

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

HARMONIC LIGHTWAVES, 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, California 94089
(408) 542-2500
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE,
OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

ROBIN N. DICKSON
Chief Financial Officer
Harmonic Lightwaves, Inc.
549 Baltic Way
Sunnyvale, California 94089
(408) 542-2500
(Name and address, including zip code, and telephone number,
including area code, of agent for service)

Copies
Patrick J. Schultheis, Esq.
Wilson Sonsini Goodrich & Rosati
Professional Corporation
650 Page Mill Road
Palo Alto, California 94304-1050

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. []

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. [X]

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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

Title of each class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price per Security(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, \$0.01 par value	1,037,911 shares	\$11.4375	\$11,871,107	\$3,502

(1) The price of \$11.4375 per share, which was the average of the high and low prices of the Common Stock on the Nasdaq National Market on January 2, 1998, is set forth solely for the purpose of calculating the registration fee in accordance with Rule 457(c) of the Securities Act of 1933, as amended.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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THE INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY AN OFFER TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY, NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

SUBJECT TO COMPLETION, DATED JANUARY 8, 1998

1,037,911 SHARES

HARMONIC LIGHTWAVES, INC.

COMMON STOCK

This Prospectus relates to the public offering, which is not being underwritten, of up to 1,037,911 shares (the "Shares") of Common Stock, \$0.001 par value per share (the "Common Stock"), of Harmonic Lightwaves, Inc. ("Harmonic" or the "Company"). The Shares are outstanding shares that may be sold from time to time by or on behalf of certain stockholders of the Company (the "Selling Stockholders"). The Selling Stockholders acquired the Shares in private transactions in which the Company acquired all of the outstanding stock of N.M. New Media Communication Ltd. ("NMC").

The Shares may be offered by the Selling Stockholders from time to time in transactions on the Nasdaq National Market, in privately negotiated transactions, or by a combination of such methods of sale, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. The Selling Stockholders may effect such transactions by selling the Shares to or through broker-dealers and such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders or the purchasers of the Shares for whom such broker-dealers may act as agent or to whom they sell as principal or both (which compensation to a particular broker-dealer might be in excess of customary commissions). See "Selling Stockholders" and "Plan of Distribution."

The Company will not receive any of the proceeds from the sale of the Shares by the Selling Stockholders. The Company has agreed to bear certain expenses in connection with the registration and sale of the Shares being offered by the Selling Stockholders. In addition, the Company has agreed to indemnify the Selling Stockholders against certain liabilities, including liabilities arising under the Securities Act of 1933, as amended (the "Securities Act"), or the Securities Exchange Act of 1934, as amended (the "Exchange Act").

On January 2, 1998, the closing bid price of the Company's Common Stock on the Nasdaq National Market was \$11.50 per share. The Common Stock is traded under the Nasdaq symbol "HLIT."

The Selling Stockholders and any broker-dealers or agents that participate with the Selling Stockholders in the distribution of the Shares may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, and any commissions received by them and any profit on the resale of the Shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

SEE "RISK FACTORS" COMMENCING ON PAGE 4 FOR A DISCUSSION OF RISK FACTORS THAT SHOULD BE CONSIDERED BY PROSPECTIVE PURCHASERS OF THE SHARES OFFERED HEREBY.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is January __, 1998

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AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Exchange Act and, in accordance therewith, it files reports, proxy statements and other information with the Securities and Exchange Commission (the "Commission"). Such reports, proxy statements and other information may be inspected and copied at the public reference facilities maintained by the Commission at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Commission's regional offices located at Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511 and at Seven World Trade Center, 13th Floor, New York, New York 10048. Copies of such materials may be obtained by mail from the Public Reference Section of the Commission at Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. The Commission also makes electronic filings publicly available on the Internet within 24 hours of acceptance. The Commission's Internet address is <http://www.sec.gov>. The Commission web site also contains reports, proxy and information statements, and other information regarding registrants that file electronically with the Commission. The Company's Common Stock is quoted on the Nasdaq National Market, and the reports, proxy statements and other information referred to above can also be inspected at the offices of Nasdaq Operations, 1735 K Street, N.W., Washington, D.C. 20006.

ADDITIONAL INFORMATION

The Company has filed with the Commission a registration statement on Form S-3, including this Prospectus and other information (herein, together with all amendments, exhibits and schedules, referred to as the "Registration Statement"), under the Securities Act, with respect to the Shares offered hereby. This Prospectus does not contain all the information set forth in the Registration Statement, certain parts of which are omitted in accordance with the rules and regulations of the Commission, and to which reference is hereby made. Statements made in this Prospectus as to the contents of any document referred to are not necessarily complete. With respect to each such document filed as an exhibit to the Registration Statement, reference is made to the exhibit for a more complete description of the matter involved, and each such statement shall be deemed qualified in its entirety by such reference. The

Registration Statement, including the exhibits and schedules thereto, may be inspected at the public reference facilities maintained by the Commission at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of such material may be obtained from the Public Reference Section of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates.

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INFORMATION INCORPORATED BY REFERENCE

The following documents filed by the Company with the Commission (File No. 0-25826) pursuant to the Exchange Act are incorporated by reference in this Prospectus:

1. The Company's Annual Report on Form 10-K for the year ended December 31, 1996 filed with the Commission on March 28, 1997 and Amendment No. 1 to the Company's Annual Report on Form 10-K/A filed with the Commission on April 30, 1997;
2. The Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended March 28, 1997, June 27, 1997 and September 26, 1997 filed with the Commission on May 12, 1997, August 11, 1997 and November 10, 1997, respectively;
3. The Company's Current Reports on Form 8-K dated and filed with the Commission on September 29, 1997 and January 6, 1998, respectively; and
4. The description of the Company's Common Stock contained in its Registration Statement on Form 8-A as filed with the Commission on April 7, 1995, including any amendments or reports filed for the purpose of updating such description.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus but prior to the termination of the offering to which this Prospectus relates shall be deemed to be incorporated by reference in this Prospectus and to be part hereof from the date of filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, in its unmodified form, to constitute a part of this Prospectus.

Upon written or oral request, the Company will provide without charge to each person to whom a copy of the Prospectus is delivered a copy of the documents incorporated by reference herein (other than exhibits to such documents unless such exhibits are specifically incorporated by reference herein). Requests for such documents should be submitted to Robin N. Dickson, Chief Financial Officer, at the principal executive offices of the Company in writing at Harmonic Lightwaves, Inc., 549 Baltic Way, Sunnyvale, California 94089 or by telephone at (408) 542-2500.

