
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark one)

- Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
For the quarterly period ended March 28, 2003.
- Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____

Commission File No. 0-25826

HARMONIC INC.

(Exact name of Registrant as specified in its charter)

Delaware

77-0201147

(State or other jurisdiction of
incorporation or organization)

(I.R.S. Employer
Identification Number)

549 Baltic Way
Sunnyvale, CA 94089
(408) 542-2500

(Address, including zip code, of principal executive offices,
telephone number, including area code, of agent for service)

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of March 28, 2003, there were 60,462,318 shares of the Registrant's Common Stock outstanding.

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PART I

FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

HARMONIC INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except par value amounts)	MARCH 28, 2003	DECEMBER 31, 2002
	(UNAUDITED)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 27,075	\$ 21,542
Short-term investments	16,452	27,616
Accounts receivable, net of allowances of \$4,788 and \$6,641, respectively	29,424	25,380
Inventories	22,768	25,904
Prepaid expenses and other current assets	4,625	5,494
	<u>100,344</u>	<u>105,936</u>
Property and equipment, net	29,752	32,456
Intangibles and other assets	31,853	35,362
	<u>\$ 161,949</u>	<u>\$ 173,754</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 1,671	\$ 1,862
Accounts payable	11,390	7,258
Income taxes payable	6,893	6,900
Accrued liabilities	54,653	58,670
	<u>74,607</u>	<u>74,690</u>
Long-term debt, less current portion	598	710
Accrued excess facilities costs, long-term	33,783	34,754
Other non-current liabilities	1,459	1,417
	<u>110,447</u>	<u>111,571</u>
Commitments and contingencies (Notes 6, 13, 14)		
Stockholders' equity:		
Preferred Stock, \$.001 par value, 5,000 shares authorized; no shares issued or outstanding	—	—
Common Stock, \$.001 par value, 150,000 shares authorized; 60,462 and 60,064 shares issued and outstanding	60	60
Capital in excess of par value	1,964,114	1,963,234
Accumulated deficit	(1,912,792)	(1,901,125)
Accumulated other comprehensive income	120	14
	<u>51,502</u>	<u>62,183</u>
	<u>\$ 161,949</u>	<u>\$ 173,754</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

HARMONIC INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE DATA)
(UNAUDITED)

	THREE MONTHS ENDED	
	March 28, 2003	March 29, 2002
Net sales	\$ 37,041	\$ 54,032
Cost of sales	26,294	38,269
Gross profit	10,747	15,763
Operating expenses:		
Research and development	8,503	11,119
Selling, general and administrative	12,063	15,321
Amortization of intangibles	1,933	2,828
Total operating expenses	22,499	29,268
Loss from operations	(11,752)	(13,505)
Interest and other income (expense), net	185	(7)
Loss before income taxes	(11,567)	(13,512)
Provision for income taxes	100	500
Net loss	\$ (11,667)	\$ (14,012)
Net loss per share		
Basic and Diluted	\$ (0.19)	\$ (0.24)
Weighted average shares		
Basic and Diluted	60,456	59,476

The accompanying notes are an integral part of these condensed consolidated financial statements.

HARMONIC INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN THOUSANDS)
(UNAUDITED)

THREE MONTHS ENDED

	March 28, 2003	March 29, 2002
Cash flows from operating activities:		
Net loss	\$ (11,667)	\$ (14,012)
Adjustments to reconcile net loss to cash used in operating activities:		
Amortization of intangibles	3,473	5,850
Depreciation	3,317	4,172
Stock option charge	17	372
Impairment and loss on disposal of fixed assets	—	624
Deferred income taxes	—	155
Changes in assets and liabilities:		
Accounts receivable	(3,919)	(11,201)
Inventories	3,242	4,817
Prepaid expenses and other assets	879	2,620
Accounts payable	4,132	333
Income taxes payable	(6)	3,267
Accrued excess facilities costs	(1,361)	(943)
Accrued and other liabilities	(3,608)	573
Net cash used in operating activities	(5,501)	(3,373)
Cash flows from investing activities:		
Purchases of investments	(3,735)	(2,232)
Proceeds from sale of investments	14,898	5,803
Acquisition of property and equipment	(613)	(1,114)
Net cash provided by investing activities	10,550	2,457
Cash flows from financing activities:		
Borrowings under bank line and term loan	131	346
Repayments under bank line and term loan	(434)	(283)
Proceeds from issuance of Common Stock, net	863	2,124
Net cash provided by financing activities	560	2,187
Effect of exchange rate changes on cash and cash equivalents	(76)	(2)
Net increase in cash and cash equivalents	5,533	1,269
Cash and cash equivalents at beginning of period	21,542	36,005
Cash and cash equivalents at end of period	\$ 27,075	\$ 37,274
Supplemental disclosure of cash flow information:		
Interest expense	\$ 57	\$ 87
Income tax payments (refunds), net	\$ 21	\$ (3,046)

The accompanying notes are an integral part of these condensed consolidated financial statements.

HARMONIC INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — BASIS OF PRESENTATION

The accompanying unaudited condensed consolidated financial statements include all adjustments (consisting only of normal recurring adjustments) which Harmonic Inc. (the "Company") considers necessary for a fair presentation of the results of operations for the unaudited interim periods covered and the consolidated financial condition of the Company at the date of the balance sheets. The quarterly financial information is unaudited. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's audited consolidated financial statements contained in the Company's Annual Report on Form 10-K, which was filed with the Securities and Exchange Commission on March 31, 2003. The interim results presented herein are not necessarily indicative of the results of operations that may be expected for the full fiscal year ending December 31, 2003, or any other future period. The Company's fiscal quarters end on the Friday nearest the calendar quarter end, except for the fourth quarter which ends on December 31. The third quarter of 2003 will end on September 26 in order to better equalize the number of days within each quarter of 2003.

NOTE 2 — RECENT ACCOUNTING PRONOUNCEMENTS

On January 1, 2003, the Company adopted Statement of Financial Accounting Standards No. 146 ("SFAS 146"), "Accounting for Costs Associated with Exit or Disposal Activities." The standard requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment. SFAS 146 applies to exit or disposal activities initiated after December 31, 2002. The adoption of SFAS 146 had no effect on the Company's financial position, results of operations, or cash flows.

Effective January 1, 2003, Harmonic adopted Financial Accounting Standards Board ("FASB") Interpretation No. 45 ("FIN 45"), "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others". FIN 45 requires the guarantor to recognize a liability for the fair value of the obligation undertaken in issuing or modifying guarantees. It also expands the disclosures to be made by a guarantor in its financial statements about its obligations under certain guarantees that it has issued and in regard to product warranties. The adoption of FIN 45 did not have a material impact on the Company's financial position, results of operations, or cash flows.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), "Consolidation of Variable Interest Entities", which addresses accounting for the assets, liabilities and activities of another entity. Prior to the issuance of FIN 46, a company generally included another entity in its consolidated financial statements only if it controlled the entity through voting interests. FIN 46 now requires a variable interest entity, as defined in FIN 46, to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity activities or is entitled to receive a majority of the entity's residual returns or both. FIN 46 also requires disclosures about variable interest entities that the company is not required to consolidate but in which it has a significant variable interest. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003 and to older entities in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply to all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. The adoption of FIN 46 had no effect on the Company's financial position, results of operations, or cash flows.

In November 2002, the Emerging Issues Task Force ("EITF") reached a consensus on Issue No. 00-21, "Revenue Arrangements with Multiple Deliverables." EITF Issue No. 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF Issue No. 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. The company believes that the adoption of this standard will have no material impact on its financial statements.

NOTE 3 — CASH, CASH EQUIVALENTS AND INVESTMENTS

Cash equivalents are comprised of highly liquid investment-grade investments with original maturities of three months or less at the date of purchase. Harmonic's short-term investments are stated at fair value, which approximate the cost of investments and are comprised of principally corporate debt securities. The Company classifies its investments as available for sale in accordance with SFAS No. 115, "Accounting for Certain

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Investments in Debt and Equity Securities,” and states its investments at estimated fair value, with unrealized gains and losses reported in other comprehensive income. The specific identification method is used to determine the cost of securities disposed of, with realized gains and losses reflected in other income and expense. Investments are anticipated to be used for current operations and are therefore classified as current assets, even though maturities may extend beyond one year. At March 28, 2003 and December 31, 2002, cash, cash equivalents and short-term investments are summarized as follows:

In Thousands	March 28, 2003	December 31, 2002
	(Unaudited)	
Cash and cash equivalents	\$ 27,075	\$ 21,542
Short-term investments:		
Less than one year	16,452	26,116
Due in 1-2 years	—	1,500
Total short-term investments	16,452	27,616
Total cash, cash equivalents and short-term investments	\$ 43,527	\$ 49,158

Harmonic currently believes that its existing liquidity sources, including the bank line of credit and trade receivables facilities, as limited by qualified receivables, will satisfy the Company's requirements for at least the next twelve months, including the final settlement and payment of C-Cube's pre-merger tax liabilities. However, Harmonic may need to raise additional funds if its expectations or estimates change or prove inaccurate, or to take advantage of unanticipated opportunities or to strengthen the Company's financial position. Harmonic's ability to raise funds may be adversely affected by a number of factors relating to Harmonic, as well as factors beyond its control, including increased market uncertainty surrounding the ongoing U.S. war on terrorism, as well as conditions in capital markets and the cable and satellite industries.

NOTE 4 — INVENTORIES

Inventories consist of:

In Thousands	March 28, 2003	December 31, 2002
	(Unaudited)	
Raw materials	\$ 7,921	\$ 10,944
Work-in-process	1,021	1,404
Finished goods	13,826	13,556
	\$ 22,768	\$ 25,904

NOTE 5 — GOODWILL AND IDENTIFIED INTANGIBLES

Harmonic accounts for goodwill and other intangibles in accordance with SFAS No. 142, "Goodwill and Other Intangible Assets", which requires, among other things, that goodwill and intangible assets with indefinite useful lives no longer be amortized and the testing of existing goodwill and other intangibles for impairment at least annually. Management believes the operating segments, BAN and CS, represent the Company's reporting units, and CS is the only reporting unit with goodwill and intangible assets. For the three months ended March 28, 2003 and March 29, 2002, the Company recorded a total of \$3.5 million and \$5.9 million, respectively, of amortization expense for identified intangibles of which \$1.5 million and \$3.0 million were included in cost of sales, respectively. Over the remaining useful lives of approximately two years, estimated future amortization expense of identified intangibles is \$10.4 million, \$13.9 million and \$4.6 million for the remaining nine months of 2003, and the fiscal years 2004 and 2005, respectively. Estimated future amortization expense to be included in cost of sales is \$4.6 million for the remainder of 2003, and \$6.2 million and \$2.1 million for the fiscal years 2004 and 2005, respectively.

The following is a summary of goodwill and intangible assets as of March 28, 2003 and December 31, 2002:

In Thousands	March 28, 2003			December 31, 2002		
	Gross Carrying Amount	(Unaudited) Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Identified intangibles:						
Developed core technology	\$ 29,059	\$ (17,565)	\$ 11,494	\$ 29,059	\$ (16,186)	\$ 12,873
Customer base	33,295	(18,948)	14,347	33,295	(17,226)	16,069
Trademark and tradename	4,076	(2,314)	1,762	4,076	(2,103)	1,973
Supply agreement	3,107	(1,764)	1,343	3,107	(1,603)	1,504
Subtotal of identified intangibles	69,537	(40,591)	28,946	69,537	(37,118)	32,419
Goodwill	1,780	—	1,780	1,780	—	1,780
Total goodwill and other intangibles	\$ 71,317	\$ (40,591)	\$ 30,726	\$ 71,317	\$ (37,118)	\$ 34,199

NOTE 6 — CREDIT FACILITIES AND LONG-TERM DEBT

In March 2003, Harmonic entered into a new bank line of credit facility with Silicon Valley Bank, which provides for borrowings up to \$13.5 million, including \$3.5 million for equipment under a secured term loan. This facility, which expires in March 2004, contains financial and other covenants including the requirement for Harmonic to maintain on deposit with the bank the greater of 50% of total cash, cash equivalents and short-term investments or \$10.0 million, or satisfy a liquidity covenant in the event cash, cash equivalents and short-term investments are less than \$10.0 million. This provision of the facility causes a restriction on the Company's ability to use cash and cash equivalents. Depending on the level of borrowings, letters of credit and other guarantees outstanding at any point in time, the amount of the restriction on usage will vary. As of March 28, 2003 and May 12, 2003, \$6.3 million and \$4.5 million of cash and cash equivalents were restricted as to usage. If Harmonic is unable to maintain on deposit with the bank the minimum balance of \$10.0 million, or satisfy the liquidity covenant requirement, Harmonic would be in noncompliance with the facility. At March 28, 2003, Harmonic was in compliance with these covenants. Future borrowings pursuant to the line bear interest at the bank's prime rate plus 0.25%-1.75% (prime rate plus 2%-3.75% for equipment borrowings) depending upon the Company's total cash position. Borrowings are payable monthly and are collateralized by all of Harmonic's assets. The Company has entered into an agreement with another financial institution holding amounts on deposit to allow, in the event of default, Silicon Valley Bank to control these deposits. As of March 28, 2003, \$2.3 million was outstanding under the equipment term loan portion of this facility. The term loan is payable monthly, including principal and interest at rates of 7.25% to 10.0% per annum on outstanding borrowings as of March 28, 2003 and matures at various dates through September 2005. Other than standby letters of credit and guarantees (Note 13) there were no other outstanding borrowings or commitments under the line of credit facility as of March 28, 2003.

In March 2003 Harmonic also renewed a facility with Silicon Valley Bank that provides for the sale of trade receivables on a non-recourse basis up to \$12.5 million and expires in March 2004. Trade receivables sold under the facility are discounted based on the bank's prime rate plus 1.5% for North American customers and at a negotiated rate for all other customers. This facility was not utilized in 2002 or in the first quarter of 2003.

