities Act, check the following box and list the
Securities Act registration statement number of the earlier effective
registration statement for the same offering. [X] 333-33148

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under
the Securities Act, check the following box and list the Securities Act
registration statement number of the earlier effective registration statement
for the same offering. []

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. []

CALCULATION OF REGISTRATION FEE

SECURITIES TO BE REGISTERED TITLE OF EACH CLASS OF	AMOUNT TO BE REGISTERED (1)	PROPOSED MAXIMUM OFFERING PRICE PER SHARE	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (2)	AMOUNT OF REGISTRATION FEE (2)
Common Stock, \$.001 par value.....	1,628,775	N/A	\$31,783,174	\$8,391

- (1) The Registrant, Harmonic Inc. ("Harmonic") and C-Cube Microsystems Inc. ("C-Cube Microsystems"), previously filed a joint proxy/registration statement on Form S-4 (Commission File No. 333-33148) to cover 25,371,225 shares (the "Initial Shares") of Harmonic's common stock, \$.001 par value ("Harmonic Common Stock"), issuable in connection with the merger of C-Cube Microsystems into Harmonic. Harmonic is filing this registration statement on Form S-4MEF pursuant to Rule 462(b) with respect to an additional 1,628,775 shares of Harmonic Common Stock issuable in connection with the merger based on an increase in the estimated number of shares of common stock of C-Cube Microsystems outstanding at closing.
- (2) At the exchange ratio of 0.5427, 3,001,244 shares of C-Cube Microsystems common stock would be cancelled in the transaction in exchange for the additional 1,628,775 shares of Harmonic Common Stock registered hereby. The Proposed Maximum Aggregate Offering Price and the Amount of Registration Fee are based on this number of shares of C-Cube Microsystems common stock and, pursuant to Rule 457(f) under the Securities Act of 1933, as amended, the book value of such securities computed as of the latest practicable date prior to the date of filing the registration statement in the amount of \$10.59. Harmonic previously paid a registration fee of \$513,442 in connection with the registration of the Initial Shares. In accordance with Rule 457(a), the shares of C-Cube Microsystems common stock that would be cancelled in the transaction in exchange for the Initial Shares have been excluded from the calculation of the amount of the registration fee payable in connection with this registration statement.

2

Explanatory Note and Incorporation of Information by Reference

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and relates to the offering of shares of common stock of Harmonic Inc. ("Harmonic") in connection with its acquisition of C-Cube Microsystems Inc. as described in the joint proxy/registration statement on Form S-4, Registration No. 333-33148, as amended (the "Prior Registration Statement"). This Registration Statement is being filed to register an additional 1,628,775 shares of common stock of Harmonic for issuance in connection with that acquisition. The contents of the Prior Registration Statement, including all exhibits thereto, are hereby incorporated by reference.

EXHIBITS

- 5.1 Opinion of Gibson, Dunn & Crutcher LLP as to the legality of the securities being registered
- 8.1 Opinion of Gibson, Dunn & Crutcher LLP as to tax matters
- 8.2 Opinion of Wilson, Sonsini, Goodrich & Rosati, Professional Corporation as to tax matters
- 23.1 Consent of Deloitte & Touche LLP

- 23.2 Consent of PricewaterhouseCoopers LLP
- 23.3 Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1)
- 23.4 Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 8.1)
- 23.5 Consent of Wilson, Sonsini, Goodrich & Rosati, Professional Corporation (included in Exhibit 8.2)
- 24 Power of Attorney (Incorporated by reference to Harmonic's Registration Statement on Form S-4, File No. 333-33148)

3

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on June 6, 2000.

HARMONIC INC.