THE COMPANY

Harmonic Lightwaves Inc. is a worldwide supplier of highly integrated fiber optic transmission, digital headend and element management systems for the delivery of interactive services over broadband networks. The Company designs, manufactures and markets optical transmitters, nodes, receivers, digital video compression and modulation equipment and element management hardware and software. These products are used by major communications providers, such as

cable television operators, in bi-directional networks.

The Company was initially incorporated in California in June 1988 and reincorporated into Delaware in May 1995. The Company's principal executive offices are located at 549 Baltic Way, Sunnyvale, California 94089. Its telephone number at that address is (408) 542-2500. As used in this Prospectus, references to the "Company," "Harmonic" or the "Registrant" include Harmonic Lightwaves, Inc. and its subsidiaries.

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RISK FACTORS

This Prospectus, including the documents incorporated by reference herein, contains forward-looking statements that involve risks and uncertainties. The statements contained in this Prospectus or incorporated by reference herein that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act, including without limitation statements regarding the Company's expectations, beliefs, intentions or strategies regarding the future. All forward-looking statements included in this document or incorporated by reference herein are based on information available to the Company on the date hereof, and the Company assumes no obligation to update any such forward-looking statements. The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth in "Risk Factors" and elsewhere in this Prospectus.

The following risk factors should be considered in conjunction with the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1996, the Company's Quarterly Reports on Form 10-Q for the fiscal quarters ended March 28, 1997, June 27, 1997 and September 26, 1997, and the other information included and incorporated by reference in this Prospectus before purchasing the Common Stock offered hereby.

Potential Fluctuations in Future Operating Results. The Company's operating results have fluctuated and may continue to fluctuate in the future, on an annual and a quarterly basis, as a result of a number of factors, many of which are outside of the Company's control, including the level of capital spending in the cable television industry, changes in the regulatory environment, changes in market demand, the timing of customer orders, competitive market conditions, lengthy sales cycles, new product introductions by the Company or its competitors, market acceptance of new or existing products, the cost and availability of components, the mix of the Company's customer base and sales channels, the mix of products sold, development of custom products, the level of international sales and general economic conditions. In addition, in each of the first three quarters of 1997, the Company recognized a substantial portion of its revenues in the last month of the quarter. The Company establishes its expenditure levels for product development and other operating expenses based on projected sales levels, and expenses are relatively fixed in the short term. Accordingly, variations in timing of sales can cause significant fluctuations in operating results. In addition, because a significant portion of the Company's business is derived from orders placed by a limited number of large customers, the timing of such orders can also cause significant fluctuations in the Company's operating results. If sales are below expectations in any given quarter, the adverse impact of the shortfall on the Company's operating results may be magnified by the Company's inability to adjust spending to compensate for the shortfall.

Dependence on Key Customers and End Users. Historically, a substantial majority of the Company's sales have been to relatively few customers. Sales to the Company's ten largest customers in 1995, 1996 and the first nine months of 1997 accounted for approximately 80%, 72% and 59%, respectively, of its net sales. Due in part to the consolidation of ownership of domestic cable television systems, the Company expects that sales to relatively few customers will continue to account for a significant percentage of net sales for the foreseeable future. Harmonic has adopted a strategy to sell to major domestic

customers through its own direct sales force and expects that domestic OEM and distributor revenues will be a smaller percentage of net sales in 1997 and beyond than they have been in prior years. Substantially all of the Company's sales are made on a purchase order basis, and none of the Company's customers has entered into a long-term agreement requiring it to purchase the Company's products. The loss of, or any reduction in orders from, a significant customer would have a material adverse effect on the Company's business and operating results.

Dependence on Cable Television Industry Capital Spending. To date, substantially all of the Company's sales have been derived, directly or indirectly, from sales to cable television operators. Demand for the Company's products depends to a significant extent upon the magnitude and timing of capital spending by cable television operators for constructing, rebuilding or upgrading their systems. The capital spending patterns of cable television operators are dependent on a variety of factors, including access to financing, cable television operators' annual budget cycles, the status of federal, local and foreign government regulation of telecommunications and television broadcasting, overall demand for cable television services, competitive pressures (including the availability of alternative video delivery technologies such as satellite broadcasting), discretionary customer spending patterns and general economic conditions. The Company believes that the

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consolidation of ownership of domestic cable television systems, by acquisition and system exchanges, together with uncertainty over regulatory issues, particularly the debate over the provisions of the Telecommunications Act of 1996, caused delays in capital spending by major domestic MSOs during the second half of 1995 and first quarter of 1996. The Company's net sales in the third quarter of 1997 were adversely affected by a slow-down in spending by cable television operators. In addition, cable television capital spending can be subject to the effects of seasonality, with fewer construction and upgrade projects typically occurring in winter months and otherwise being affected by inclement weather.

Highly Competitive Industry. The market for cable television transmission equipment is extremely competitive and has been characterized by rapid technological change. Most of the Company's competitors are substantially larger and have greater financial, technical, marketing and other resources than the Company. Many of such large competitors are in a better position to withstand any significant reduction in capital spending by cable television operators. In addition, many of the Company's competitors have more long standing and established relationships with domestic and foreign cable television operators than does the Company. There can be no assurance that the Company will be able to compete successfully in the future or that competition will not have a material adverse effect on the Company's business and operating results.

Rapid Technological Change. The market for the Company's products is relatively new, making it difficult to accurately predict the market's future growth rate, size and technological direction. In view of the evolving nature of this market, there can be no assurance that cable television operators, telephone companies or other suppliers of broadband services will not decide to adopt alternative architectures or technologies that are incompatible with the Company's products, which would have a material adverse effect on the Company's business and operating results.

The broadband communications markets are characterized by continuing technological advancement. To compete successfully, the Company must design, develop, manufacture and sell new products that provide increasingly higher levels of performance and reliability. As new markets for broadband communications equipment continue to develop, the Company must successfully develop new products for these markets in order to remain competitive. For example, to compete successfully in the future, the Company believes that it must successfully develop and introduce products that will facilitate the processing and transmission of digital signals over optical networks. While the Company has announced and demonstrated initial products for digital applications, there can be no assurance that the Company will successfully

complete development of, or successfully introduce, products for digital applications, or that such products will achieve commercial acceptance. In addition, in order to successfully develop and market its planned products for digital applications, the Company may be required to enter into technology development or licensing agreements with third parties. Although many companies are often willing to enter into such technology development or licensing agreements, there can be no assurance that such agreements will be negotiated on terms acceptable to the Company, or at all. The failure to enter into technology development or licensing agreements, when necessary, could limit the Company's ability to develop and market new products and could have a material adverse effect on the Company's business and operating results.