The Company's ability to utilize both facilities with Silicon Valley Bank depends to a significant extent on having a sufficient amount of qualified receivables, which may fluctuate depending on the level and timing of sales and the aging, customer concentration, international mix and credit quality of receivables. To the extent that the Company does not have sufficient qualified receivables, Harmonic's ability to utilize these facilities could be significantly constrained. Based upon current levels of receivables, the Company believes that it would not be able to utilize a significant portion of these facilities at this time.

NOTE 7 — NET LOSS PER SHARE

The basic net loss per share is computed by dividing the net loss attributable to common stockholders for the period by the weighted average number of common shares outstanding during the period. The diluted net loss per share is the same as the basic net loss per share for the three month periods ended March 28, 2003 and March 29, 2002 because common shares issuable upon the exercise of stock options are only considered when their effect would be dilutive. During the three month periods ended March 28, 2003 and March 29, 2002, 6.9 million and 4.3 million of weighted average antidilutive options were excluded from the net loss per share computations, respectively, because their effect was antidilutive.

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NOTE 8 — COMPREHENSIVE LOSS

The Company's total comprehensive loss was as follows:

In Thousands (Unaudited)	THREE MONTHS ENDED	
	March 28, 2003	March 29, 2002
Net loss	\$ (11,667)	\$ (14,012)
Change in unrealized loss on investments, net	—	(14)
Foreign currency translation	106	(2)
Total comprehensive loss	\$ (11,561)	\$ (14,028)

NOTE 9 — RESTRUCTURING AND EXCESS FACILITIES

As a result of uncertain market conditions and lower sales during the second half of 2002, the Company implemented workforce reductions of approximately 120 full-time employees and changed its estimates related to accrued excess facilities with regard to the expected timing and amount of sublease income due to the substantial surplus of vacant commercial space in the San Francisco Bay Area. In connection with these actions, Harmonic recorded \$1.5 million and paid \$1.1 million for severance and other costs and recorded an additional excess facilities charge of \$22.5 million, net of sublease income, to selling, general and administrative expenses during the second half of 2002.

For the three month period ended March 28, 2003, Harmonic paid \$0.2 million of severance and other costs, and expects to pay the balance of approximately \$0.2 million during the remainder of 2003. As of March 28, 2003, accrued excess facilities cost totaled \$40.2 million of which \$6.4 million was included in current accrued liabilities and \$33.8 million in other non-current liabilities. The Company incurred cash outlays of \$1.4 million during the first quarter of 2003, principally for lease payments, property taxes, insurance and other maintenance fees related to vacated facilities. Harmonic expects to pay approximately \$4.8 million of excess facilities lease costs, net of estimated sublease income, for the remainder of 2003 and to pay the remaining \$35.4 million, net of estimated sublease income, over the remaining lease terms through September 2010. Harmonic plans to reassess this liability quarterly and adjust as necessary based on changes in the timing and amounts of expected sublease rental income. In the event the Company is unable to achieve expected levels of sublease rental income, Harmonic will need to revise its estimate of the liability, which could materially impact the Company's financial position, liquidity, cash flows and results of operations.

The following table summarizes restructuring activities:

In thousands (Unaudited)	Workforce Reduction	Excess Facilities	Total
Balance at December 31, 2002	\$ 414	\$ 41,594	\$42,008
Cash payments	(243)	(1,361)	(1,604)
Balance at March 28, 2003	\$ 171	\$ 40,233	\$40,404

NOTE 10 — SEGMENT REPORTING

Operating segments are defined as components of an enterprise that engage in business activities for which separate financial information is available and evaluated by the chief operating decision maker. Harmonic is organized as two operating segments, Broadband Access Networks, or BAN, for fiber optic systems, and Convergent Systems, or CS, for digital headend systems. Each segment has its own management team directing its product development, marketing strategies and its customer service requirements. A separate sales force generally supports both divisions with appropriate product and market specialization as required.

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The results of the reportable segments are derived directly from Harmonic's management reporting system. These results reported below are based on Harmonic's method of internal reporting and are not necessarily presented in conformity with generally accepted accounting principles. Management measures performance of each segment based on several metrics, including revenue, and income or loss from segment operations. These results are used, in part, to evaluate the performance of, and allocate resources to each of the segments. Income (loss) from segment operations excludes intangible amortization expense, corporate expenses, eliminations, and interest and other income. Corporate expenses and eliminations include human resources, legal, finance and other corporate departments and intercompany eliminations. Net income or loss, and assets and liabilities are not internally reported by business segment.

In Thousands (Unaudited)	THREE MONTHS ENDED	
	March 28, 2003	March 29, 2002
Net sales:		
Broadband Access Networks	\$ 13,061	\$ 21,812
Convergent Systems	23,980	32,220
Total net sales	\$ 37,041	\$ 54,032
Loss from segment operations:		
Broadband Access Networks	\$ (1,427)	\$ (941)
Convergent Systems	(3,491)	(2,962)
Loss from segment operations	(4,918)	(3,903)
Amortization of intangibles	(3,473)	(5,850)
Interest and other income (expense), net	185	(7)
Corporate expenses and eliminations	(3,361)	(3,752)
Loss before income taxes	\$ (11,567)	\$ (13,512)

NOTE 11 — EMPLOYEE STOCK PLANS

Harmonic accounts for employee stock option plans in accordance with Accounting Principles Board No. 25 ("APB 25"), "Accounting for Stock Issued to Employees", and has adopted the disclosure requirements under SFAS No. 148, "Accounting for Stock-Based Compensation — Transition and Disclosure", which was issued in December 2002. If charges for Harmonic's stock plans had been determined based on the fair value method at the grant dates, as prescribed in SFAS No. 123, "Accounting for Stock-Based Compensation", the Company's net loss and net loss per share would have been as follows:

In thousands, except per share data (Unaudited)	THREE MONTHS ENDED	
	March 28, 2003	March 29, 2002
Net loss as reported	\$ (11,667)	\$ (14,012)
Deduct: Stock compensation expense included in net loss, net of related tax effects	—	372
Add: Total stock compensation expense determined under fair value based method for all awards, net of related tax effects	(2,840)	(4,893)
Pro forma net loss	\$ (14,507)	\$ (18,533)
Basic and Diluted net loss per share:		
As reported	\$ (0.19)	\$ (0.24)
Pro forma	\$ (0.24)	\$ (0.31)

The fair value of each option grant is estimated on the date of grant using the Black-Scholes multiple option pricing model with the following weighted average assumptions:

	Employee Stock Options		Employee Stock Purchase Plan	
	Three Months Ended		Three Months Ended	
	March 28, 2003	March 29, 2002	March 28, 2003	March 29, 2002
Dividend yield	0.0%	0.0%	0.0%	0.0%
Volatility	126%	122%	136%	140%
Risk-free interest rate	2.3%	3.2%	1.8%	3.0%
Expected life (years)	3.6	3.4	1.2	1.4

In accordance with SFAS No. 123, stock options granted to non-employees are valued using the Black-Scholes option-pricing model and stock expense is recognized as earned. Stock expense is recognized on an accelerated basis using the multiple option method presented in Financial Accounting Standards Board Interpretation No. 28 ("FIN 28"), "Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans".

NOTE 12 — RELATED PARTY

Lewis Solomon, a director of Harmonic since January 2002, is CEO of Broadband Services Inc. (BSI). BSI purchases products from Harmonic in connection with its supply chain management and fulfillment services business. Revenues from BSI were \$31,000 and \$2.7 million for the three month periods ended March 28, 2003 and March 29, 2002, respectively. Accounts receivable from BSI were \$31,000 as of March 28, 2003, and \$0.4 million as of December 31, 2002. Mr. Solomon is also a director of Terayon Communications, with whom the Company has a reseller agreement for certain products. As of March 28, 2003 and December 31, 2002, Harmonic had liabilities to Terayon of \$0.2 million and \$0.5 million, respectively, for inventory purchases.

NOTE 13 — GUARANTEES AND INDEMNIFICATIONS

Warranties. The Company accrues for estimated warranty costs at the time of product shipment. Management periodically reviews the estimated fair value of its warranty liability and adjusts based on the terms of warranties provided to customers, historical and anticipated warranty claims experience, and estimates of the timing and cost of specified warranty claims. Activity for the Company's warranty accrual, which is included in accrued liabilities, is summarized below (in thousands):

Balance as of January 1, 2003	\$ 5,866
Accrual for warranties	837
Warranty costs incurred	(1,539)
Balance as of March 28, 2003	<u>\$ 5,164</u>

Standby Letters of Credit. As of March 28, 2003 the Company's financial guarantees consisted of standby letters of credit outstanding, which were related to customs bond requirements and corporate purchase cards. The maximum amount of potential future payments under these arrangements was \$0.9 million.

Guarantees. As of March 28, 2003, Harmonic had a guarantee outstanding totaling \$1.7 million, which was subsequently paid in full.

Indemnifications. Harmonic indemnifies the members of its Board of Directors pursuant to the requirements of its bylaws, and some of its suppliers and customers for specified intellectual property rights pursuant to certain parameters and restrictions. The scope of these indemnities varies, but in some instances, includes indemnification for damages and expenses (including reasonable attorneys' fees). No amounts have been accrued in respect of the indemnifications provisions at March 28, 2003.

NOTE 14 — LEGAL PROCEEDINGS

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Between June 28 and August 25, 2000, several actions alleging violations of the federal securities laws by Harmonic and certain of its officers and directors (some of whom are no longer with Harmonic) were filed in or removed to the United States District Court for the Northern District of California. The actions subsequently were consolidated.

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased Harmonic's publicly traded securities between January 19 and June 26, 2000. The complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19 and May 3, 2000. In addition to Harmonic and certain of its officers and directors, the complaint also named C-Cube Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding Harmonic's prospects and customers and its acquisition of C-Cube, certain defendants violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint also alleged that certain defendants violated section 14(a) of the Exchange Act and sections 11, 12(a)(2), and 15 of the Securities Act of 1933 by filing a false or misleading registration statement, prospectus, and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. On November 13, 2002, the Court issued an opinion granting the motions to dismiss the amended complaint without leave to amend. Judgment for defendants was entered on December 2, 2002. On December 12, 2002, plaintiffs filed a motion to amend the judgment and for leave to file an amended complaint pursuant to Rules 59(e) and 15(a) of the Federal Rules of Civil Procedure. Although a hearing on that motion was set for February 5, 2003, the Court issued an order stating that it would decide the motion without a hearing. The Court has not yet decided the motion.

A derivative action purporting to be on behalf of Harmonic was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. Harmonic also was named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class actions and claims that the defendants breached their fiduciary duties by, among other things, causing Harmonic to violate federal securities laws. The derivative action was removed to the United States District Court for the Northern District of California on September 20, 2000. All deadlines in this action have been stayed pending resolution of the motions to dismiss the securities actions.

Based on its review of the complaints filed in the securities class action, Harmonic believes that it has meritorious defenses and intends to defend itself vigorously. There can be no assurance, however, that Harmonic will prevail. An unfavorable outcome of this litigation could have a material adverse effect on Harmonic's business, operating results, financial position and liquidity.

In November 2001, the Company was sued in Tennessee state court by a company alleging breach of contract and breach of a Tennessee statute relating to retailers and suppliers. The suit has a claim for \$2.5 million and other unspecified damages, lost profits and attorneys' fees. The suit has since been removed to Federal Court and a trial date has been set for June 2003. Harmonic believes that it has meritorious defenses and will defend the suit vigorously. No liability has been provided at March 28, 2003, as Harmonic believes it is not probable that a liability has been incurred and the amount of loss, if any, cannot be estimated. However, we cannot assure you that an unfavorable outcome will not adversely impact our business, operating results, financial position and liquidity.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21(e) of the Securities Exchange Act of 1934, including statements regarding future operating results, industry capital spending and market conditions, future capital expenditures, future cash flows, future cost reduction actions, future interest income, future tax provisions and liabilities, future borrowing capability and future liquidity. These statements involve risks and uncertainties as well as assumptions that, if they were to never materialize or prove incorrect, could cause actual results to differ materially from those projected, expressed or implied in the forward-looking statements. These risks and uncertainties include those set forth under "Factors That May Affect Future Results of Operations" below and elsewhere in this Form 10-Q and that are otherwise described from time to time in Harmonic's filings with the Securities and Exchange Commission.

Overview

Harmonic designs, manufactures and sells a variety of broadband solutions that allow communications service providers around the world to deliver video, voice and data to their subscribers. Harmonic's fiber optic, digital video and data delivery systems enable network operators to provide a range of interactive and advanced digital services that include digital video, high-speed Internet access, telephony, HDTV, video and audio streaming, and video-on-demand.

Historically, almost all of our sales were derived directly or indirectly from sales of fiber optic transmission systems to cable television operators. With the introduction of digital headend products beginning in 1997, we broadened our product offering to enable delivery of digital video, voice and data over satellite and wireless networks and cable systems.

In order to further expand our digital systems capability, Harmonic acquired C-Cube Microsystems Inc. in May 2000, pursuant to the terms of a merger agreement dated October 27, 1999. Under the terms of the merger agreement, C-Cube spun off its semiconductor business as a separate publicly traded company, which was subsequently acquired by LSI Logic in June 2001. C-Cube merged into Harmonic and Harmonic therefore acquired C-Cube's DiviCom business, which provides encoding products and systems for digital television. The merger was structured as a tax-free exchange of stock and has been accounted for under the purchase method of accounting. The purchase price, including merger-related costs, was approximately \$1.8 billion. As of December 31, 2000, the Company determined that there was an impairment and recorded an impairment charge of \$1.4 billion, eliminating goodwill and reducing identified intangibles acquired to \$79.3 million. The merged company has been organized into two operating divisions, Broadband Access Networks, or BAN, for fiber optic systems and Convergent Systems, or CS, for digital headend systems.

Harmonic's net sales decreased 31% in the first quarter of 2003 compared to the first quarter of 2002 reflecting a more challenging capital spending environment worldwide, which adversely impacted sales of each division. BAN division and CS division sales decreased 40% and 26% respectively in the first quarter of 2003 compared to the first quarter of 2002.