By: /s/ Anthony J. Ley

 Name: Anthony J. Ley
 Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ Anthony J. Ley ----- Anthony J. Ley	President and Chief Executive Officer (Principal Executive Officer)	June 6, 2000
* ----- Robin N. Dickson	Chief Financial Officer (Principal Financial and Accounting Officer)	June 6, 2000
* ----- Moshe Nazarathy	Director	June 6, 2000
* ----- E. Floyd Kvamme	Director	June 6, 2000
* ----- David A. Lane	Director	June 6, 2000
* ----- Barry D. Lemieux	Director	June 6, 2000
* ----- Michel L. Vaillaud	Director	June 6, 2000

* By: /s/ Anthony J. Ley

 Name: Anthony J. Ley
 Title: Attorney-In-Fact

EXHIBIT INDEX

- 5.1 Opinion of Gibson, Dunn & Crutcher LLP as to the legality of the securities being registered
- 8.1 Opinion of Gibson, Dunn & Crutcher LLP as to tax matters
- 8.2 Opinion of Wilson, Sonsini, Goodrich & Rosati, Professional Corporation as to tax matters
- 23.1 Consent of Deloitte & Touche LLP
- 23.2 Consent of PricewaterhouseCoopers LLP
- 23.3 Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1)
- 23.4 Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 8.1)
- 23.5 Consent of Wilson, Sonsini, Goodrich & Rosati, Professional Corporation (included in Exhibit 8.2)
- 24 Power of Attorney (Incorporated by reference to Harmonic's Registration Statement on Form S-4, File No. 333-33148)

June 2, 2000

(650) 849-5318

C 41507-00001

Harmonic Inc.
549 Baltic Way
Sunnyvale, CA 94089

Re: Registration Statement on Form S-4

Gentlemen:

We have acted as counsel for Harmonic, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") under Rule 462(b) of the Securities Act of 1933, as amended (the "Act"), of the above-captioned Registration Statement on Form S-4 (the "Registration Statement"), relating to the registration of 1,628,775 shares of the Company's Common Stock, par value \$.001 per share (the "Shares"). The Company proposes to issue the Shares in exchange for shares of C-Cube Microsystems Inc.'s ("C-Cube Microsystems") Common Stock, par value \$0.001 per share. In connection therewith, we have examined, among other things, the Registration Statement, as well as the proceedings and other actions taken by the Company in connection with the authorization of the Shares and such other matters as we deemed necessary for purposes of rendering this opinion.

Based on the foregoing, and in reliance thereon, we are of the opinion that (i) the Shares have been duly authorized and (ii) upon issuance of the Shares in connection with the merger of C-Cube Microsystems into the Company as described in the Registration Statement and the Prospectus constituting a part thereof (the "Prospectus"), the Shares will be validly issued, fully paid and non-assessable.

The Company is a Delaware corporation. We are not admitted to practice in Delaware. However, we are familiar with the Delaware General Corporation Law and have made such review thereof as we consider necessary for the purpose of this opinion. Subject to the foregoing, this opinion is limited to the present laws of the State of Delaware and to the present federal laws of the United States of America.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to this firm under the heading "Legal Matters" contained in the Prospectus. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Act or the General Rules and Regulations of the Securities and Exchange Commission.

Sincerely,

/s/ Gibson, Dunn & Crutcher LLP

Gibson, Dunn & Crutcher LLP

LC/SS/ss

[GIBSON, DUNN & CRUTCHER LLP LETTERHEAD]

June 5, 2000

(213) 229-7000

C 41507-00001

Harmonic Inc.
549 Baltic Way
Sunnyvale, California 94089

Re: Acquisition of C-Cube Microsystems Inc.

Ladies and Gentlemen:

We have acted as counsel to Harmonic Inc., a Delaware corporation ("HARMONIC"), in connection with the preparation and execution of the Amended and Restated Agreement and Plan of Merger and Reorganization (the "MERGER AGREEMENT"), dated as of December 9, 1999, by and between Harmonic and C-Cube Microsystems Inc., a Delaware corporation ("C-CUBE"). Pursuant to the Merger Agreement, C-Cube has merged with and into Harmonic, with Harmonic surviving the merger (the "MERGER"). The Merger and certain proposed transactions incident thereto are described in the Registration Statement on Form S-4 (the "REGISTRATION STATEMENT") of Harmonic, which includes the Joint Proxy Statement/Prospectus/Information Statement (the "JOINT PROXY STATEMENT") of C-Cube and Harmonic, that was filed with the Securities and Exchange Commission under the Securities Act of 1933 and which became effective on March 24, 2000.