The failure of the Company to successfully develop and introduce new products that address the changing needs of the broadband communications market could have a material adverse effect on the Company's business and operating results. In addition, there can be no assurance that the successful introduction by the Company of new products will not have an adverse effect on the sales of the Company's existing products. For instance, an emerging trend in the domestic market toward narrowcasting (targeted delivery of advanced services to small groups of subscribers) is causing changes in the network architectures of some cable operators. This may have the effect of changing the Company's product mix toward lower price transmitters, which could adversely affect the Company's gross margins.

Management of Growth; Acquisition of NMC. The growth in the Company's business has placed, and is expected to continue to place, a significant strain on the Company's limited personnel, management and other resources. Through its acquisition of NMC in January 1998, the Company increased the scope of its product line to include broadband, high-speed data delivery software and hardware and increased the scope of its international operations in Israel. The acquisition of NMC involves numerous risks and challenges, including: difficulties in the assimilation of operations, research and development efforts, products, personnel and cultures of the acquired companies; the potential adverse effects of the acquisition on relationships with customers, distributors, suppliers and other business partners of the two companies; dependence on communications industry capital spending; the dependence on the evolution of wireless and satellite broadband services; regulatory developments; rapid technological change; the highly competitive nature of the telecommunications industry; the Company's ability to successfully develop, manufacture and gain market acceptance of the products of NMC; the ability to manage geographically remote units; the integration of the acquired companies' management information systems with those of the Company; potential adverse short-term effects on the Company's operating results; the amortization of acquired intangible assets; the risk of entering emerging markets in which the Company has limited or no direct experience; and the potential loss of key employees of the acquired companies. The Company's future operating results will depend on its ability to successfully integrate NMC and implement operating, manufacturing and financial procedures and controls, to improve coordination among different operating functions, to strengthen management information and telecommunications systems and to continue to attract, train and motivate additional qualified personnel in all areas. There can be no assurance that the Company will be able to manage these activities and implement these additional systems and controls successfully, and any failure to do so could have a materially adverse effect upon the Company's operating results. In addition, the acquisition of NMC has resulted in significant additional working capital requirements. While the Company believes that it currently has sufficient funds to finance its operations for at least the next twelve months, to the extent that such funds are insufficient to fund the Company's activities, including any potential acquisitions, the Company may need to raise additional funds through public or private equity or debt financing from other sources. The sale of additional equity or convertible debt may result in additional dilution to the Company's stockholders and such securities may have rights, preferences or privileges senior to those of the Common Stock. There can be no assurance that additional equity or debt financing will be available or that if available it can be obtained on terms favorable to the Company or its stockholders.

Sole or Limited Sources of Supply. Certain components and subassemblies necessary for the manufacture of the Company's products are obtained from a sole supplier or a limited group of suppliers. The reliance on sole or limited suppliers and the Company's increasing reliance on subcontractors involve several risks, including a potential inability to obtain an adequate supply of required components or subassemblies and reduced control over pricing, quality and timely delivery of components or subassemblies. The Company does not maintain long-term agreements with any of its suppliers or subcontractors. An inability to obtain adequate deliveries or any other circumstance that would

require the Company to seek alternative sources of supply could affect the Company's ability to ship its products on a timely basis, which could damage relationships with current and prospective customers and could have a material adverse effect on the Company's

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business and operating results. The Company believes that investment in inventories will constitute a significant portion of its working capital in the future. As a result of such investment in inventories, the Company may be subject to an increasing risk of inventory obsolescence in the future, which would materially and adversely affect its business and operating results.

Risks of International Operations. Sales to customers outside of the United States in 1995, 1996 and the first nine months of 1997 represented 65%, 57% and 61% of net sales, respectively, and the Company expects that international sales will continue to represent a substantial portion of its net sales for the foreseeable future. In addition, the Company has an Israeli subsidiary that engages primarily in research and development. International operations are subject to a number of risks, including changes in foreign government regulations and telecommunications standards, export license requirements, tariffs and taxes, other trade barriers, fluctuations in currency exchange rates, difficulty in collecting accounts receivable, difficulty in staffing and managing foreign operations and political and economic instability. While international sales are typically denominated in U.S. dollars, fluctuations in currency exchange rates could cause the Company's products to become relatively more expensive to customers in a particular country, leading to a reduction in sales or profitability in that country. Payment cycles for international customers are typically longer than those for customers in the United States. There can be no assurance that foreign markets will continue to develop or that the Company will receive additional orders to supply its products for use in foreign broadband systems. In recent weeks, certain Asian currencies have devalued significantly in relation to the U.S. dollar. The Company is currently evaluating the effect of recent developments in Asia on the Company's business, and there can be no assurance that the Company's sales in Asia will not be materially adversely affected by such developments.

Volatility of Stock Price. The trading price of Harmonic Common Stock has historically been subject to wide fluctuations in response to quarterly variations in financial performance, shortfalls in revenue or earnings from levels forecast by securities analysts, changes in estimates by such analysts, market conditions in the computer software or hardware industries, product introductions by Harmonic or its competitors, announcements of extraordinary events such as acquisitions or litigation or general economic conditions. In addition, in recent years the stock market has experienced extreme price and volume fluctuations. These fluctuations have had a substantial effect on the market prices for many high technology and emerging growth companies, often unrelated to the operating performance of the specific companies. There can be no assurance that such fluctuations in Harmonic's Common Stock price will not continue in the future.

Effect of Certain Provisions; Anti-Takeover Effects of Certificate of Incorporation, Bylaws and Delaware Law; Limitation of Liability of Directors. The Harmonic Board of Directors has the authority to issue up to 5,000,000 shares of Preferred Stock and to determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares without any further vote or action by its stockholders. The rights of the holders of Harmonic Common Stock will be subject to, and may be adversely affected by, the rights of the holders of any Preferred Stock that may be issued in the future. The issuance of Preferred Stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire a majority of the outstanding voting stock of Harmonic. Further, certain provisions of Delaware law and Harmonic's Certificate of Incorporation and Bylaws could delay or make more difficult a merger, tender offer or proxy contest involving Harmonic. While such provisions are intended to enable the Harmonic Board of Directors to maximize stockholder value, they may have the effect of discouraging takeovers which could be in the best interest of certain stockholders. There is no assurance that such provisions will not have an

adverse effect on the market value of Harmonic Common Stock in the future. In addition, Harmonic's Certificate of Incorporation provides that its directors shall not be personally liable to Harmonic or its stockholders for monetary damages in the event of a breach of fiduciary duty to the extent permitted by Delaware law.

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SELLING STOCKHOLDERS

The following table lists the Selling Stockholders, the number of shares of the Company's Common Stock which each owned or had the right to acquire as of January 5, 1998, the number of shares of the Company's Common Stock expected to be sold by each, and the number and the percentage of the shares of the Company's Common Stock which each will own or have the right to acquire after the offering pursuant to the Registration Statement, assuming the sale of all the Shares expected to be sold. The Shares are being registered to permit public secondary trading of the Shares, and the Selling Stockholders may offer the Shares for resale from time to time. See "Plan of Distribution."