Since the middle of 2000, Harmonic's sales have been well below levels achieved by Harmonic and DiviCom in 1999 and early 2000 as industry capital spending has been and generally remains weak. In addition, certain of our domestic and international customers have accumulated significant levels of debt and have announced in recent quarters, or are expected to announce, reorganizations and financial restructurings, including bankruptcy filings. In particular, Adelphia Communications declared bankruptcy in June 2002, and as a result, we have recorded only nominal revenue from Adelphia since the first quarter of 2002 and established a \$2.9 million provision in the second quarter of 2002 for probable losses on receivables and deferred costs of sales determined to no longer be recoverable. Adelphia accounted for approximately 5% of our net sales in the first quarter of 2002 and less than 2% of our net sales in 2002 and the first quarter of 2003. The stock prices of other domestic cable companies came under pressure following the Adelphia Communications bankruptcy due to concerns about debt levels and capital expenditure requirements for new and expanded services. These issues may further restrict our customers' access to capital and increase the cost of capital.

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We believe that these capital market concerns about the cable industry and the associated pressures on capital spending contributed to our lower sales during the first quarter of 2003 and we expect capital spending by domestic cable customers to remain at reduced levels at least through the second quarter of 2003. In addition, spending by Harmonic's international customers was also weak in the first quarter of 2003. We believe that this was due in part to pending business consolidations, financial restructurings and regulatory issues in Europe.

As a result of uncertain market conditions and lower sales during the second half of 2002, the Company implemented a series of cost control measures that included workforce reductions totaling approximately 120 employees during the second half of 2002. Harmonic recorded severance charges of \$1.5 million during the second half of 2002 related to the work force reductions. This followed a workforce reduction of approximately 30% during 2001 for which the Company recorded severance and other costs of \$2.5 million at the time. These actions coupled with normal turnover reduced headcount from over 1000 at the end of 2000 to 566 at the end of March 2003.

In light of the Company's reduced headcount, difficult business conditions, and a weak local commercial real estate market, we reassessed our accrual for the costs of excess facilities and recorded a charge of \$22.5 million during the third quarter of 2002. We changed our estimates with regard to the expected timing and amount of sublease income due to the substantial and growing surplus of vacant space in the San Francisco Bay Area. The excess facilities charge recorded during the third quarter of 2002 was for facilities that we no longer occupied, do not intend to occupy, or plan to sublease. The 2002 charges followed \$30.1 million recorded for excess facilities in 2001 when the initial accruals were established.

Due to lower than expected sales in several quarters during 2000 and 2001, the third quarter of 2002, and the first quarter of 2003, Harmonic failed to meet the expectations of securities analysts, and the price of our common stock declined, in some cases significantly. See "Factors That May Affect Results of Future Operations — Our Operating Results Are Likely To Fluctuate Significantly And May Fail To Meet Or Exceed The Expectations Of Securities Analysts Or Investors, Causing Our Stock Price To Decline."

Results of Operations

Net Sales

Harmonic's net sales decreased 31% from \$54.0 million in the first quarter of 2002 to \$37.0 million in the first quarter of 2003. The sales decrease in the first quarter of 2003 reflected significantly lower sales in each division. CS division sales decreased 26% in the first quarter of 2003 compared to the first quarter of 2002. The CS sales decrease was principally attributable to significantly lower sales of the Narrowcast Services Gateway, or NSG, for video-on-demand deployments to cable operators. BAN division sales decreased 40% in the first quarter of 2003 compared to the first quarter of 2002 principally due to cautious capital spending by cable operators. We believe this cautious spending was caused by current conditions in financial markets and capital market concerns about the cable industry in the aftermath of the Adelphia bankruptcy filing.

Sales within each division were also impacted in the first quarter of 2003 by lower international sales than in the comparable period of 2002. Harmonic's domestic sales represented 73% of net sales in the first quarter of 2003 compared to 69% of net sales in the first quarter of 2002.

Gross Profit

Gross profit decreased from \$15.8 million (29% of net sales) in the first quarter of 2002 to a gross profit of \$10.8 million (29% of net sales) in the first quarter of 2003. The decrease in gross profit was primarily due to lower sales volume and pricing pressures. Despite the significant decrease in sales in the first quarter of 2003, gross margins were the same in the first quarter of 2002 and 2003 primarily due to cost control measures implemented during the second half of 2002 including a reduction in headcount to streamline operations in the factory and technical service and support organizations, and, to a lesser extent, a higher proportion of CS division sales in the first quarter of 2003, which historically carry

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higher margins. In addition, gross profit for the first quarter of 2003 included a benefit of \$1.1 million related to products sold for which the cost basis had been written down in prior years.

Harmonic anticipates that gross margins may fluctuate in future periods due to a number of factors including sales volume, pricing, factory and service organization spending levels and the timing and amount of sales of previously written down products.

Research and Development

Research and development expenses decreased from \$11.1 million (21% of net sales) in the first quarter of 2002 to \$8.5 million (23% of net sales) in the first quarter of 2003. The decrease in absolute dollars was primarily due to a reduction in headcount associated with the workforce reductions during the second half of 2002 and ongoing cost control measures. The increase in research and development expenses as a percentage of sales in the first quarter of 2003 was attributable to decreased net sales.

Selling, General and Administrative

Selling, general and administrative expenses decreased from \$15.3 million (28% of net sales) in the first quarter of 2002 to \$12.1 million (33% of net sales) in the first quarter of 2003. The decrease in absolute dollars was principally due to a reduction in headcount associated with the workforce reductions implemented during the second half of 2002. The increase in selling, general and administrative expenses as a percentage of sales in the first quarter of 2003 was attributable to decreased net sales.

Amortization of Intangibles

Amortization expense decreased from \$2.8 million in the first quarter of 2002 to \$1.9 million in the first quarter of 2003 due to cessation of amortization associated with the acquisition of Cogent Technology.

Interest and Other Income (Expense), Net

Interest and other income (expense), net, increased from a nominal amount in the first quarter of 2002 to \$0.2 million in the first quarter of 2003 principally due to a foreign currency translation gain in the first quarter of 2003 compared to a foreign currency translation loss in the first quarter of 2002, partially offset by lower interest income in the first quarter of 2003.

Income Taxes

A provision for income tax expense of \$0.1 million was recorded for the first quarter of 2003 compared to a provision of \$0.5 million for the first quarter of 2002. The lower provision in the first quarter of 2003 was due to the expectation of lower foreign income taxes in 2003 than in 2002.

Segments

Harmonic's management uses income or loss from segment operations as its measure of segment profitability. Income or loss from segment operations excludes intangible amortization expense, corporate expenses, including excess facilities charges, and interest and other income. See Note 10 of Notes to Condensed Consolidated Financial Statements for further detail regarding segment operations prepared in accordance with GAAP.

Fluctuations in net sales by operating segments are discussed more extensively in the section above entitled *Net Sales*. With regard to losses from segment operations, CS had a loss from segment operations of \$3.5 million in the first quarter of 2003 compared to a loss of \$3.0 million in the first quarter of 2002. The increased CS loss in the first quarter of 2003 was due to a 26% decrease in sales and lower gross margins partially offset by lower operating expenses resulting from lower headcount. CS results for the first quarter of 2003 include a benefit of \$0.2 million related to products sold for which the cost basis had been written down in prior years.

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BAN had a loss from segment operations of \$1.4 million in the first quarter of 2003 compared to \$0.9 million in the first quarter of 2002. The increased BAN loss in the first quarter of 2003 was due to a 40% decrease in sales partially offset by lower operating expenses associated with lower headcount. BAN results for the first quarter of 2003 include a benefit of \$0.9 million related to products sold for which the cost basis had been written down in prior years.

Liquidity and Capital Resources

As of March 28, 2003, cash and cash equivalents and short term investments totaled \$43.5 million compared to \$49.2 million as of December 31, 2002. Cash used in operations was \$5.5 million in the first quarter of 2003, compared to \$3.4 million in the first quarter of 2002. The use of cash in operations in each period was primarily due to the net losses, partially offset by depreciation and amortization.

Under the terms of the merger agreement with C-Cube, Harmonic is generally liable for C-Cube's pre-merger tax liabilities. Approximately \$20.8 million of pre-merger tax liabilities remain outstanding and are included in accrued liabilities. Harmonic expects final settlement, and payment, of these obligations to a variety of taxing authorities and LSI Logic over the next twelve months. To the extent that these obligations are finally settled for less than the amounts provided, Harmonic is required, under the terms of the merger agreement, to refund the difference to LSI Logic. Conversely, if the settlements are more than the \$20.8 million pre-merger tax liability, LSI is obligated to reimburse Harmonic.

Additions to property, plant and equipment were \$1.1 million and \$0.6 million in the first quarters of 2002 and 2003, respectively. Harmonic currently expects capital expenditures to be less than \$5 million during 2003.

In March 2003, Harmonic entered into a new bank line of credit facility with Silicon Valley Bank, which provides for borrowings up to \$13.5 million, including \$3.5 million for equipment under a secured term loan. This new facility, which expires in March 2004, contains financial and other covenants including the requirement for Harmonic to maintain on deposit with the bank the greater of 50% of total cash, cash equivalents and short-term investments or \$10.0 million, or satisfy a liquidity covenant in the event cash, cash equivalents and short-term investments are less than \$10.0 million. This provision of the facility causes a restriction on the Company's ability to use cash and cash equivalents. Depending on the level of borrowings, letters of credit and other guarantees outstanding at any point in time, the amount of the restriction on usage will vary. As of March 28, 2003 and May 12, 2003, \$6.3 million and \$4.5 million of cash and cash equivalents were restricted as to usage. If Harmonic is unable to maintain on deposit with the bank the minimum balance of \$10.0 million, or satisfy the liquidity covenant requirement, Harmonic would be in noncompliance with the facility. In the event of noncompliance by Harmonic with the covenants under the facility, Silicon Valley Bank would be entitled to exercise its remedies under the facility, including in the event amounts are outstanding under the facility, offset rights against the amounts Harmonic has maintained on deposit with the bank. At March 28, 2003, Harmonic was in compliance with these covenants. Future borrowings pursuant to the line bear interest at the bank's prime rate plus 0.25%-1.75% (prime rate plus 2%-3.75% for equipment borrowings) depending upon the Company's total cash position. Borrowings are payable monthly and are collateralized by all of Harmonic's assets. The Company has entered into an agreement with another financial institution holding amounts on deposit to allow, in the event of default, Silicon Valley Bank to control these deposits. As of March 28, 2003, \$2.3 million was outstanding under the equipment term loan portion of this facility. The term loan was payable monthly, including principal and interest at rates of 7.25% to 10.0% per annum on outstanding borrowings as of March 28, 2003 and matures at various dates through September 2005. Other than standby letters of credit and guarantees (Note 13) there were no other outstanding borrowings or commitments under the line of credit facility as of March 28, 2003.

In March 2003, Harmonic also renewed a facility with Silicon Valley Bank that provides for the sale of trade receivables on a non-recourse basis up to \$12.5 million and expires in March 2004. Trade receivables sold under the facility are discounted based on the bank's prime rate plus 1.5% for North American customers and at a negotiated rate for all other customers. This facility was not utilized in 2002 or in the first quarter of 2003.

The Company's ability to utilize both facilities with Silicon Valley Bank depends to a significant extent on having a sufficient amount of qualified receivables, which may fluctuate depending on the level and timing of sales and the aging, customer concentration, international mix and credit quality of receivables. To the extent that the Company does not have sufficient qualified receivables, Harmonic's ability to utilize these facilities could be significantly constrained. Based upon current levels of receivables, the Company believes that it would not be able to utilize a significant portion of these facilities at this time.

While we expect to report a net loss at least through the second quarter of 2003, we currently believe that our existing liquidity sources, including our bank line of credit and trade receivables facilities, as limited by qualified receivables, will satisfy our cash requirements for at least the next twelve months, including the final settlement and

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payment of C-Cube's pre-merger tax liabilities. However, we may need to raise additional funds if our expectations or estimates change or prove inaccurate, or to take advantage of unanticipated opportunities or to strengthen our financial position. Because our stock is currently trading at historically low levels, any financing at these levels could be significantly dilutive to existing shareholders. On March 18, 2002, Harmonic filed a registration statement on Form S-3 with the Securities and Exchange Commission, or SEC. This shelf registration statement, which was declared effective by the SEC in April 2002, will allow Harmonic to issue various types of securities, including common stock, preferred stock, debt securities and warrants to purchase common stock from time to time, up to an aggregate of \$150 million, subject to market conditions and our capital needs.

In addition, from time to time, we review potential acquisitions that would complement our existing product offerings, enhance our technical capabilities or expand our marketing and sales presence. Any future transaction of this nature could require potentially significant amounts of capital to finance the acquisition and related expenses as well as to integrate operations following a transaction, and could require us to issue our stock and dilute existing stockholders. If adequate funds are not available, or are not available on acceptable terms, we may not be able to take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.

Our ability to raise funds may be adversely affected by a number of factors relating to Harmonic, as well as factors beyond our control, including increased market uncertainty surrounding the ongoing U.S. war on terrorism and conditions in capital markets and the cable and satellite industries. There can be no assurance that any financing will be available on terms acceptable to us, if at all. See "Factors That May Affect Future Results of Operations — We May Need Additional Capital In The Future And May Not Be Able To Secure Adequate Funds On Terms Acceptable To Us."

FACTORS THAT MAY AFFECT FUTURE RESULTS OF OPERATIONS

We Depend On Cable And Satellite Industry Capital Spending For A Substantial Portion Of Our Revenue And Any Decrease Or Delay In Capital Spending In These Industries Would Negatively Impact Our Resources, Operating Results And Financial Condition and Cash Flows.

Prior to the merger with C-Cube in May 2000, almost all of Harmonic's historic sales had been derived from sales to cable television operators and we expect these sales to constitute a significant portion of net sales for the foreseeable future. Almost all of the DiviCom business' historic sales had been derived from sales to satellite operators, telephone companies and cable operators. Demand for our products will depend on the magnitude and timing of capital spending by cable television operators, satellite operators, broadcasters and telephone companies for constructing and upgrading of their systems.