You have requested our opinion regarding certain federal income tax consequences of the Merger. In rendering this opinion, we have assumed and relied upon (without any independent investigation):

1. The truth and accuracy of the statements, covenants, representations and warranties contained (a) in the Merger Agreement, (b) in the representations received from Harmonic and C-Cube (the "TAX REPRESENTATION LETTERS") that have been provided to us and dated as of May 3, 2000, and (c) in the Registration Statement;

2

Harmonic Inc.
June 5, 2000
Page 2

2. that the Merger was consummated in accordance with the Merger Agreement, without any waiver, breach or amendment of any material provisions of the Merger Agreement, the effectiveness of the Merger under applicable state law, and the performance of all covenants contained in the Merger Agreement and the Tax Representation Letters without waiver or breach of any material provisions thereof, in each case except as otherwise provided in the Waiver Agreement entered into between Harmonic and C-Cube as of April 21, 2000;

3. the accuracy of any representation or statement made "to the knowledge of" or similarly qualified without such qualification, and as to all matters in which a person or entity is making a representation, that such person or entity is not a party to, does not have, and is not aware of, any plan, intention, understanding or agreement inconsistent with such representation, and there is no such plan, intention, understanding, or agreement inconsistent with such representation;

4. the reporting of the Merger as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the "CODE"), by Harmonic and C-Cube in their federal income tax returns;

5. the authenticity of original documents (including signatures),

conformity to the originals of documents submitted to us as copies, and due execution and delivery of all documents where due execution and delivery are prerequisites to effectiveness thereof; and

6. the absence of any occurrence since the date of the Tax Representation Letters that could have caused any of the declarations and representations contained in those letters to be untrue, incorrect, or incomplete in any respect at any time since such date.

Based upon the foregoing, the discussion contained in the Joint Proxy Statement under the caption "Material Federal Income Tax Consequences of the Merger," subject to the limitations and qualifications described therein and herein, and as of March 24, 2000, is our opinion with respect to the federal income tax consequences generally applicable to the Merger.

This opinion represents our best judgment regarding the application of federal income tax laws under the Code, existing judicial decisions, administrative regulations and published rulings and procedures. Our opinion is not binding upon the Internal Revenue Service or the courts, and there is no assurance that the Internal Revenue Service will not successfully assert a contrary position. Furthermore, no assurance can be given that future legislative, judicial or administrative changes, on either a prospective or retroactive basis, would not adversely affect the accuracy of the conclusions stated herein. We undertake no responsibility to advise you of any new developments in the application or interpretation of the federal income tax laws. Furthermore, in the event any one of the statements, covenants, representations, warranties or assumptions upon which we have relied to issue this opinion is incorrect, our opinion might be adversely affected and may not be relied upon.

3
Harmonic Inc.
June 5, 2000
Page 3

This opinion addresses only the matters described above, and does not address any other federal, state, local or foreign tax consequences that may result from the Merger or any other transaction (including any transaction undertaken in connection with the Merger).

This opinion may not be relied upon for any other purpose or by any other person or entity, and may not be furnished to, quoted to or by or relied upon by any other person or entity, without our prior written consent.

Very truly yours,

/s/ GIBSON, DUNN & CRUTCHER LLP

Gibson, Dunn & Crutcher LLP

[WSGR LETTERHEAD]

June 5, 2000

C-Cube Microsystems Inc.
1778 McCarthy Boulevard
Milpitas, CA 95035

Re: Registration Statement on Form S-4

Ladies and Gentlemen:

We have acted as counsel to C-Cube Microsystems Inc., a Delaware corporation ("C-Cube"), in connection with the preparation and execution of the Amended and Restated Agreement and Plan of Merger and Reorganization (the "Merger Agreement"), dated as of December 9, 1999, by and between C-Cube and Harmonic Inc., a Delaware corporation ("Harmonic"). Pursuant to the Merger Agreement, C-Cube has merged with and into Harmonic, with Harmonic surviving the merger (the "Merger"). The Merger and certain proposed transactions incident thereto are described in the Registration Statement on Form S-4 (the "Registration Statement") of Harmonic, which includes the Joint Proxy Statement/Prospectus/Information Statement of C-Cube and Harmonic ("Joint Proxy Statement"), which was filed with the U.S. Securities and Exchange Commission under the Securities Act of 1933 and which became effective on March 24, 2000.