The Shares being offered by the Selling Stockholders were acquired from the Company in connection with the Company's acquisition of all of the outstanding stock of NMC. The Acquisition was accomplished pursuant to the terms of a Stock Purchase Agreement, dated September 16, 1997, as amended, whereby all issued and outstanding shares of stock of NMC were exchanged for an aggregate of 1,037,911 shares of the Company's Common Stock.

The Company has filed with the Commission a Registration Statement on Form S-3, of which this Prospectus forms a part, with respect to the resale of the Shares from time to time on the Nasdaq National Market or in privately-negotiated transactions. The Company has agreed to use reasonable efforts to keep such Registration Statement effective for up to two (2) years from the date of effectiveness of the Registration Statement on Form S-3, of which this Prospectus forms a part, subject to certain restrictions, or, if earlier, until the distribution contemplated in this Prospectus has been completed.

The Shares offered by this Prospectus may be offered from time to time by the Selling Stockholders named below:

NAME OF SELLING STOCKHOLDER	NUMBER OF SHARES OF COMMON STOCK BENEFICIALLY OWNED PRIOR TO THE OFFER	NUMBER OF SHARES TO BE OFFERED	NUMBER OF SHARES OF COMMON STOCK TO BE BENEFICIALLY OWNED AFTER THE OFFERING	PERCENTAGE OWNED AFTER THE OFFERING
N.N. New Media Entertainment Ltd.(2)	640,369	640,369	--	*
I.E.S. Electronics Industries Ltd.(3)	233,114	233,114	--	*
CRM Partners L.P.(4)	44,402	44,402	--	*
CRM Retirement Partners L.P.(5)	27,751	27,751	--	*
CRM Madison Partners L.P.(6)	11,101	11,101	--	*
CRM Euryclaim Partners L.P.(7)	2,775	2,775	--	*
CRM U.S. Value Fund Ltd.(8)	3,469	3,469	--	*
Cramer Rosenthal McGlynn Inc.(9)	3,469	3,469	--	*
Martina Neustadt(10)	18,039	18,039	--	*
Joelit Bachrach(11)	18,039	18,039	--	*
Cotex Enterprises Ltd.(12)	35,383	35,383	--	*

* Less than 1%

- (1) Assumes that all of the Selling Stockholders will sell all Shares during the effective period.
- (2) Such stockholder's address is 10 Beit Shamai St., Tel Aviv, 67018, Israel.
- (3) Such stockholder's address is 32 Ben-Guryon St., Ramat-Gan, 52573, Israel.
- (4) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.
- (5) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.
- (6) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.

- (7) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.
- (8) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.
- (9) Such stockholder's address is 520 Madison Avenue, New York, New York 10022.
- (10) Such stockholder's address is Friedrich Str. 3, 80801 Munich, Germany.
- (11) Such stockholder's address is Dresch St. 5, 80805 Munich, Germany.
- (12) Such stockholder's address is c/o: Mr. David Schottenfels, Adv., 29b Keren Ha'yesod St. Jerusalem, Israel.

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PLAN OF DISTRIBUTION

All or a portion of the Shares offered hereby by the Selling Stockholders may be delivered and/or sold from time to time in transactions on the Nasdaq National Market, in privately negotiated transactions, or by a combination of such methods of sale, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. After the effectiveness of the Registration Statement of which this Prospectus is a part, the Selling Stockholders may make short sales of the Company's Common Stock and may use the Shares to cover the resulting short positions. The Selling Stockholders may effect such transactions by selling the Shares to or through broker-dealers and such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders or the purchasers of the Shares for whom such broker-dealers may act as agent or to whom they sell as principal or both (which compensation to a particular broker-dealer might be in excess of customary commissions). There is no assurance that any of the Selling Stockholders will sell any or all of the Shares offered by them.

Any Selling Stockholder and any broker-dealers that participate in the distribution may under certain circumstances be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions received by such broker-dealers and any profits realized on the resale of Shares may be deemed to be underwriting discounts and commissions under the Securities Act. Each Selling Stockholder may agree to indemnify such broker-dealers against certain liabilities, including liabilities under the Securities Act. In addition, the Company has agreed to indemnify the Selling Stockholders against certain liabilities, including liabilities arising under the Securities Act and the Exchange Act. The Selling Stockholders have agreed to indemnify in certain circumstances the Company and certain related persons against certain liabilities, including liabilities arising under the Securities Act and the Exchange Act.

Any broker-dealer participating in such transactions as agent may receive commissions from a Selling Stockholder (and, if it acts as agent for the purchase of such Shares, from such purchaser). Broker-dealers may agree with such Selling Stockholder to sell a specified number of Shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for such Selling Stockholder, to purchase as principal any unsold Shares. Broker-dealers who acquire Shares as principal may thereafter resell such Shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) on the Nasdaq National Market, in privately negotiated transactions, or by a combination of such methods of sale, at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such Shares commissions computed as described above.

Each Selling Stockholder will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, Regulation M, which provisions may limit the time of bids for and purchases of shares of the Company's Common Stock by such Selling Stockholder.

Each Selling Stockholder will pay all commissions and other expenses associated with the sale of the Shares by such Selling Stockholder. The Shares offered hereby are being registered pursuant to contractual obligations of the

Company, and the Company has agreed to bear certain expenses in connection with the registration and sale of the Shares being offered by every such Selling Stockholder. The Company has not made any underwriting arrangements with respect to the sale of Shares offered hereby.

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USE OF PROCEEDS

The Company will not receive any proceeds from the sale of Common Stock by the Selling Stockholders.

LEGAL MATTERS

The legality of the securities offered hereby will be passed upon for the Company by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 1996, have been so incorporated in reliance on the report of Price Waterhouse LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

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No dealer, salesperson or any other person has been authorized to give any information or make any representations in connection with this offering other than those contained in this Prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by the Company or the Selling Stockholders. This Prospectus does not constitute an offer to sell or a solicitation of any offer to buy any of the securities offered hereby by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication that the information contained herein is correct as of any time subsequent to the date of the Prospectus.

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1,037,911 SHARES

HARMONIC LIGHTWAVES, INC.

COMMON STOCK

January __, 1998

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The fees and expenses incurred by the Company in connection with the offering are payable by the Company and, other than filing fees, are estimated as follows:

Securities and Exchange Commission Registration Fee.....	\$ 3,598
Legal Fees and Expenses.....	15,000
Accounting Fees.....	10,000
Miscellaneous.....	1,402
Total.....	\$30,000

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ITEM 15. INDEMNIFICATION OF OFFICERS AND DIRECTORS.