These capital spending patterns are dependent on a variety of factors, including:

- access to financing;
- annual budget cycles;
- the impact of industry consolidation;
- the status of federal, local and foreign government regulation of telecommunications and television broadcasting;
- overall demand for communication services and the acceptance of new video, voice and data services;
- evolving industry standards and network architectures;
- competitive pressures;
- discretionary customer spending patterns; and
- general economic conditions.

In the past, specific factors contributing to reduced capital spending have included:

- uncertainty related to development of digital video and cable modem industry standards;
- delays associated with the evaluation of new services and system architectures by many cable television operators;
- emphasis on generating revenue from existing customers by cable television operators instead of new construction or network upgrades;
- proposed business combinations by our customers and regulatory review thereof; and
- economic and financial conditions in domestic and international markets.

Developments in capital markets over the past several years have reduced access to funding for new and existing customers, causing delays in the timing and scale of deployments of our equipment, as well as the postponement or cancellation of certain projects by our customers. Our business has been negatively impacted by the prolonged economic recession. During this same period Harmonic and other vendors received notification from several customers that they were canceling new projects, or delaying new orders to allow them to reduce inventory levels which were in excess of their current deployment requirements.

Certain of our customers have accumulated significant levels of debt and have announced during the past year, or

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are expected to announce, reorganizations and financial restructurings, including bankruptcy filings. For example, two of our major domestic customers, Adelphia Communications and Winfirst, declared bankruptcy during the first half of 2002, while NTL, a major international customer, has just recently emerged from bankruptcy. Even if these restructurings are completed, we cannot assure you that these customers will be in a position to purchase new equipment at levels we have seen in the past. Our business has been negatively impacted by the prolonged economic recession and the bankruptcy of Adelphia Communications has further heightened concerns in the financial markets about the domestic cable industry. These concerns, coupled with the current uncertain and volatile capital markets, have further pressured the market values of domestic cable operators and may further restrict their access to capital. BAN division sales have decreased significantly from the third quarter of 2000 due in particular to reduced spending by AT&T Broadband, which was acquired by Comcast in November 2002, and RCN. While BAN sales increased 3% in 2002, sales declined in the first quarter of 2003 compared to 2002 levels and generally remain weak.

CS division sales increased significantly from the first quarter of 2001 through the second quarter of 2002 due principally to demand for our next-generation digital systems such as the Narrowcast Services Gateway, or NSG, for video-on-demand deployments, and the MV50 encoder. CS sales of the MV50 encoder benefited during this period from the expansion of local channel offerings and compliance with FCC "must carry" regulations by domestic direct broadcast satellite, or DBS, operators. However, CS sales have decreased significantly since the first half of 2002 due principally to lower sales to cable and satellite customers. We believe this decrease was the result, in part, of the prolonged regulatory review of the proposed acquisition of DIRECTV by EchoStar, a pause in NSG shipments as most major domestic cable operators focused on initial VOD service launches rather than new VOD deployments, and reduced cable industry spending in the aftermath of the Adelphia bankruptcy filing.

Due to more challenging market conditions since the first half of 2002, and uncertainty about the 2003 capital spending plans of certain of our domestic and international cable and satellite customers, it is difficult to estimate growth in the markets in which we participate. For example, capital spending remained slow worldwide and some of our major domestic cable customers moved even more cautiously than we expected during the first quarter of 2003. Accordingly, Harmonic expects sales to remain at reduced levels compared to the first half of 2002 at least through the second quarter of 2003.

Our Customer Base Is Concentrated And The Loss Of One Or More Of Our Key Customers Would Harm Our Business. The Loss Of Any Key Customer Would Have A Negative Effect On Our Business.

Historically, a majority of our sales have been to relatively few customers, and due in part to the consolidation of ownership of cable television and direct broadcast satellite systems, we expect this customer concentration to continue in the foreseeable future. Sales to our ten largest customers in 2001, 2002, and the first quarter of 2003 accounted for approximately 49%, 61% and 67% of net sales, respectively. Although we are attempting to broaden our customer base by penetrating new markets such as the telco and broadcast markets, we expect to see continuing industry consolidation and customer concentration due in part to the significant capital costs of constructing broadband networks. For example, Comcast acquired AT&T Broadband in November 2002, thereby creating the largest U.S. cable operator, reaching approximately 21 million subscribers. In the DBS segment, News Corp. Ltd. recently announced its plan to acquire a controlling interest in Hughes Electronics, the parent company of DIRECTV, subject to certain regulatory and shareholder approvals. This transaction follows regulatory opposition to the proposed acquisition of DIRECTV by EchoStar. Consummation of this transaction would result in additional concentration of our customer base. In addition, financial restructurings of companies such as Adelphia Communications and several European operators may lead to further industry consolidation. In the first quarter of 2003, sales to Comcast, DIRECTV and EchoStar accounted for 21%, 18% and 14% of net sales, respectively compared to less than 10% for each of these customers in the first quarter of 2002. In the first quarter of 2002, sales to Charter Communications and Cablevision accounted for 16% and 14% of net sales, respectively. The loss of Comcast, DIRECTV, EchoStar, or any other significant customer or any reduction in orders by Comcast, DIRECTV, EchoStar, or any significant customer, or our failure to qualify our products with a significant customer could adversely affect our business, operating results and liquidity. In this regard sales to Charter Communications are expected to continue to be significantly lower in 2003 than in 2002, both in absolute dollars and as a percentage of revenue, as they are now in the latter stages of their network upgrade program. In addition, our sales to Charter may be impacted by capital market concerns about the cable industry and Charter in the aftermath of the Adelphia Communications bankruptcy filing in June 2002. The loss of, or any reduction in orders from, a significant customer would harm our business.

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Our Operating Results Are Likely To Fluctuate Significantly And May Fail To Meet Or Exceed The Expectations Of Securities Analysts Or Investors, Causing Our Stock Price To Decline.

Our operating results have fluctuated in the past and are likely to continue to fluctuate in the future, on an annual and a quarterly basis, as a result of several factors, many of which are outside of our control. Some of the factors that may cause these fluctuations include:

- the level and timing of capital spending of our customers, both in the U.S. and in foreign markets;
- changes in market demand;
- the timing and amount of orders, especially from significant customers;
- the timing of revenue from systems contracts which may span several quarters;
- competitive market conditions;
- seasonality, with fewer construction and upgrade projects typically occurring in winter months and otherwise being affected by inclement weather;
- our unpredictable sales cycles;
- new product introductions by our competitors or by us;
- changes in domestic and international regulatory environments;
- market acceptance of new or existing products;
- the cost and availability of components, subassemblies and modules;
- the mix of our customer base and sales channels;
- the mix of our products sold;
- our development of custom products and software;
- the level of international sales; and
- economic and financial conditions specific to the cable and satellite industries, and general economic conditions.

For example, the timing of deployment of our equipment can be subject to a number of other risks, including the availability of skilled engineering and technical personnel, the availability of other equipment such as digital set top boxes, and the need for local franchise and licensing approvals. We believe that changes in our customers' deployment plans have in recent quarters delayed, and may in the future delay, the receipt of new orders or the release of existing backlog.

In addition, we often recognize a substantial portion of our revenues in the last month of the quarter. We establish our 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. As a result of all these factors, our operating results in one or more future periods may fail to meet or exceed the expectations of securities analysts or investors. In that event, the trading price of our common stock would likely decline. In this regard, due to lower than expected sales in several quarters during 2000 and 2001, and during the third quarter of 2002 and the first quarter of 2003, we failed to meet our internal

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expectations, as well as the expectations of securities analysts and investors, and the price of our common stock declined, in some cases significantly.

We May Need Additional Capital In The Future And May Not Be Able To Secure Adequate Funds On Terms Acceptable To Us.

While Harmonic's cash and investment balances declined \$10.9 million during the past two quarters we currently believe that our existing liquidity sources, including our bank line of credit and trade receivables sale facilities, will satisfy our capital requirements for at least the next twelve months. We may need to raise additional funds if our estimates change or prove inaccurate, or in order for us to take advantage of unanticipated opportunities or to strengthen our financial position. Because our stock is currently trading at near historically low levels, any financing at these levels could be significantly dilutive to existing shareholders. On March 18, 2002, Harmonic filed a registration statement on Form S-3 with the Securities and Exchange Commission, or SEC. This shelf registration statement, which was declared effective by the SEC in April 2002, will allow Harmonic to issue various types of securities, including common stock, preferred stock, debt securities and warrants to purchase common stock from time to time, up to an aggregate of \$150 million, subject to market conditions and our capital needs. Our ability to raise funds may be adversely affected by a number of factors relating to Harmonic, as well as factors beyond our control, including increased market uncertainty following the events of September 11, 2001 and the ongoing U.S. war on terrorism as well as conditions in capital markets. There can be no assurance that such financing will be available on terms acceptable to us, if at all.

In addition, from time to time, we review potential acquisitions that would complement our existing product offerings, enhance our technical capabilities or expand our marketing and sales presence. Any future transaction of this nature could require potentially significant amounts of capital to finance the acquisition and related expenses as well as to integrate operations following a transaction, and could require us to issue our stock and dilute existing stockholders. If adequate funds are not available, or are not available on acceptable terms, we may not be able to take advantage of market opportunities, to develop new products or to otherwise respond to competitive pressures.

The Terrorist Attacks Of 2001, The Ongoing Threat Of Terrorism, and the Threat of the SARS Virus Have Created Great Uncertainty And May Continue To Harm Our Business.

Current conditions in the U.S. and global economies are uncertain. The terrorist attacks in 2001 created many economic and political uncertainties that have severely impacted the global economy. We experienced a further decline in demand for our products after the attacks. Recently, uncertainty associated with the SARS virus has adversely affected economic conditions. The long-term effects of the attacks, the ongoing war on terrorism, and the SARS virus on our business and on the global economy remain unknown. Moreover, the potential for future terrorist attacks has created additional uncertainty and makes it difficult to estimate how quickly the U.S. and other economies will recover and our business will improve.

We Depend On Our International Sales And Are Subject To The Risks Associated With International Operations, Which May Negatively Affect Our Operating Results.

Sales to customers outside of the United States in 2001, 2002 and the first quarter of 2003 represented 40%, 29% and 27%, of net sales, respectively, and we expect that international sales will continue to represent a substantial portion of our net sales for the foreseeable future. Our international operations are subject to a number of risks, including:

- changes in foreign government regulations and telecommunications standards;
- import and export license requirements, tariffs, taxes and other trade barriers;
- fluctuations in currency exchange rates;
- difficulty in collecting accounts receivable;
- the burden of complying with a wide variety of foreign laws, treaties and technical standards;

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- difficulty in staffing and managing foreign operations; and
- political and economic instability.

Certain of our international customers have accumulated significant levels of debt and have recently announced, or are expected to announce, reorganizations and financial restructurings, including bankruptcy filings. Even if these restructurings are completed, we cannot assure you that these customers will be in a position to purchase new equipment at levels we have seen in the past.

While our international sales and operations have typically been denominated in U.S. dollars, fluctuations in currency exchange rates could cause our products to become relatively more expensive to customers in a particular country, leading to a reduction in sales or profitability in that country.

Following implementation of the Euro in January 2002, a higher portion of our European business is denominated in Euros, which may subject us to increased foreign currency risk. Gains and losses on the conversion to U.S. dollars of accounts receivable, accounts payable and other monetary assets and liabilities arising from international operations may contribute to fluctuations in operating results. Furthermore, payment cycles for international customers are typically longer than those for customers in the United States. Unpredictable sales cycles could cause us to fail to meet or exceed the expectations of security analysts and investors for any given period. In addition, foreign markets may not develop in the future.

If Sales Forecasted For A Particular Period Are Not Realized In That Period Due To The Unpredictable Sales Cycles Of Our Products, Our Operating Results For That Period Will Be Harmed.

The sales cycles of many of our products, particularly our newer products and products sold internationally, are typically unpredictable and usually involve:

- a significant technical evaluation;
- a commitment of capital and other resources by cable, satellite, and other network operators;
- time required to engineer the deployment of new technologies or new broadband services;
- testing and acceptance of new technologies that affect key operations; and
- test marketing of new services with subscribers.

For these and other reasons, our sales cycles generally last three to six months, but can last up to 12 months. If orders forecasted for a specific customer for a particular quarter do not occur in that quarter, our operating results for that quarter could be substantially lower than anticipated.

As a result of the merger with C-Cube, a significant portion of our revenue is derived from solution contracts that include a combination of product sales as well as design, installation and integration services. Revenue forecasts for solution contracts are based on the estimated timing of the design, installation and integration of projects. Because the solution contracts generally span several quarters and revenue recognition is based on progress under the contract, the timing of revenue is difficult to predict and could result in lower than expected revenue in any particular quarter.

We Face Risks Associated With Having Important Facilities And Resources Located In Israel.

Harmonic maintains a facility in Caesarea in the State of Israel with a total of approximately 60 employees, or 10% of our workforce. The employees at this facility consist principally of research and development personnel involved in development of certain products for the CS division. In addition, we have pilot production capabilities at this facility consisting of procurement of subassemblies and modules from Israeli subcontractors and final assembly and test operations. Accordingly, we are directly influenced by the political, economic and military conditions affecting

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Israel, and any major hostilities involving Israel or the interruption or curtailment of trade between Israel and its trading partners could significantly harm our business. The September 2001 terrorist attacks, the ongoing U.S. war on terrorism and the escalation of terrorist attacks and hostilities within Israel have heightened these risks. We cannot assure you that the protraction or escalation of current tensions in the Middle East will not adversely affect our business and results of operations.

In addition, most of our employees in Israel are currently obligated to perform annual reserve duty in the Israel Defense Forces and several have been called for active military duty recently. We cannot predict the effect of these obligations on Harmonic in the future.

Pending Business Combinations And Other Financial And Regulatory Issues Among Our Customers Could Adversely Affect Our Business.