You have requested our opinion regarding certain federal income tax consequences of the Merger. In connection with rendering this opinion, we have assumed and relied upon (without any independent investigation):

1. The truth and accuracy of the statements, covenants, representations and warranties contained in the Merger Agreement, in the representations received by us from Harmonic and C-Cube dated as of May 3, 2000 (the "Tax Representation Letters") and in the Registration Statement;

2. Consummation of the Merger in accordance with the Merger Agreement, without any waiver, breach or amendment of any material provisions of the Merger Agreement, the effectiveness of the Merger under applicable state law, and the performance of all covenants contained in the Merger Agreement and the Tax Representation Letters without waiver or breach of any material provisions thereof, in each case except as otherwise provided in the Waiver Agreement entered into between Harmonic and C-Cube dated as of April 21, 2000;

3. The accuracy of any representation or statement made "to the knowledge of" or similarly qualified without such qualification, and as to all matters in which a person or entity is making a representation, that such person or entity is not a party to, does not have, or is not aware of, any plan, intention, understanding or agreement inconsistent with such representation, and there is no such plan, intention, understanding, or agreement inconsistent with such representation;

2

4. The reporting of the Merger as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the "Code"), by Harmonic in its federal income return;

5. The authenticity of original documents (including signatures), conformity to the originals of documents submitted to us as copies, and due execution and delivery of all documents where due execution and delivery are prerequisites to effectiveness thereof; and

6. The absence of any occurrence since the date of the Tax Representation Letters, which change could have caused any of the declarations and representations contained in those letters to be untrue, incorrect or incomplete in any respect at any time since that date.

Based upon the foregoing, the discussion contained in the Joint Proxy Statement under the caption "Material Federal Income Tax Consequences of the

Merger," subject to the limitations and qualifications described therein and herein, and as of March [24], 2000, is our opinion with respect to the material United States federal income tax consequences generally applicable to the Merger.

This opinion represents our best judgment regarding the application of federal income tax laws under the Code, existing judicial decisions, administrative regulations and published rulings and procedures. Our opinion is not binding upon the Internal Revenue Service or the courts, and there is no assurance that the Internal Revenue Service will not successfully assert a contrary position. Furthermore, no assurance can be given that future legislative, judicial or administrative changes, on either a prospective or retroactive basis, would not adversely affect the accuracy of the conclusions stated herein. We undertake no responsibility to advise you of any new developments in the application or interpretation of the federal income tax laws. Furthermore, in the event any one of the statements, covenants, representations, warranties or assumptions upon which we have relied to issue this opinion is incorrect, our opinion might be adversely affected and may not be relied upon.

This opinion addresses only the matters described above, and does not address any other federal, state, local or foreign tax consequences that may result from the Merger or any other transaction undertaken in connection with the Merger.

This opinion is rendered only to you and is solely for your benefit in connection with filing the Registration Statement with the Securities and Exchange Commission. This opinion may not be relied upon for any other purpose or by any other person or entity, and may not be furnished to, quoted to or by or relied upon by any other person or entity, without our prior written consent. We hereby consent to the use of this opinion as an exhibit to the Registration Statement and to the use of our name under the caption "Material Federal Income Tax Consequences" in the Joint Proxy 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 of 1933, as amended, nor do we thereby admit that we are experts with respect to any part of such Registration Statement within the meaning of the term "experts" as used in the Securities Act of 1933, as amended.

Very truly yours,

/s/ WILSON SONSINI GOODRICH & ROSATI

Wilson Sonsini Goodrich & Rosati,
Professional Corporation

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in this Registration Statement of Harmonic Inc. on Form S-4MEF of our report dated November 19, 1999 (December 9, 1999 as to Note 1), on the consolidated financial statements of the DiviCom business (an operating unit of C-Cube Microsystems Inc.) appearing in the Joint Proxy Statement/Prospectus/Information Statement, which is part of Registration Statement No. 333-33148 of Harmonic Inc. on Form S-4 dated March 23, 2000. We also consent to the reference to us under the headings "Consolidated Historical Financial -- C-Cube/DiviCom" and "Experts" in the Joint Proxy Statement/Prospectus/Information Statement in such Form S-4.

Deloitte & Touche LLP
San Jose, California
June 2, 2000

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-4 of Harmonic Inc. of our report dated January 18, 2000, relating to the financial statements appearing in Harmonic Inc.'s Annual Report on Form 10-KA for the year ended December 31, 1999.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
June 1, 2000