Section 145 of the Delaware General Corporation law ("DGCL") empowers a Delaware corporation to indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed legal action, suit or proceedings, whether civil, criminal, administrative or investigative (other than action by or in the right of such corporation), by reason of the fact that such person was an officer or director of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such officer or director acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interest, and, for criminal proceedings, had no reasonable cause to believe his conduct was illegal. 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 in the performance of his duty. 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 which such officer or director actually and reasonably incurred.

In accordance with the DGCL, Harmonic's Restated Certificate of Incorporation ("Certificate") contains a provision to limit the personal liability of the directors of the Registrant for violations of their fiduciary duty. This provision eliminates each director's liability to the Registrant or its stockholders for monetary damages except (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions, or (iv) for any transaction from which a director derived an improper personal benefit. The effect of this provision is to eliminate the personal liability of directors for monetary damages for actions involving a breach of their fiduciary duty of care, including any such actions involving gross negligence.

Article VII of Harmonic's Certificate and Article VI, Section 6.1 of Harmonic's Bylaws provide for indemnification of the officers and directors of the Registrant to the fullest extent permitted by applicable law.

The Registrant has entered into indemnification agreements with each director and executive officer which provide indemnification to such directors and executive officers under certain circumstances for acts or omissions which may not be covered by directors' and officers' liability insurance.

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ITEM 16. EXHIBITS.

The following exhibits are filed with this Registration Statement:

EXHIBIT NUMBER -----	DESCRIPTION -----
2.1	Stock Purchase Agreement dated September 16, 1997 among the Registrant, NMC and the persons listed on the Schedule of Sellers attached thereto (collectively, the "Sellers").(1)
2.2	First Amendment to Stock Purchase Agreement dated November 25, 1997 among the Registrant, NMC and the Sellers.(2)
4.1	Form of Registration Rights Agreement among the Registrant and the Sellers.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
23.1	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
23.2	Consent of Price Waterhouse LLP.
24.1	Power of Attorney (included in Part II of this Registration Statement under the caption "Signatures").

(1) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the Commission on September 29, 1997.

(2) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the Commission on January 6, 1998.

ITEM 17. UNDERTAKINGS.

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; (ii) to reflect in the prospectus any facts or events arising after the effective date of the 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 the 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 Commission pursuant to Rule 424(b) (Section 230.424(b) of this chapter) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and (iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement; provided, however, that (i) and (ii) do not apply if the Registration Statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by (i) and (ii) is contained in periodic 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 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.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described in Item 15 above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange 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 liabilities (other than the payment of 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

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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.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of

this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

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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-3 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 this 7th day of January, 1998.

HARMONIC LIGHTWAVES, INC.

By: /s/ ANTHONY J. LEY

Anthony J. Ley
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned officers and directors of Harmonic Lightwaves, Inc., a Delaware corporation, do hereby constitute and appoint jointly and severally, Anthony J. Ley and Robin N. Dickson, and each of them, the lawful attorneys and agents, with power and authority to do any and all acts and things and to execute any and all instruments which said attorneys and agents determine may be necessary or advisable or required to enable said corporation to comply with the Securities Act, and any rules or regulations or requirements of the Securities and Exchange Commission in connection with this Registration Statement. Without limiting the generality of the foregoing power and authority, the powers granted include the power and authority to sign the names of the undersigned officers and directors in the capacities indicated below to this Registration Statement, to any and all amendments, both pre-effective and post-effective, and supplements to this Registration Statement, and to any and all instruments or documents filed as part of or in conjunction with this Registration Statement or amendments or supplements thereof, and each of the undersigned hereby ratifies and confirms all that said attorneys and agents or any of them shall do or cause to be done by virtue hereof. This Power of Attorney may be signed in several counterparts.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated.

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, Chief Executive Officer and Chairman of the Board (Principal Executive Officer and Chairman of the Board)	January 7th, 1998
/s/ ROBIN N. DICKSON ----- Robin N. Dickson	Chief Financial Officer (Principal Financial an Accounting Officer)	January 7th, 1998
/s/ MOSHE NAZARATHY ----- Moshe Nazarathy	Director	January 7th, 1998
/s/ E. FLOYD KVAMME ----- E. Floyd Kvamme	Director	January 7th, 1998
/s/ DAVID A. LANE ----- David A. Lane	Director	January 7th, 1998
/s/ BARRY D. LEMIEUX ----- Barry D. Lemieux	Director	January 7th, 1998
/s/ ----- Michel L. Vaillaud	Director	January 7th, 1998

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EXHIBIT INDEX

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4.1	Form of Registration Rights Agreement among the Registrant and the Sellers.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
23.1	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
23.2	Consent of Price Waterhouse LLP.

24.1 Power of Attorney (included in Part II of this Registration Statement under the caption "Signatures").

- -----

- (1) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the Commission on September 29, 1997.
- (2) Incorporated by reference to the Registrant's Current Report on Form 8-K filed with the Commission on January 6, 1998.

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement ("Agreement") is made as of January 5, 1998 by and among Harmonic Lightwaves, Inc., a Delaware corporation (the "Company"), and the persons and entities listed on Schedule A hereto (the "NMC Shareholders").

RECITALS

1. The Company, the NMC Shareholders and N.M. New Media Communication Ltd., a corporation incorporated under the laws of Israel ("New Media") have entered into that certain Stock Purchase Agreement dated as of September 16, 1997 (the "Stock Purchase Agreement") concerning the acquisition of all outstanding Ordinary Shares of New Media by the Company (the "Acquisition") in consideration for shares of Common Stock of the Company ("Company Common Stock").

2. As a condition to the obligations of the NMC Shareholders to transfer their shares of New Media to the Company, the Company must grant the NMC Shareholders the registration rights set forth herein.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Definitions. As used in this Agreement:

a. "Exchange Act" means the United States Securities Exchange Act of 1934, as amended.

b. "Securities Act" means the United States Securities Act of 1933, as amended.

c. "Form S-3" means such form under the Securities Act as is in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC which similarly permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC (as defined below).

d. "Holder" means: (i) a NMC Shareholder for so long as such holder continues to hold the registration rights contained herein or (ii) a transferee of Registrable Securities by a Holder to whom registration rights under this Agreement are assigned pursuant to Section 9 of this Agreement.

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e. "Registrable Securities" means the shares of Company Common Stock issued pursuant to the Stock Purchase Agreement (including, without limitation, shares deposited in escrow), together with all other shares of Company Common Stock issued in respect thereof (by way of stock split, dividend or otherwise). Registrable Securities shall not include any shares of Company Common Stock transferred by a Holder for which registration rights are not also assigned pursuant to Section 9 hereof.

f. "SEC" means the United States Securities and Exchange Commission.