The telecommunications industry has been particularly impacted by the prolonged economic recession, adverse conditions in capital markets and financial difficulties in both the service and equipment sectors, including bankruptcies. Although large telecommunications service providers such as WorldCom and troubled data and voice-oriented start-ups have not been traditional customers of Harmonic, the cable, satellite and broadcast sectors have experienced significant financial problems. Many of our domestic and international customers have accumulated significant levels of debt and have announced in recent quarters, or are expected to announce, reorganizations and financial restructurings, including bankruptcy filings. In particular, Adelphia Communications, a major domestic cable operator, declared bankruptcy in June 2002. The stock prices of other domestic cable companies came under pressure following the Adelphia bankruptcy due to concerns about debt levels and capital expenditure requirements for new and expanded services, thereby making the raising of capital more difficult and expensive. New competitors, such as RCN and WinFirst, also had difficulty in accessing capital markets. WinFirst subsequently filed for bankruptcy. In Europe, rapid consolidation of the cable industry through acquisition also led to significant levels of debt at the major MSOs, and companies such as NTL and UPC commenced bankruptcy proceedings. European digital broadcasters, such as ITV Digital, Kirsch and Quiero, have also filed for protection from creditors.

While the capital market concerns about the domestic cable industry have eased somewhat since the summer of 2002, market conditions remain difficult and capital spending plans are generally constrained. It is likely that further industry restructuring will take place via mergers or spin-offs, such as the recent Comcast/AT&T Broadband transaction and the proposed spin-off of Time-Warner Cable from AOL Time-Warner. For instance, News Corp. Ltd. recently announced its plan to acquire a controlling interest in Hughes Electronics, the parent company of DIRECTV, subject to certain regulatory and shareholder approvals. This transaction follows regulatory opposition to the proposed acquisition of DIRECTV by EchoStar. We cannot currently predict the impact of the announcement by News Corp. Ltd. to acquire control of DIRECTV, and the related industry uncertainty, on our future sales. We believe that uncertainty during 2002 regarding the proposed DIRECTV and Echostar merger adversely affected capital spending by both of these parties as well as other customers. If the announcement by News Corp. Ltd. to acquire control of DIRECTV has a similar effect on industry capital spending, our sales will be adversely affected. In addition, further business combinations may occur in the satellite industry, and these further combinations could adversely affect our business. Regulatory issues, financial concerns and business combinations among our customers are likely to significantly affect the industry, its capital spending plans, and our levels of business for the foreseeable future.

We Must Be Able To Manage Expenses And Inventory Risks Associated With Meeting The Demand Of Our Customers.

From time to time, we receive indications from our customers as to their future plans and requirements to ensure that we will be prepared to meet their demand for our products. If actual orders differ materially from these indications, our ability to manage inventory and expenses may be affected. In addition, if we fail to meet customers' supply expectations, we may lose business from such customers. If we enter into purchase commitments to acquire materials, or expend resources to manufacture products and such products are not purchased by our customers, our business and operating results could suffer. In this regard, our gross margins and operating results for the fourth quarter of 2000 and in 2001 were adversely affected by provisions for excess and obsolete inventories of approximately \$49 million.

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The Markets In Which We Operate Are Intensely Competitive And Many Of Our Competitors Are Larger And More Established.

The markets for cable television fiber optics systems and digital video broadcasting systems are extremely competitive and have been characterized by rapid technological change and declining average selling prices. Harmonic's competitors in the cable television fiber optics systems business include corporations such as C-Cor.net (which recently acquired Philips' fiber optics systems business), Motorola, and Scientific-Atlanta. In the digital and video broadcasting systems business, we compete broadly with vertically integrated system suppliers including Motorola, Scientific-Atlanta, Tandberg Television and Thomson Multimedia, and in certain product lines with Cisco and a number of smaller companies.

Many of our competitors are substantially larger and have greater financial, technical, marketing and other resources than Harmonic. Many of these large organizations are in a better position to withstand any significant reduction in capital spending by customers in these markets. They often have broader product lines and market focus and may not be as susceptible to downturns in a particular market. In addition, many of our competitors have been in operation longer than we have and therefore have more long standing and established relationships with domestic and foreign customers. We may not be able to compete successfully in the future which may harm our business.

If any of our competitors' products or technologies were to become the industry standard, our business could be seriously harmed. For example, U.S. cable operators have to date mostly purchased proprietary digital systems from Motorola and Scientific-Atlanta. While certain operators have made limited purchases of the "open" systems provided by Harmonic, we cannot assure you that our digital products will find broad market acceptance with U.S. cable operators. In addition, companies that have historically not had a large presence in the broadband communications equipment market have begun recently to expand their market share through mergers and acquisitions. The continued consolidation of our competitors could have a significant negative impact on us. Further, our competitors, particularly competitors of our digital and video broadcasting systems' business, may bundle their products or incorporate functionality into existing products in a manner that discourages users from purchasing our products or which may require us to lower our selling prices resulting in lower gross margins.

Broadband Communications Markets Are Characterized By Rapid Technological Change.

Broadband communications markets are relatively immature, making it difficult to accurately predict the markets' future growth rates, sizes or technological directions. In view of the evolving nature of these markets, it is possible that cable television operators, telephone companies or other suppliers of broadband wireless and satellite services will decide to adopt alternative architectures or technologies that are incompatible with our current or future products. If we are unable to design, develop, manufacture and sell products that incorporate or are compatible with these new architectures or technologies, our business will suffer.

We Need To Develop And Introduce New And Enhanced Products In A Timely Manner To Remain Competitive.

Broadband communications markets are characterized by continuing technological advancement, changes in customer requirements and evolving industry standards. To compete successfully, we must design, develop, manufacture and sell new or enhanced products that provide increasingly higher levels of performance and reliability. However, we may not be able to successfully develop or introduce these products, if our products:

- are not cost effective;
- are not brought to market in a timely manner;
- are not in accordance with evolving industry standards and architectures; or
- fail to achieve market acceptance, or are ahead of the market.

Also, to successfully develop and market certain of our planned products for digital applications, we may be required to enter into technology development or licensing agreements with third parties. We cannot assure you that

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we will be able to enter into any necessary technology development or licensing agreement on terms acceptable to us, or at all. The failure to enter into technology development or licensing agreements when necessary could limit our ability to develop and market new products and, accordingly, could materially and adversely affect our business and operating results.

We Need To Effectively Manage Our Operations And The Cyclical Nature Of Our Business.

The cyclical nature of our business has placed, and is expected to continue to place, a significant strain on our personnel, management and other resources. This strain has been exacerbated by the acquisition of DiviCom and the subsequent loss of numerous employees, including senior management. In addition, we reduced our work force by over 40% since the beginning of 2001 due to reduced industry spending and demand for our products. Our ability to manage our business effectively in the future, including any future growth, will require us to train, motivate and manage our employees successfully, to attract and integrate new employees into our overall operations, to retain key employees and to continue to improve our operational, financial and management systems.

Competition For Qualified Personnel Can Be Intense, And We May Not Be Successful In Attracting And Retaining Personnel.

Our future success will depend, to a significant extent, on the ability of our management to operate effectively, both individually and as a group. We are dependent on our ability to retain and motivate high caliber personnel, in addition to attracting new personnel. In spite of the current worldwide economic slowdown, competition for qualified technical and other personnel can be intense, and we may not be successful in attracting and retaining such personnel. Competitors and others have in the past and may in the future attempt to recruit our employees. While our employees are required to sign standard agreements concerning confidentiality and ownership of inventions, we generally do not have employment contracts or non-competition agreements with any of our personnel. The loss of the services of any of our key personnel, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel, particularly engineers and other technical personnel, could negatively affect our business.

We Are Liable For C-Cube's Pre-Merger Tax Liabilities, Including Tax Liabilities Resulting From The Spin-Off Of Its Semiconductor Business.

The spin-off of C-Cube's semiconductor business gave rise to a significant tax liability of approximately \$320 million based on a valuation of the semiconductor business of \$1.1 billion. The estimated liability was paid in 2000 by Harmonic. Under state law, Harmonic generally is liable for all of C-Cube's debts, including C-Cube's liability for taxes resulting from the spin-off and other pre-merger tax liabilities. C-Cube retained and transferred to Harmonic in the merger an amount of cash and other consideration sufficient to pay this liability as well as all other tax liabilities of C-Cube and its subsidiaries for periods prior to the merger. Approximately \$20.8 million of pre-merger tax liabilities remain outstanding and are included in accrued liabilities. Harmonic expects final settlement and payment of these obligations within the next twelve months, to a variety of taxing authorities and LSI Logic, which acquired the spun-off semiconductor business in June 2001 and assumed its obligations. To the extent that these obligations are finally settled for less than the amounts provided, Harmonic is required, under the terms of the merger agreement, to refund the difference to LSI Logic.

The merger agreement stipulates that Harmonic will be indemnified by the spun-off semiconductor business if the cash reserves are not sufficient to satisfy all of C-Cube's tax liabilities for periods prior to the merger. If for any reason, the spun-off semiconductor business does not have sufficient cash to pay such taxes, or if there are additional taxes due with respect to the non-semiconductor business and Harmonic cannot be indemnified by C-Cube, Harmonic generally will remain liable, and such liability could have a material adverse effect on our financial condition, liquidity and results of operations.

We May Be Subject To Risks Associated With Other Acquisitions.

We have made and may make investments in complementary companies, products or technologies. If we make acquisitions, we could have difficulty assimilating or retaining the acquired companies' key personnel and operations or integrating the acquired technology or products into ours. We also may face challenges in achieving the strategic objectives, cost savings or other benefits from a proposed acquisition and difficulties in expanding our

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management information systems to accommodate the acquired business. These difficulties could disrupt our ongoing business, distract our management and employees and significantly increase our expenses. Moreover, our operating results may suffer because of acquisition-related expenses, amortization of intangible assets and impairment of acquired goodwill or intangible assets. Furthermore, we may have to incur debt or issue equity securities to pay for any future acquisitions, or to provide for additional working capital requirements, the issuance of which could be dilutive to our existing shareholders. If we are unable to successfully address any of these risks, our business, financial condition and operating results could be harmed.

Cessation Of The Development And Production Of Video Encoding Chips By C-Cube's Spun-off Semiconductor Business May Adversely Impact Us.

The DiviCom business and C-Cube semiconductor business collaborated on the production and development of two video encoding microelectronic chips prior to the merger. In connection with the merger, Harmonic and the spun-off semiconductor business entered into a contractual relationship under which Harmonic will have access to certain of the spun-off semiconductor business technologies and products which the DiviCom business previously depended for its product and service offerings. The spun-off semiconductor business is the sole supplier of these chips to Harmonic. Several of these products continue to be important to our business, and we have incorporated these chips into additional products that we have developed.

However, under the contractual relationships between Harmonic and the spun-off semiconductor business, which was acquired by LSI Logic in June 2001, the semiconductor business does not have a firm commitment to continue the development of video encoding microelectronic chips. As a result, the semiconductor business may choose not to continue future development of the chips for any reason. The semiconductor business may also encounter in the future technological difficulties in the production and development of the chips. If the spun-off semiconductor business is not able to or does not sustain its development and production efforts in this area our business, financial condition, liquidity and results of operations could be harmed. Also, this agreement expires in 2004. See "Supply, License and Development Agreement" at page 60 of the joint proxy statement filed with the SEC on March 23, 2000, for further details of Harmonic's business relationship with the spun-off semiconductor business after the merger.

We Purchase Several Key Components, Subassemblies And Modules Used In The Manufacture Or Integration Of Our Products From Sole Or Limited Sources, And We Are Increasingly Dependent On Contract Manufacturers.

Many components, subassemblies and modules necessary for the manufacture or integration of our products are obtained from a sole supplier or a limited group of suppliers. Our reliance on sole or limited suppliers, particularly foreign suppliers, and our increased reliance on subcontractors since the merger with C-Cube involves several risks, including a potential inability to obtain an adequate supply of required components, subassemblies or modules and reduced control over pricing, quality and timely delivery of components, subassemblies or modules. In particular, certain optical components have in the past been in short supply and are available only from a small number of suppliers, including sole source suppliers. While we expend considerable efforts to qualify additional optical component sources, consolidation of suppliers in the industry and the small number of viable alternatives have limited the results of these efforts. We do not generally maintain long-term agreements with any of our suppliers or subcontractors. An inability to obtain adequate deliveries or any other circumstance that would require us to seek alternative sources of supply could affect our ability to ship our products on a timely basis, which could damage relationships with current and prospective customers and harm our business. We attempt to limit this risk by maintaining safety stocks of these components, subassemblies and modules. As a result of this investment in inventories, we have in the past and in the future may be subject to risk of excess and obsolete inventories, which could harm our business, operating results, financial position and liquidity. In this regard, our gross margins and operating results from the fourth quarter of 2000 through the third quarter of 2001 were adversely affected by excess and obsolete inventory charges of approximately \$49 million.

Our Failure To Adequately Protect Our Proprietary Rights May Adversely Affect Us.

We currently hold 43 issued United States patents and 10 issued foreign patents, and have a number of patent applications pending. Although we attempt to protect our intellectual property rights through patents, trademarks, copyrights, licensing arrangements, maintaining certain technology as trade secrets and other measures, we cannot

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assure you that any patent, trademark, copyright or other intellectual property rights owned by us will not be invalidated, circumvented or challenged, that such intellectual property rights will provide competitive advantages to us or that any of our pending or future patent applications will be issued with the scope of the claims sought by us, if at all. We cannot assure you that others will not develop technologies that are similar or superior to our technology, duplicate our technology or design around the patents that we own. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries in which we do business or may do business in the future.

We believe that the future success of our business will depend on our ability to translate the technological expertise and innovation of our personnel into new and enhanced products. We generally enter into confidentiality or license agreements with our employees, consultants, vendors and customers as needed, and generally limit access to and distribution of our proprietary information. Nevertheless, we cannot assure you that the steps taken by us will prevent misappropriation of our technology. In addition, we have taken in the past, and may take in the future, legal action to enforce our patents and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of resources and could negatively affect our business, operating results, financial position and liquidity.

In order to successfully develop and market certain of our planned products for digital applications, we may be required to enter into technology development or licensing agreements with third parties. Although many companies are often willing to enter into technology development or licensing agreements, we cannot assure you that such agreements will be negotiated on terms acceptable to us, or at all. The failure to enter into technology development or licensing agreements, when necessary, could limit our ability to develop and market new products and could cause our business to suffer.

We or Our Customers May Face Intellectual Property Infringement Claims From Third Parties.

Harmonic's industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the telecommunications industry have extensive patent portfolios. From time to time, third parties, including these leading companies, have asserted and may assert exclusive patent, copyright, trademark and other intellectual property rights against us or our customers. Indeed, a number of third parties, including leading companies, have asserted patent rights to technologies that are important to us.

Our suppliers and customers may receive similar claims. We have agreed to indemnify some of our suppliers and customers for alleged patent infringement. The scope of this indemnity varies, but, in some instances, includes indemnification for damages and expenses (including reasonable attorney's fees). In this regard, since December 2000, we have been in communication with several of Harmonic's customers who have been contacted by one of these leading companies that believes certain of our products require a license under a number of their patents. We currently are reviewing the identified patents to examine whether we consider a license necessary. While it is our understanding that the third party is willing to grant our customers a non-exclusive license under the identified patents, there can be no assurance that the terms of any offered license would be acceptable to our customers or that failure to obtain a license or the costs associated with any license would not cause our operating results to be materially adversely affected.

We Are The Subject Of Securities Class Action Claims And Other Litigation Which, If Adversely Determined, Could Harm Our Business And Operating Results.

Between June 28 and August 25, 2000, several actions alleging violations of the federal securities laws by Harmonic and certain of its officers and directors (some of whom are no longer with Harmonic) were filed in or removed to the United States District Court for the Northern District of California. The actions subsequently were consolidated.

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased Harmonic's publicly traded securities between January 19 and June 26, 2000. The complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19 and May 3, 2000. In addition to Harmonic and certain of its officers and directors, the complaint also named C-Cube

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Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding Harmonic's prospects and customers and its acquisition of C-Cube, certain defendants violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint also alleged that certain defendants violated section 14(a) of the Exchange Act and sections 11, 12(a)(2), and 15 of the Securities Act of 1933 by filing a false or misleading registration statement, prospectus, and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. On November 13, 2002, the Court issued an opinion granting the motions to dismiss the amended complaint without leave to amend. Judgment for defendants was entered on December 2, 2002. On December 12, 2002, plaintiffs filed a motion to amend the judgment and for leave to file an amended complaint pursuant to Rules 59(e) and 15(a) of the Federal Rules of Civil Procedure. Although a hearing on that motion was set for February 5, 2003, the Court issued an order stating that it would decide the motion without a hearing. The parties are awaiting the Court's decision.

A derivative action purporting to be on behalf of Harmonic was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. Harmonic also was named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class actions and claims that the defendants breached their fiduciary duties by, among other things, causing Harmonic to violate federal securities laws. The derivative action was removed to the United States District Court for the Northern District of California on September 20, 2000. All deadlines in this action have been stayed pending resolution of the motions to dismiss the securities actions.

Based on its review of the complaints filed in the securities class action, Harmonic believes that it has meritorious defenses and intends to defend itself vigorously. There can be no assurance, however, that Harmonic will prevail. An unfavorable outcome of this litigation could have a material adverse effect on Harmonic's business, operating results, financial position and liquidity.

In November 2001, we were sued in Tennessee state court by a company alleging breach of contract and breach of a Tennessee statute relating to retailers and suppliers. The suit has a claim for \$2.5 million and other unspecified damages, lost profits and attorneys' fees. The suit has since been removed to Federal Court and a trial date has been set for June 2003. Harmonic believes that it has meritorious defenses and will defend the suit vigorously. No liability has been provided at March 28, 2003, as Harmonic believes it is not probable that a liability has been incurred and the amount of loss, if any, cannot be estimated. However, we cannot assure you that an unfavorable outcome will not adversely impact our business, operating results, financial position and liquidity.

Our Stock Price May Be Volatile.

The market price of our common stock has fluctuated significantly in the past, particularly in recent years, and is likely to fluctuate in the future. In addition, the securities markets have experienced significant price and volume fluctuations and the market prices of the securities of technology companies have been especially volatile. Investors may be unable to resell their shares of our common stock at or above their purchase price. In the past, companies that have experienced volatility in the market price of their stock have been the object of securities class action litigation.

We Rely On A Continuous Power Supply To Conduct Our Operations, And Any Electrical And Natural Gas Crisis Could Disrupt Our Operations And Increase Our Expenses.

We rely on a continuous power supply for manufacturing and to conduct our business operations. Interruptions in electrical power supplies in California in the early part of 2001 could recur in the future. In addition, the cost of electricity and natural gas has risen significantly. Power outages could disrupt our manufacturing and business operations and those of many of our suppliers, and could cause us to fail to meet production schedules and commitments to customers and other third parties. Any disruption to our operations or those of our suppliers could result in damage to our current and prospective business relationships and could result in lost revenue and additional expenses, thereby harming our business and operating results.

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Some Anti-Takeover Provisions Contained in Our Certificate of Incorporation, Bylaws and Stockholder Rights Plan, as well as Provisions of Delaware Law, Could Impair a Takeover Attempt.

Harmonic has provisions in its certificate of incorporation and bylaws, each of which could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by the Harmonic Board of Directors. These include provisions:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to Harmonic common stock;
- limiting the liability of, and providing indemnification to, directors and officers;
- limiting the ability of Harmonic stockholders to call and bring business before special meetings;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of Harmonic stockholders and for nominations of candidates for election to the Harmonic Board of Directors;
- controlling the procedures for conduct and scheduling of Board and stockholder meetings; and
- providing the board of directors with the express power to postpone previously scheduled annual meetings and to cancel previously scheduled special meetings.

These provisions, alone or together, could delay hostile takeovers and changes in control or management of Harmonic.

In addition, Harmonic has adopted a stockholder rights plan. The rights are not intended to prevent a takeover of Harmonic, and we believe these rights will help Harmonic's negotiations with any potential acquirers. However, if the Board of Directors believes that a particular acquisition is undesirable, the rights may have the effect of rendering more difficult or discouraging that acquisition. The rights would cause substantial dilution to a person or group that attempts to acquire Harmonic on terms or in a manner not approved by the Harmonic Board of Directors, except pursuant to an offer conditioned upon redemption of the rights.

As a Delaware corporation, Harmonic also is subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without approval of the holders of substantially all of our outstanding common stock.

Any provision of our certificate of incorporation or bylaws, our stockholder rights plan or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for Harmonic stockholders to receive a premium for their shares of Harmonic common stock, and could also affect the price that some investors are willing to pay for Harmonic common stock.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact the operating results, financial position or liquidity of Harmonic due to adverse changes in market prices and rates. Harmonic is exposed to market risk because of changes in interest rates and foreign currency exchange rates as measured against the U.S. Dollar and currencies of Harmonic's subsidiaries.

Foreign Currency Exchange Risk

Harmonic has a number of international subsidiaries each of whose sales and results of operations are generally denominated in U.S. dollars. Following implementation of the Euro in January 2002, a higher proportion of our European business is denominated in Euros, which may subject us to increased foreign currency exchange risk. In addition, the Company has various international branch offices, which provide sales support and systems integration services. While Harmonic does not anticipate that near-term changes in exchange rates will have a material impact on future operating results, financial position and liquidity, Harmonic cannot assure you that a sudden and significant change in the value of local currencies would not harm Harmonic's operating results, financial position and liquidity.

Interest Rate Risk

Exposure to market risk for changes in interest rates relate primarily to Harmonic's investment portfolio of marketable debt securities of various issuers, types and maturities, and to Harmonic's borrowings under its bank line of credit facility. Harmonic does not use derivative instruments in its investment portfolio, and its investment portfolio only includes highly liquid instruments with an original maturity of less than two years. These investments are classified as available for sale and are carried at estimated fair value, with material unrealized gains and losses reported in other comprehensive income. There is risk that losses could be incurred if the Company were to sell any of its securities prior to stated maturity. A 10% change in interest rates would not have a material impact on financial conditions, results of operations and cash flow.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures.

Our chief executive officer and our chief financial officer, after evaluating our "disclosure controls and procedures" (as defined in Securities Exchange Act of 1934 (the "Exchange Act") Rules 13a-14(c) and 15-d-14(c)) as of a date (the "Evaluation Date") within 90 days before the filing date of this Quarterly Report on Form 10-Q, have concluded that as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

Changes in internal controls.

Subsequent to the Evaluation Date, there were no significant changes in our internal controls or in other factors that could significantly affect our disclosure controls and procedures, nor were there any significant deficiencies or material weaknesses in our internal controls. As a result, no corrective actions were required or undertaken.

PART II

OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Between June 28 and August 25, 2000, several actions alleging violations of the federal securities laws by Harmonic and certain of its officers and directors (some of whom are no longer with Harmonic) were filed in or removed to the United States District Court for the Northern District of California. The actions subsequently were consolidated.

A consolidated complaint, filed on December 7, 2000, was brought on behalf of a purported class of persons who purchased Harmonic's publicly traded securities between January 19 and June 26, 2000. The complaint also alleged claims on behalf of a purported subclass of persons who purchased C-Cube securities between January 19 and May 3, 2000. In addition to Harmonic and certain of its officers and directors, the complaint also named C-Cube Microsystems Inc. and several of its officers and directors as defendants. The complaint alleged that, by making false or misleading statements regarding Harmonic's prospects and customers and its acquisition of C-Cube, certain defendants violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The complaint also alleged that certain defendants violated section 14(a) of the Exchange Act and sections 11, 12(a)(2), and 15 of the Securities Act of 1933 by filing a false or misleading registration statement, prospectus, and joint proxy in connection with the C-Cube acquisition.

On July 3, 2001, the Court dismissed the consolidated complaint with leave to amend. An amended complaint alleging the same claims against the same defendants was filed on August 13, 2001. Defendants moved to dismiss the amended complaint on September 24, 2001. On November 13, 2002, the Court issued an opinion granting the motions to dismiss the amended complaint without leave to amend. Judgment for defendants was entered on December 2, 2002. On December 12, 2002, plaintiffs filed a motion to amend the judgment and for leave to file an amended complaint pursuant to Rules 59(e) and 15(a) of the Federal Rules of Civil Procedure. Although a hearing on that motion was set for February 5, 2003, the Court issued an order stating that it would decide the motion without a hearing. The parties are awaiting the Court's decision.

A derivative action purporting to be on behalf of Harmonic was filed against its then-current directors in the Superior Court for the County of Santa Clara on September 5, 2000. Harmonic also was named as a nominal defendant. The complaint is based on allegations similar to those found in the securities class actions and claims that the defendants breached their fiduciary duties by, among other things, causing Harmonic to violate federal securities laws. The derivative action was removed to the United States District Court for the Northern District of California on September 20, 2000. All deadlines in this action have been stayed pending resolution of the motions to dismiss the securities actions.

Based on its review of the complaints filed in the securities class action, Harmonic believes that it has meritorious defenses and intends to defend itself vigorously. There can be no assurance, however, that Harmonic will prevail. An unfavorable outcome of this litigation could have a material adverse effect on Harmonic's business, operating results, financial position and liquidity.

In November 2001, we were sued in Tennessee state court by a company alleging breach of contract and breach of a Tennessee statute relating to retailers and suppliers. The suit has a claim for \$2.5 million and other unspecified damages, lost profits and attorneys' fees. The suit has since been removed to Federal Court and a trial date has been set for June 2003. Harmonic believes that it has meritorious defenses and will defend the suit vigorously. No liability has been provided at March 28, 2003, as Harmonic believes it is not probable that a liability has been incurred and the amount of loss, if any, cannot be estimated. However, we cannot assure you that an unfavorable outcome will not adversely impact our business, operating results, financial position and liquidity.

ITEM 5. OTHER INFORMATION

Audit Committee Approval of Non-Audit Services

As required by Section 202 Sarbanes-Oxley Act of 2002, the Company's Audit Committee of the Board of Directors of the Company has pre-approved certain non-audit services to be provided by PricewaterhouseCoopers LLP, the Company's independent accountants. These services relate to consultation, advice and other services in connection with tax planning and compliance, SEC registration statements, potential acquisitions and other transactions, application of generally accepted accounting principles and the provision of statutory audit services in foreign jurisdictions.

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

a) Exhibits.

- 10.19 Modification to the Restated Non-Recourse Receivables Purchase Agreement dated September 25, 2001, as amended on December 14, 2001 and March 28, 2003 between Registrant and Silicon Valley Bank.
- 10.20 Business Loan and Security Agreement dated March 28, 2003 between Registrant and Silicon Valley Bank.
- 99.1 Certificate of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 99.2 Certificate of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

b) Reports on Form 8-K.

There were no Current Reports on Form 8-K filed by Harmonic with the Securities and Exchange Commission during the first quarter of the year ending December 31, 2003.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: May 12, 2003

HARMONIC INC.
(Registrant)

By: /s/ Robin N. Dickson

Robin N. Dickson
Chief Financial Officer
(Principal Financial and Accounting Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
SECTION 302 (a) OF
THE SARBANES-OXLEY ACT OF 2002

I, Anthony J. Ley, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Harmonic Inc.:
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and
 - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) All significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 12, 2003

By: /s/ Anthony J. Ley

Anthony J. Ley
Chairman, President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
SECTION 302 (a) OF
THE SARBANES-OXLEY ACT OF 2002

I, Robin N. Dickson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Harmonic Inc.:
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report (the "Evaluation Date"); and
 - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officer and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: May 12, 2003

By: /s/ Robin N. Dickson

Robin N. Dickson
Chief Financial Officer

INDEX TO EXHIBITS

Number	Exhibit
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SILICON VALLEY BANK

AMENDMENT TO PURCHASE AGREEMENT

SELLER: HARMONIC INC.
ADDRESS: 549 BALTIC WAY
SUNNYVALE, CA 94089

DATE: MARCH 28, 2003

THIS AMENDMENT TO PURCHASE AGREEMENT is entered into between Silicon Valley Bank ("Buyer") and the company named above ("Seller").

The Parties agree to amend the Restated Non-Recourse Receivables Purchase Agreement between them, dated September 25, 2001 (as amended, the "Purchase Agreement"), as follows, effective as of the date hereof. (Capitalized terms used but not defined in this Amendment, shall have the meanings set forth in the Purchase Agreement.)