Capitalized terms not otherwise defined herein have the meanings given to them in the Stock Purchase Agreement.

2. Registration.

a. The Company shall use its Best Efforts to cause (i) all Registrable Securities held by each Holder to be registered under the Securities

Act, and (ii) a registration statement effecting such registration to be declared effective by the SEC not later than February 4, 1998 (it being understood that, in the event that the SEC determines not to review the registration statement, the Company will seek to have the registration statement declared effective within three (3) business days following its receipt of notice that the SEC will not review the registration statement), so as to permit the resale thereof on a continuous basis, subject to Section 3 hereof. In connection therewith, the Company shall prepare and file with the SEC promptly (but in any event within three (3) business days) following the Closing, and shall use its Best Efforts to cause to become effective as soon as practicable thereafter, a registration statement on Form S-3 (or such other form as is appropriate to effect the registration of the Registrable Securities); provided, however, that each Holder shall provide all such information to the Company concerning the Holder and take all such action as may be required (if any) in order to permit the Company to comply with all applicable requirements of the SEC and to obtain any desired acceleration of the effective date of such registration statement. Such provision of information is a condition precedent to the obligations of the Company pursuant to this Agreement. The Company shall not be required to effect more than one (1) registration pursuant to this Agreement; provided, however, that if the Company becomes ineligible to use Form S-3 or the registration statement originally filed is withdrawn or otherwise ceases to be effective prior to the Termination Date (as defined below), the Company shall use its Best Efforts to effect the registration of the Registrable Securities on a new registration statement.

b. The Company shall use its Best Efforts to take all such actions (including, without limitation, registering or qualifying the Registrable Securities) as is reasonably required under state securities or "blue sky" laws to enable the public sale of Registrable Securities by the Holders within all jurisdictions of the United States of America.

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3. Obligations of the Company. Subject to the limitations of Sections 4 and 11, the Company shall (i) keep the registration statement filed in accordance with Section 2 hereof continuously effective until the earlier of (a) two (2) years after the Closing or (b) such time as all Registrable Securities have been disposed of either hereunder or otherwise in a manner that results in such securities no longer being considered Registrable Securities (such date being referred to herein as the "Termination Date"); (ii) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to comply with the provisions of the Securities Act with respect to the sale or other disposition of all securities proposed to be registered in such registration statement; (iii) furnish to each Holder such number of copies of any prospectus (including any preliminary prospectus and any amended or supplemented prospectus) in conformity with the requirements of the Securities Act, and such other documents, as each Holder may reasonably request in order to effect the offering and sale of the Registrable Securities to be offered and sold, but only while the Company shall be required under the provisions hereof to cause the registration statement to remain current.

4. Selling Procedures.

a. The Company shall notify each Holder or a representative designated by such Holder (A) of any request by the SEC or any other federal or state governmental authority during the period of effectiveness of the registration statement for amendments or supplements to the registration statement or related prospectus or for additional information relating to the registration statement, (B) of the issuance by the SEC or any other federal or state governmental authority of any stop order suspending the effectiveness of the registration statement or the initiation of any proceedings for that purpose, (C) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose, or (D) of the happening of any event which makes any statement made in the registration statement or related prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or which requires the making of any changes in the registration statement or prospectus so that, in the case of the

registration statement, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, and that in the case of the prospectus, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. In such event, the Company may suspend use of the prospectus by written notice to each Holder, in which case each Holder shall not dispose of Registrable Securities covered by the registration statement or prospectus until copies of a supplemented or amended prospectus are distributed to the Holders or until the Holders are advised in writing by the Company that the use of the applicable prospectus may be resumed. Subject to Section 4(b) below, the Company shall use its Best Efforts to ensure that the use of the prospectus may be resumed as soon as practicable. The Company shall use its Best Efforts to obtain the withdrawal of any order suspending the effectiveness of the registration statement, or the lifting of

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any suspension of the qualification (or exemption from qualification) of any of the securities for sale in any jurisdiction, as soon as is practicable.

b. The Company shall, upon the occurrence of any event contemplated by clause (D) of Section 4(a) above, prepare a supplement or post-effective amendment to the registration statement or a supplement to the related prospectus or any document incorporated therein by reference or file any other required document so that, as thereafter delivered to the purchasers of the Registrable Securities being sold thereunder, such prospectus will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. Notwithstanding the foregoing, if the Company shall furnish to the Holders a certificate signed by the chief executive officer or chief financial officer of the Company stating that in the good faith judgment of the Board of Directors of the Company it would be significantly disadvantageous to the Company and its stockholders for any such registration statement to be amended or supplemented because the Company would be required to disclose in such registration statement, either directly or through incorporation by reference, material non-public information that it would not otherwise be obligated to disclose at such time, the disclosure of which at such time would have a material adverse effect on the business or prospects of the Company, the Company may defer such amending or supplementing of such registration statement until the earlier of (i) ninety (90) days from the date of the certificate or (ii) the filing of a report on Form 10-Q by the Company, and in such event, the Holders shall be required to discontinue disposition of any Registrable Securities during such period.

c. Each Holder hereby agrees that, during the period of duration specified by the Company and an underwriter of Company Common Stock or other securities of the Company, following the effective date of a registration statement of the Company filed under the Securities Act, it shall not, to the extent requested by the Company and such underwriter, directly or indirectly sell, offer to sell, contract to sell (including, without limitation, any short sale), grant any option to purchase or otherwise transfer or dispose of (other than to donees or transferees in a private placement who agree to be similarly bound) any securities of the Company held by it at any time during such period except Company Common Stock included in such registration; provided, however, that:

i. all officers and directors of the Company enter into similar agreements; and

ii. such market stand-off time period shall not exceed ninety (90) days.

Each Holder agrees to provide to the underwriters of any public offering such further agreement as such underwriter may reasonably require in connection with this market stand-off agreement. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other person subject to the foregoing restriction), until the end of such

period.

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d. The Company may not suspend the use of a prospectus, or otherwise prevent the Holders from selling Registrable Securities, pursuant to Section 4(a), 4(b) or 4(c) above, for a period of time exceeding ninety (90) days in any twelve month period. In addition, the Company may not suspend the use of a prospectus, or otherwise prevent the Holders from selling Registrable Securities, pursuant to Section 4(a), 4(b) or 4(c) above, within sixty (60) days of the effective date of the registration statement filed pursuant to Section 2 above.

5. Availability of Form S-3. The Company represents that it is currently eligible to utilize Form S-3 with respect to the registration of the Registrable Securities.

6. Expenses. The Company shall pay all of the out-of-pocket expenses incurred, other than underwriting or selling discounts and commissions, in connection with the registration of Registrable Securities pursuant to this Agreement, including, without limitation, all SEC and NASD registration and filing fees, printing expenses, transfer agent's and registrar's fees, and the reasonable fees and disbursements of the Company's outside counsel and accountants. The Company shall not be obligated to pay the fees and expenses of counsel to the Holders.

7. Indemnification. In the event of any offering registered pursuant to this Agreement:

a. The Company will indemnify each Holder, each or its officers and directors and each person controlling a Holder, against all claims, losses, damages and liabilities (or actions in respect thereof), including any of the foregoing incurred in settlement of any litigation, commenced or threatened, arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any registration statement, final prospectus, or any amendment or supplement thereto, incident to any offering registered pursuant to this Agreement, or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances in which they are made, not misleading, or any violation by the Company of any rule or regulation promulgated under the Securities Act or state securities laws applicable to the Company in connection with any such registration, and, subject to Section 7(c), will reimburse each such Holder, director, officer, and person controlling such Holder, for any legal and any other out-of-pocket expenses reasonably incurred in connection with investigating, preparing or defending any such claim, loss, damage, liability or action, provided that the Company will not be liable in any such case to the extent that any such claim, loss, damage, or liability arises out of or is based on (i) any untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with written information furnished to the Company for use in connection with the registration statement, final prospectus or any amendment or supplement thereto by such Holder or controlling person or (ii) any sale by a Holder in violation of Section 4 hereof.

b. Each Holder will indemnify the Company, each of its directors and officers and its legal counsel and independent accountants, each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such

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underwriter within the meaning of Section 15 of the Securities Act, and each other Holder and each person controlling such other Holder, each of such other Holders, officers and directors, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any

untrue statement (or alleged untrue statement) or a material fact contained in any such registration statement, final prospectus, or any amendment or supplement thereto, incident to any offering registered pursuant to this Agreement or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and, subject to Section 7(c), will reimburse the Company, such other Holders, such directors, officers, legal counsel, independent accountants, underwriters or control persons for any legal or any other expenses out-of-pocket reasonably incurred in connection with investigating, preparing or defending any such claim, loss, damage, liability or action, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, final prospectus, or any amendment or supplement thereto, in reliance upon and in conformity with information furnished to the Company by such Holder in writing for such purpose; provided, however, that the obligations of each Holder hereunder shall be several and not joint and shall be limited to an amount equal to the respective gross proceeds (before expenses and commissions) from the sale of Registrable Securities by such Holder as contemplated herein.

c. Each party entitled to indemnification under this Section 7 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party receives written notice of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom, provided that the Indemnified Party may participate in such defense at such party's expense, and provided further that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Agreement, except to the extent, but only to the extent, that the Indemnifying Party's ability to defend against such claim or litigation is impaired as a result of such failure to give notice. Notwithstanding the foregoing sentence, the Indemnified Party may retain its own counsel to conduct the defense of any such claim or litigation, and shall be entitled to be reimbursed by the Indemnifying Party for expenses incurred by the Indemnified Party in defense of such claim or litigation, in the event that the Indemnifying Party does not assume the defense of such claim or litigation within thirty days after the Indemnifying Party receives notice thereof from the Indemnified Party. Further, an Indemnifying Party shall be liable for amounts paid in settlement of any such claim or litigation only if the Indemnifying Party consents in writing to such settlement (which consent shall not be unreasonably withheld). No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party a release from all liability with respect to such claim or litigation.

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d. If the indemnification provided for in this Section 7 from the Indemnifying Party is unavailable to an Indemnified Party hereunder in respect of any claim, loss, damage or liability referred to herein, then the Indemnifying Party, to the extent such indemnification is unavailable, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such claims, losses, damages or liabilities in such proportion as is appropriate to reflect the relative benefit to or fault of the Indemnifying Party and indemnified parties in connection with the actions that resulted in such claims, losses, damages and liabilities. The relative benefit of such Indemnifying Party and indemnified parties shall be determined by reference to, among other things, in the case of the Company, the value of the entire issued ordinary share capital of Symphony received by the Company, and, in the case of each Holder, the gross proceeds received by each such Holder from the sale of Registrable Securities in the manner contemplated hereby. The amount paid or payable by a party as a result of the claims, losses, damages or liabilities referred to above shall be deemed to include any legal or other fees or expenses reasonably incurred by such party in connection with any investigation or proceeding. The parties hereto agree that it would not be just and equitable if contribution pursuant to this paragraph were determined by pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to above in this paragraph. No party

guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any party.

e. The obligations of the Company and each Holder under this Section 7 shall survive the completion of any offering of stock in a registration statement under this Agreement.

8. Reports Under Securities Exchange Act of 1934. The Company agrees to:

a. use all reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

b. furnish to each Holder forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of the Securities Act and the Exchange Act, or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time that it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and (iii) such other information as may be reasonably requested in availing each Holder of any rule or regulation of the SEC which permits the selling of any such securities pursuant to Form S-3; and

c. will use its Best Efforts to remain eligible to use Form S-3 with respect to the sale of the Registrable Securities.

9. Assignment of Registration Rights. The rights of a Holder pursuant to this Agreement may be assigned, in whole or in part, by such Holder to a transferee of Registrable Securities only if: (a) the Company is, within a reasonable time after such transfer, furnished with

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written notice of the name and address of such transferee and a copy of a duly executed written instrument in form reasonably satisfactory to the Company pursuant to which such transferee agrees to be bound hereby and provides the Company with such reasonable information as the Company may request to permit the transferee to sell such Registrable Securities pursuant to the registration statement filed in accordance with Section 2 hereof, and (b) immediately following such transfer, the disposition of such Registrable Securities by the transferee is restricted under the Securities Act.

10. Amendment of Registration Rights. The Holders of a majority of the Registrable Securities then outstanding may, with the consent of the Company, amend the registration rights granted hereunder.

11. Shareholder Lock Up.

a. Notwithstanding anything in this Agreement to the contrary, NMC Shareholder N.M. New Media Entertainment Ltd. ("NME") agrees that, except with respect to 256,148 Registrable Securities, it will not, directly or indirectly, sell, offer to sell, contract to sell (including, without limitation, any short sale), grant any option to purchase or otherwise transfer or dispose of: (a) any shares of Buyer Common Stock acquired pursuant to the Stock Purchase Agreement for a period ending one (1) year following the Closing Date and (b) more than an aggregate of 192,111 shares of Buyer Common Stock acquired pursuant to the Stock Purchase Agreement for a period ending two (2) years following the Closing date.

b. The Company agrees that, in the event that NME is required to indemnify the Company pursuant to Section 10 of the Stock Purchase Agreement, the Company will allow NME, notwithstanding Section 11(a) above, to sell such number of Registrable Securities as is necessary for NME to satisfy its indemnification obligation.

c. The Company agrees that, in the event that Mr. Efraim Atad is terminated by the Company without just cause (as such term is defined in the Employment Agreement between Mr. Atad and the Company), then the lock up set forth in Section 11(a) shall terminate and have no further force and effect.