1. EXTENSION. The portion of Section 2.1 of the Purchase Agreement which presently reads "(ii) buy any Purchased Receivable after April 1, 2003 (the 'Maturity Date')." is amended to read as follows:

"(ii) buy any Purchased Receivable after March 27, 2004 (the 'Maturity Date')."

2. SCHEDULE. The Schedule to the Purchase Agreement is replaced by the Schedule attached hereto.

3. COLLECTION BY BUYER. Section 3.2 of the Purchase Agreement is hereby amended in its entirety to read as follows:

"3.2 COLLECTION BY BUYER.

(a) Seller shall, at any time and from time to time, on Buyer's request, give written notice to each Account Debtor that the Purchased Receivables have been sold, transferred and assigned to Buyer, and directing that all payments on the Purchased Receivable be made to the Buyer or as the Buyer shall direct. Said written notice shall be on Buyer's standard form.

(b) At any time and from time to time, at Buyer's option (but without obligation), Buyer shall have the right to handle exclusively, and make all decisions with respect to, the collection of the Purchased Receivables, provided that, on request of Buyer, Seller shall take such

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SILICON VALLEY BANK

AMENDMENT TO PURCHASE AGREEMENT

actions as Buyer shall from time to time request, in order to collect or assist in the collection of the Purchased Receivables on behalf of Buyer. Until Buyer exercises its right to handle exclusively the collection of the Purchased Receivables, Seller shall collect the Purchased Receivables on behalf of Buyer and will use diligence and commercially reasonable means to collect Purchased Receivables on behalf of Buyer. Buyer shall have no obligation to commence or prosecute any litigation to collect any Purchased Receivable and all actions and decisions as to the method and manner of collection of Purchased Receivables shall be a matter of Buyer's own discretion and business judgment.

(c) If Seller is collecting the Purchased Receivables under clause (b) above, Seller will remit all payments and collections on Purchased Receivables to Buyer on the last business day of each week ('Settlement Date') starting the week after the Purchase Date, and, on each

Settlement Date Seller shall deliver to Buyer a written report, in form acceptable to Buyer, of account activity (including dates and amounts of payments) and changes with respect to each Purchased Receivable.

(d) If Buyer is collecting the Purchased Receivables under clause (b) above, and for any reason any payment on a Purchased Receivable, or any other proceeds of a Purchased Receivable, shall come into Seller's possession or control, Seller shall hold the same in trust for Buyer and shall deliver the same to Buyer, in the same form as received, with any necessary endorsements within one business day after receipt of the same.

(e) Seller shall deliver to Buyer any instrument or chattel paper evidencing a Purchased Receivable.

(f) Buyer shall have the right, at any time and from time to time, to verify with the Account Debtors all Purchased Receivables and all receivables offered to Buyer for purchase, in Buyer's own name or in the name of the Seller, or a nominee name, orally, in writing, by email, by other written confirmation or any other means selected by Buyer in its discretion.

(g) Seller, at Buyer's request, shall commence and prosecute legal proceedings for the collection of Purchased Receivables in its name (as Buyer's assignee for collection or enforcement) or, at Buyer's option, in Buyer's name. Seller will not make Buyer a party to any litigation or arbitration without Buyer's prior written consent."

4. REPRESENTATIONS TRUE. Seller represents and warrants to Buyer that all representations and warranties set forth in the Purchase Agreement, as amended hereby, are true and correct.

5. GENERAL PROVISIONS. This Amendment, the Purchase Agreement, any prior written amendments to the Purchase Agreement signed by Buyer and Seller, and the other written documents and agreements between Buyer and Seller set forth in full all of the

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SILICON VALLEY BANK

AMENDMENT TO PURCHASE AGREEMENT

representations and agreements of the parties with respect to the subject matter hereof and supersede all prior discussions, oral representations, oral agreements and understandings between the parties with respect to the subject hereof. Except as herein expressly amended, all of the terms and provisions of the Purchase Agreement, and all other documents and agreements between Buyer and Seller relating thereto shall continue in full force and effect and the same are hereby ratified and confirmed.

SELLER:

BUYER:

HARMONIC INC.

SILICON VALLEY BANK

BY /s/ Robin N. Dickson

BY /s/ Brad Leahy

PRESIDENT OR VICE PRESIDENT

TITLE Vice President

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SCHEDULE DATED _____
TO
NON-RECOURSE RECEIVABLES PURCHASE AGREEMENT
DATED AS OF SEPTEMBER 25, 2001

SELLER: Harmonic Inc.

BUYER: Silicon Valley Bank

PURCHASE DATE: _____

DUE DATE: _____ days from Purchase Date

TOTAL PURCHASED RECEIVABLES: \$ _____ (List of Receivables total)

DISCOUNT RATE: (a) _____% (Buyer's most recently announced Prime Rate plus 1.50% per annum (for domestic and Canadian receivables with a discount period of 90 days or less)); and
(b) _____% (Buyer's most recently announced Prime Rate plus 2.00% per annum (for foreign receivables with a discount period of 90 days or less)).

PRIME RATE: Prime Rate is Buyer's most recently announced "prime rate," even if it is not Buyer's lowest rate.

PURCHASE PRICE: \$ _____ (is _____% of the Total Purchased Receivables which is the straight discount of the Total Purchased Receivables discounted from the Due Date to the Purchase Date at the Discount Rate).

ADMINISTRATIVE FEE: .25%

Seller warrants and represents that (a) its warranties and representations in the Agreement are true and correct as of the date of this Schedule and (b) no Event of Default has occurred under the Agreement.

SELLER:

HARMONIC, INC.

By _____
Name _____
Title _____

BUYER:

SILICON VALLEY BANK

By _____
Name _____
Title _____

SILICON VALLEY BANK

LOAN AND SECURITY AGREEMENT

BORROWER: HARMONIC, INC.
 ADDRESS: 549 BALTIC WAY
 SUNNYVALE, CA 94089

DATE: MARCH 28, 2003

THIS LOAN AND SECURITY AGREEMENT is entered into on the above date between SILICON VALLEY BANK ("Silicon"), whose address is 3003 Tasman Drive, Santa Clara, California 95054 and the borrower(s) named above (jointly and severally, the "Borrower"), whose chief executive office is located at the above address ("Borrower's Address"). The Schedule to this Agreement (the "Schedule") shall for all purposes be deemed to be a part of this Agreement, and the same is an integral part of this Agreement. (Definitions of certain terms used in this Agreement are set forth in Section 8 below.)

As set forth in the Amendment to Loan Documents of even date between Silicon and the Borrower, this Loan Agreement amends and restates in its entirety the Second Amended and Restated Loan and Security Agreement dated March 5, 1999 between Silicon and Borrower (as previously amended, the "Prior Agreement").

1. LOANS.

1.1 LOANS. Silicon will make loans to Borrower (the "Loans") consisting of Equipment Loans and Revolving Loans as set forth in the Schedule, in amounts determined by Silicon in its good faith business judgment, up to the amounts (the "Credit Limit") shown on the Schedule, provided no Default or Event of Default has occurred and is continuing, and subject to deduction of Reserves for accrued interest and such other Reserves as Silicon deems proper from time to time in its good faith business judgment.

1.2 INTEREST. All Loans and all other monetary Obligations shall bear interest at the rate shown on the Schedule, except where expressly set forth to the contrary in this Agreement. Interest shall be payable monthly, on the last day of the month. Interest may, in Silicon's discretion, be charged to Borrower's loan account, and the same shall thereafter bear interest at the same rate as the other Loans. Silicon may, in its discretion, charge interest to Borrower's Deposit Accounts maintained with Silicon.

1.3 OVERADVANCES. If at any time or for any reason the total of all outstanding Loans and all other monetary Obligations exceeds the Credit Limit (an "Overadvance"), Borrower shall immediately pay the amount of the excess to Silicon, without notice or demand. Without limiting Borrower's obligation to repay to Silicon the amount of any Overadvance, Borrower agrees to pay Silicon interest on the outstanding amount of any Overadvance, on demand, at the Default Rate.

1.4 FEES. Borrower shall pay Silicon the fees shown on the Schedule, which are in addition to all interest and other sums payable to Silicon and are not refundable.

1.5 LOAN REQUESTS. To obtain a Loan, Borrower shall make a request to Silicon by facsimile or telephone. Loan requests received after 12:00 Noon will not be considered by Silicon until the next Business Day. Silicon may rely on any telephone request for a Loan given by a person whom Silicon believes is an authorized representative of Borrower, and Borrower will indemnify Silicon for any loss Silicon suffers as a result of that reliance.

1.6 LETTERS OF CREDIT. At the request of Borrower, Silicon may, in its good faith business judgment, issue or arrange for the issuance of letters of credit for the account of Borrower, in each case in form and substance satisfactory to Silicon in its sole discretion (collectively, "Letters of Credit"). The aggregate face amount of all Letters of Credit from time to time outstanding shall not exceed the amount shown on the Schedule (the "Letter of Credit Sublimit"), and shall be reserved against Loans which would otherwise be available hereunder, and in the event at any time there are insufficient Loans

available to Borrower for such reserve, Borrower shall deposit and maintain with Silicon cash collateral in an amount at all times equal to such deficiency, which shall be held as Collateral for all purposes of this Agreement. Borrower shall pay all bank charges (including charges of Silicon) for the issuance of Letters of Credit, together with such additional fee as Silicon's letter of credit department shall charge in connection with the issuance of the Letters of Credit. Any payment by Silicon under or in connection with a Letter of Credit shall constitute a Loan hereunder on the date such payment is made. Each Letter of Credit shall have an expiry date no later than thirty days prior to the Maturity Date; provided, that a Letter of Credit may have an expiry date after said date if 30 days prior to the Maturity Date, Borrower shall deposit and maintain with Silicon cash collateral in an amount equal to 105% of the face amount of such Letter of Credit. Borrower hereby agrees to indemnify and hold Silicon harmless from any loss, cost, expense, or liability, including payments made by Silicon, expenses, and reasonable attorneys' fees incurred by Silicon arising out of or in connection with any Letters of Credit, except any loss, cost, expense or liability arising from the gross negligence or wilful misconduct of Silicon. Borrower agrees to be bound by the regulations and interpretations of the issuer of any Letters of Credit guaranteed by Silicon and opened for Borrower's account or by Silicon's interpretations of any Letter of Credit issued by Silicon for Borrower's account, and Borrower understands and agrees that Silicon shall not be liable for any error, negligence, or mistake, whether of omission or commission, in following Borrower's instructions or those contained in the Letters of Credit or any modifications, amendments, or supplements thereto, except if the same arises from the gross negligence or wilful misconduct of Silicon. Borrower understands that Letters of Credit may require Silicon to indemnify the issuing bank for certain costs or liabilities arising out of claims by Borrower against such issuing bank. Borrower hereby agrees to indemnify and hold Silicon harmless with respect to any loss, cost, expense, or liability incurred by Silicon under any Letter of Credit as a result of Silicon's indemnification of any such issuing bank except any loss, cost, expense or liability arising from the gross negligence or wilful misconduct of Silicon. The provisions of this Loan Agreement, as it pertains to Letters of Credit, and any other Loan Documents relating to Letters of Credit are cumulative.

2. SECURITY INTEREST. To secure the payment and performance of all of the Obligations when due, Borrower hereby grants to Silicon a security interest in all of the following (collectively, the "Collateral"): all right, title and interest of Borrower in and to all of the following, whether now owned or hereafter arising or acquired and wherever located: all Accounts; all Inventory; all Equipment; all Deposit Accounts; all General Intangibles (including without limitation all Intellectual Property); all Investment Property; all Other Property; and any and all claims, rights and interests in any of the above, and all guaranties and security for any of the above, and all substitutions and replacements for, additions, accessions, attachments, accessories, and improvements to, and proceeds (including proceeds of any insurance policies, proceeds of proceeds and claims against third parties) of, any and all of the above, and all Borrower's books relating to any and all of the above. Anything herein to the contrary notwithstanding, with respect to any subsidiary of Borrower that is organized under the laws of any jurisdiction outside the United States (a "Foreign Subsidiary), the "Collateral" shall not include that portion (if any) of the capital stock (or other equity interests) of such Foreign Subsidiary owned by Borrower that is in excess of 65% of the aggregate issued and outstanding capital stock (or other equity interests) of such Foreign Subsidiary.

3. REPRESENTATIONS, WARRANTIES AND COVENANTS OF BORROWER.

In order to induce Silicon to enter into this Agreement and to make Loans, Borrower represents and warrants to Silicon as follows, and Borrower covenants that the following representations will continue to be true, and that Borrower will at all times comply with all of the following covenants, throughout the term of this Agreement and until all Obligations have been paid and performed in full:

3.1 CORPORATE EXISTENCE AND AUTHORITY. Borrower is and will continue to be, duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation. Borrower is and will continue to be qualified and licensed to do business in all jurisdictions in which any failure to do so would result in a Material Adverse Change. The execution, delivery and performance by Borrower of this Agreement, and all other documents contemplated

hereby (i) have been duly and validly authorized, (ii) are enforceable against Borrower in accordance with their terms (except as enforcement may be limited by equitable principles and by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to creditors' rights generally), and (iii) do not violate Borrower's articles or certificate of incorporation, or Borrower's by-laws, or any law or any material agreement or instrument which is binding upon Borrower or its property, and (iv) do not constitute grounds for acceleration of any material indebtedness or obligation under any agreement or instrument which is binding upon Borrower or its property.

3.2 NAME; TRADE NAMES AND STYLES. The name of Borrower set forth in the heading to this Agreement is its correct name. Listed in the Representations, or provided to Silicon under the next sentence, are all prior names of Borrower and all of Borrower's present and prior trade names. Borrower shall give Silicon 30 days' prior written notice before changing its name or doing business under any other name. Borrower has complied, and will in the future comply, in all material respects, with all laws relating to the conduct of business under a fictitious business name, except where the failure to so comply would not reasonably be expected to result in a Material Adverse Change.