12. Affiliate Registration. The Company agrees that, so long as a Holder is considered an "affiliate" of the Company, in the event that the Company

registers for re-sale securities of the Company held by other affiliates of the Company, the Company will afford such affiliate Holder the opportunity to include any Registrable Securities then held by such Holder in such registration statement upon substantially the same terms as the other affiliates.

13. Termination. All obligations of the parties set forth in this Agreement shall terminate upon the Termination Date. Notwithstanding the foregoing, the obligations of the parties hereto pursuant to Section 6 and Section 7 hereof shall survive the Termination Date, and the obligations of

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the Company pursuant to Section 12 hereof shall survive the Termination Date for a period of four (4) years.

14. Obligations of Holders. By exercising any rights hereunder, each Holder shall be deemed to assume all obligations of a Holder hereunder as though such Holder were a signatory hereto. The Company may require Holders to execute an instrument whereby such Holders expressly assume all obligations of Holders hereunder as a condition precedent to any obligations of the Company hereunder.

15. Notices. All notices, consents, waivers, and other communications under this Agreement must be in writing and will be deemed to have been duly given when (a) delivered by hand (with written confirmation of receipt), (b) sent by telecopier (with written confirmation of receipt), provided that a copy is mailed by registered mail, return receipt requested, or (c) when received by the addressee, if sent by a nationally recognized overnight delivery service (receipt requested), in each case to the appropriate addresses and telecopier numbers set forth below (or to such other addresses and telecopier numbers as a party may designate by notice to the other parties):

Sellers:	as set forth on Schedule A
with a copy to:	Shenhav, Elrom, Konforti & Shavit Shalom Tower, 4th Floor P.O. Box 29671 Tel-Aviv, 61290 Israel
Attention:	Amos Konforti, Adv.
Facsimile No.:	972-3-516-0068
Buyer:	Harmonic Lightwaves, Inc. 549 Baltic Way Sunnyvale, California 94089 United States of America
Attention:	Mr. Robin N. Dickson
Facsimile No.:	(408)542-2516

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with a copy to:	Wilson Sonsini Goodrich & Rosati, P.C. 650 Page Mill Road Palo Alto, California 94304 United States of America
Attention:	Patrick J. Schultheis, Esq.
Facsimile No.:	(650) 493-6811

16. Jurisdiction; Service of Process. Any action or proceeding seeking to enforce any provision of, or based on any right arising out of, this

Agreement may be brought against any of the parties in the courts of the State of California, County of Santa Clara, or, if it has or can acquire jurisdiction, in the United States District Court for the Northern District of California, and each of the parties consents to the jurisdiction of such courts (and of the appropriate appellate courts) in any such action or proceeding and waives any objection to venue laid therein. Process in any action or proceeding referred to in the preceding sentence may be served on any party anywhere in the world.

17. Entire Agreement and Modification. This Agreement supersedes all prior agreements between the parties with respect to its subject matter and constitutes (along with the documents referred to in this Agreement) a complete and exclusive statement of the terms of the agreement between the parties with respect to its subject matter. This Agreement may not be amended except by a written agreement executed by the party to be charged with the amendment.

18. Severability. If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

19. Section Headings, Construction. The headings of Sections in this Agreement are provided for convenience only and will not affect its construction or interpretation. All references to "Section" or "Sections" refer to the corresponding Section or Sections of this Agreement. All words used in this Agreement will be construed to be of such gender or number as the circumstances require. Unless otherwise expressly provided, the word "including" does not limit the preceding words or terms.

20. Governing Law. This Agreement will be governed by the laws of the State of California without regard to conflicts of laws principles.

21. Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Agreement and all of which, when taken together, will be deemed to constitute one and the same agreement.

22. Time of Essence. With regard to all dates and time periods set forth or referred to in this Agreement, time is of the essence.

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IN WITNESS WHEREOF, the parties have executed and delivered to this Agreement as of the date first written above.

HARMONIC LIGHTWAVES, INC.

By: _____
Robin N. Dickson
Chief Financial Officer

NMC SHAREHOLDERS

N.M. NEW MEDIA ENTERTAINMENT LTD.

By: _____
Name: _____
Title: _____

I.E.S. ELECTRONICS INDUSTRIES LTD.

By: _____
Name: _____
Title: _____

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CRM PARTNERS L.P.

By: _____
Gerald B. Cramer
Title: _____

CRM RETIREMENT PARTNERS L.P.

By: _____
Gerald B. Cramer
Title: _____

CRM MADISON PARTNERS L.P.

By: _____
Gerald B. Cramer
Title: _____

CRM EURYCLAIM PARTNERS L.P.

By: _____
Gerald B. Cramer
Title: _____

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CRM U.S. VALUE FUND LTD

By: _____
Gerald B. Cramer
Title: _____

CRAMER ROSENTHAL MCGLYNN INC.

By: _____
Gerald B. Cramer

Title: _____

Martina Neustadt

Joelit Bachrach

COTEX ENTERPRISES LTD.

By: _____

Name: _____

Title: _____

SCHEDULE A

Name and Address of Seller

N.M. New Media Entertainment Ltd.

I.E.S. Electronics Industries Ltd.

CRM Partners L.P.

CRM Retirement Partners L.P.

CRM Madison Partners L.P.

CRM Euryclaim Partners L.P.

CRM U.S. Value Fund Ltd.

Cramer Rosenthal McGlynn Inc.

Martina Neustadt

Joelit Bachrach

Cotex Enterprises Ltd.

January 7, 1998

Harmonic Lightwaves, Inc.
549 Baltic Way
Sunnyvale, California 94089

Re: REGISTRATION STATEMENT ON FORM S-3

Gentlemen:

We have examined the Registration Statement on Form S-3 to be filed by you with the Securities and Exchange Commission on or about January 8, 1998 (the "Registration Statement") in connection with the registration under the Securities Act of 1933, as amended, of up to 1,037,911 shares of your Common Stock. Such shares of Common Stock are referred to herein as the "Shares." 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.

It is our opinion that the Shares are 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,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Prospectus constituting part of this Registration Statement on Form S-3 of our report dated January 21, 1997, which appears on page 36 of the 1996 Annual Report to Stockholders of Harmonic Lightwaves, Inc., which is incorporated by reference in the Annual Report on Form 10-K of Harmonic Lightwaves, Inc. for the year ended December 31, 1996.

PRICE WATERHOUSE LLP
San Jose, California
January 7, 1998