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SILICON VALLEY BANK

LOAN AND SECURITY AGREEMENT

3.3 PLACE OF BUSINESS; LOCATION OF COLLATERAL. The address set forth in the heading to this Agreement is Borrower's chief executive office unless notice has been given to Silicon pursuant to this Section 3.3. In addition, Borrower has places of business and Collateral is located only at the locations set forth in the Representations unless notice has been given to Silicon pursuant to this Section 3.3. Borrower will give Silicon at least 30 days prior written notice before opening any additional place of business, changing its chief executive office, or moving any of the Collateral to a location other than Borrower's Address or one of the locations set forth in the Representations, except that Borrower may maintain sales offices in the ordinary course of business at which not more than a total of \$10,000 fair market value of Equipment is located.

3.4 TITLE TO COLLATERAL; PERFECTION; PERMITTED LIENS.

(a) Borrower is now, and will at all times in the future be, the sole owner of all the Collateral, except for items of Equipment which are leased to Borrower. The Collateral now is and will remain free and clear of any and all liens, charges, security interests, encumbrances and adverse claims, except for Permitted Liens. Silicon now has, and will continue to have, a first-priority perfected and enforceable security interest in all of the Collateral, subject only to the Permitted Liens, and Borrower will at all times defend Silicon and the Collateral against all claims of others.

(b) Borrower has set forth in the Representations, or in notices to Silicon given pursuant to this Section 3.4(b), all of Borrower's Deposit Accounts, and Borrower will give Silicon five Business Days advance written notice before establishing any new Deposit Accounts and will cause the institution where any such new Deposit Account is maintained to execute and deliver to Silicon a control agreement in form sufficient to perfect Silicon's security interest in the Deposit Account and otherwise satisfactory to Silicon in its good faith business judgment. Nothing herein limits any requirements which may be set forth in the Schedule as to where Deposit Accounts will be maintained.

(c) In the event that Borrower shall at any time after the date hereof have any commercial tort claims against others, which it is asserting or intends to assert, and in which the potential recovery exceeds \$100,000, Borrower shall promptly notify Silicon thereof in writing and provide Silicon with such information regarding the same as Silicon shall request (unless providing such information would waive the Borrower's attorney-client privilege). Such notification to Silicon shall constitute a grant of a security interest in the commercial tort claim and all proceeds thereof to Silicon, and Borrower shall execute and deliver all such documents and take all such actions as Silicon shall request in connection therewith.

(d) None of the Equipment financed by Silicon now is or will be affixed to any real property in such a manner, or with such intent, as to become a fixture. Borrower is not and will not become a lessee under any real property lease pursuant to which the lessor may obtain any rights in any of the Collateral with priority over the security interest of Silicon. Whenever any Collateral is

located upon premises in which any third party has an interest, Borrower shall, whenever requested by Silicon, use its commercially reasonable efforts to cause such third party to execute and deliver to Silicon, in form acceptable to Silicon, such waivers and subordinations as Silicon shall specify in its good faith business judgment. Borrower will keep in full force and effect, and will comply with all material terms of, any lease of real property where any of the Collateral now or in the future may be located.

3.5 MAINTENANCE OF COLLATERAL. Borrower will maintain the Collateral in good working condition (ordinary wear and tear excepted), and Borrower will not use the Collateral for any unlawful purpose. Borrower will immediately advise Silicon in writing of any material loss or damage to the Collateral.

3.6 BOOKS AND RECORDS. Borrower has maintained and will maintain at Borrower's Address complete and accurate books and records, comprising an accounting system in accordance with GAAP.

3.7 FINANCIAL CONDITION, STATEMENTS AND REPORTS. All financial statements now or in the future delivered to Silicon have been, and will be, prepared in conformity with GAAP and now and in the future will fairly present in all material respects the results of operations and financial condition of Borrower, in accordance with GAAP, at the times and for the periods therein stated. Between the last date covered by any such statement provided to Silicon and the date hereof, there has been no Material Adverse Change.

3.8 TAX RETURNS AND PAYMENTS; PENSION CONTRIBUTIONS. Except to the extent contested pursuant to the next sentence, Borrower has timely filed, and will timely file, all required tax returns and reports (other than such returns and reports that, individually or in the aggregate, are immaterial), and Borrower has timely paid, and will timely pay, all foreign, federal, state and local taxes, assessments, deposits and contributions now or in the future owed by Borrower (other than such taxes, assessments, deposits and contributions that, individually or in the aggregate, are immaterial). Borrower may, however, defer payment of any contested taxes, provided that Borrower (i) in good faith contests Borrower's obligation to pay the taxes by appropriate proceedings promptly and diligently instituted and conducted, (ii) notifies Silicon in writing of the commencement of, and any material development in, any such proceedings involving more than \$50,000, and (iii) posts bonds or takes any other steps required to keep the contested taxes from becoming a lien upon any of the Collateral. As of the date of this Agreement and except as set forth on Schedule 2 to this Agreement, Borrower is unaware of any claims or

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SILICON VALLEY BANK

LOAN AND SECURITY AGREEMENT

adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid, and shall continue to pay all amounts necessary to fund all present and future pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not and will not withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

3.9 COMPLIANCE WITH LAW. Except to the extent that the failure to do so could not reasonably be expected to cause a Material Adverse Change, Borrower has, to the best of its knowledge, complied, and will comply, in all material respects, with all provisions of all foreign, federal, state and local laws and regulations applicable to Borrower, including, but not limited to, those relating to Borrower's ownership of real or personal property, the conduct and licensing of Borrower's business, and all environmental matters.

3.10 LITIGATION. There is no claim, suit, litigation, proceeding or investigation pending or (to best of Borrower's knowledge) threatened against or affecting Borrower in any court or before any governmental agency (or any basis therefor known to Borrower) which could reasonably be expected to result, either separately or in the aggregate, in any Material Adverse Change. Borrower will promptly inform Silicon in writing of any claim, proceeding, litigation or investigation in the future threatened or instituted against Borrower involving any single claim of \$250,000 or more, or involving \$500,000 or more in the aggregate, exclusive of litigation the potential liability in connection with

which is fully insured against.

3.11 USE OF PROCEEDS. All proceeds of all Loans shall be used solely for lawful business purposes. Borrower is not purchasing or carrying any "margin stock" (as defined in Regulation U of the Board of Governors of the Federal Reserve System) and no part of the proceeds of any Loan will be used to purchase or carry any "margin stock" or to extend credit to others for the purpose of purchasing or carrying any "margin stock."

4. ACCOUNTS.

4.1 REPRESENTATIONS RELATING TO ACCOUNTS. Borrower represents and warrants to Silicon as follows: Each Account included in reports of Eligible Accounts by Borrower to Silicon or shown on Borrower's records as Eligible Accounts, shall, on the date each Loan is requested and made, (i) represent an undisputed bona fide existing unconditional obligation of the Account Debtor created by the sale, delivery, and acceptance of goods or the rendition of services, or the non-exclusive licensing of Intellectual Property, in the ordinary course of Borrower's business, and (ii) meet the Minimum Eligibility Requirements set forth in Section 8 below.

4.2 REPRESENTATIONS RELATING TO DOCUMENTS AND LEGAL COMPLIANCE. Borrower represents and warrants to Silicon as follows: All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Accounts are and shall be true and correct and all such invoices, instruments and other documents and all of Borrower's books and records are and shall be genuine and in all respects what they purport to be. All sales and other transactions underlying or giving rise to each Account shall comply in all material respects with all applicable laws and governmental rules and regulations. To the best of Borrower's knowledge, all signatures and endorsements on all documents, instruments, and agreements relating to all Accounts are and shall be genuine, and all such documents, instruments and agreements are and shall be legally enforceable in accordance with their terms.

4.3 SCHEDULES AND DOCUMENTS RELATING TO ACCOUNTS. Borrower shall deliver to Silicon transaction reports and schedules of collections, as provided in the Schedule, on Silicon's standard forms; provided, however, that Borrower's failure to execute and deliver the same shall not affect or limit Silicon's security interest and other rights in all of Borrower's Accounts, nor shall Silicon's failure to advance or lend against a specific Account affect or limit Silicon's security interest and other rights therein. If requested by Silicon, Borrower shall furnish Silicon with copies (or, at Silicon's request, originals) of all contracts, orders, invoices, and other similar documents, and all shipping instructions, delivery receipts, bills of lading, and other evidence of delivery, for any goods the sale or disposition of which gave rise to such Accounts, and Borrower warrants the genuineness of all of the foregoing. Borrower shall also furnish to Silicon an aged accounts receivable trial balance as provided in the Schedule. In addition, Borrower shall deliver to Silicon, on its request, the originals of all instruments, chattel paper, security agreements, guarantees and other documents and property evidencing or securing any Accounts, in the same form as received, with all necessary indorsements, and copies of all credit memos.

4.4 COLLECTION OF ACCOUNTS. Whether or not an Event of Default has occurred, Borrower shall direct all Account Debtors to remit all proceeds of Accounts and General Intangibles to a lockbox account, as Silicon may specify, pursuant to a lockbox agreement in such form as Silicon may specify. Within one Business Day after receipt by Silicon of such proceeds in the lockbox account in immediately available funds, Silicon shall deposit the same into Borrower's operating account at Silicon, if (i) no Default or an Event of Default has occurred and is continuing, and (ii) the Streamline Provisions are in effect (as provided in the Schedule). If the Streamline Provisions are not in effect, any funds received in the lockbox shall be applied to

the Revolving Loans, and Borrower shall hold all payments on, and proceeds of, Accounts and General Intangibles in trust for Silicon, and Borrower shall immediately deliver all such payments and proceeds, which are received by Borrower, to Silicon in their original form, duly endorsed, to be applied to the Revolving Loans, and any excess shall be remitted to the Borrower. If an Event

of Default has occurred and is continuing, any funds received in the lockbox shall be applied to the Obligations in such order as Silicon shall determine, and Borrower shall hold all payments on, and proceeds of, Accounts and General Intangibles in trust for Silicon, and Borrower shall immediately deliver all such payments and proceeds, which are received by Borrower, to Silicon in their original form, duly endorsed, to be applied to the Obligations in such order as Silicon shall determine.

4.5. REMITTANCE OF PROCEEDS. All proceeds arising from the disposition of any Collateral shall be delivered, in kind, by Borrower to Silicon in the original form in which received by Borrower not later than the following Business Day after receipt by Borrower, to be applied to the Obligations in such order as Silicon shall determine; provided that, if no Default or Event of Default has occurred and is continuing, Borrower shall not be obligated to remit to Silicon the proceeds of the sale of worn out or obsolete Equipment disposed of by Borrower in good faith in an arm's length transaction for an aggregate purchase price of \$25,000 or less (for all such transactions in any fiscal year). Borrower agrees that it will not commingle proceeds of Collateral with any of Borrower's other funds or property, but will hold such proceeds separate and apart from such other funds and property and in an express trust for Silicon. Nothing in this Section limits the restrictions on disposition of Collateral set forth elsewhere in this Agreement.

4.6 DISPUTES. Borrower shall notify Silicon all disputes or claims relating to Accounts on the regular reports of Eligible Accounts provided to Silicon, and promptly upon becoming aware of any disputes or claims with respect to Accounts totaling more than \$250,000, Borrower shall notify Silicon of the same. Borrower shall not forgive (completely or partially), compromise or settle any Account for less than payment in full, or agree to do any of the foregoing, except that Borrower may do so, provided that: (i) Borrower does so in good faith, in a commercially reasonable manner, in the ordinary course of business, and in arm's length transactions, which are reported to Silicon on the regular reports provided to Silicon; (ii) no Default or Event of Default has occurred and is continuing; and (iii) taking into account all such discounts, settlements and forgiveness, the total outstanding Loans will not exceed the Credit Limit.

4.7 RETURNS. Provided no Event of Default has occurred and is continuing, if any Account Debtor returns any Inventory to Borrower, Borrower shall promptly determine the reason for such return and promptly issue a credit memorandum to the Account Debtor in the appropriate amount. In the event any attempted return occurs after the occurrence and during the continuance of any Event of Default, Borrower shall hold the returned Inventory in trust for Silicon, and immediately notify Silicon of the return of the Inventory.

4.8 VERIFICATION. Silicon may, from time to time, verify directly with the respective Account Debtors the validity, amount and other matters relating to the Accounts, by means of mail, telephone or otherwise, either in the name of Borrower or Silicon or such other name as Silicon may choose.

4.9 NO LIABILITY. Silicon shall not be responsible or liable for any shortage or discrepancy in, damage to, or loss or destruction of, any goods, the sale or other disposition of which gives rise to an Account, or for any error, act, omission, or delay of any kind occurring in the settlement, failure to settle, collection or failure to collect any Account, or for settling any Account in good faith for less than the full amount thereof, nor shall Silicon be deemed to be responsible for any of Borrower's obligations under any contract or agreement giving rise to an Account. Nothing herein shall, however, relieve Silicon from liability for its own gross negligence or willful misconduct.

5. ADDITIONAL DUTIES OF BORROWER.

5.1 FINANCIAL AND OTHER COVENANTS. Borrower shall at all times comply with the financial and other covenants set forth in the Schedule.

5.2 INSURANCE. Borrower shall, at all times insure all of the tangible personal property Collateral and carry such other business insurance, with insurers reasonably acceptable to Silicon, in such form and amounts as Silicon may reasonably require and that are customary and in accordance with standard practices for Borrower's industry and locations, and Borrower shall provide evidence of such insurance to Silicon. All such property insurance policies shall name Silicon as a loss payee, and shall contain a lenders loss payee endorsement in form reasonably acceptable to Silicon. Upon receipt of the proceeds of any such insurance, Silicon shall apply such proceeds in reduction of the Obligations as Silicon shall determine in its good faith business judgment, except that, provided no Default or Event of Default has occurred and

is continuing, Silicon shall release to Borrower insurance proceeds with respect to Equipment totaling less than \$100,000, which shall be utilized by Borrower for the replacement of the Equipment with respect to which the insurance proceeds were paid. Silicon may require reasonable assurance that the insurance proceeds so released will be so used. If Borrower fails to provide or pay

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for any insurance, Silicon may, but is not obligated to, obtain the same at Borrower's expense. Borrower shall promptly deliver to Silicon copies of all material reports made to insurance companies.

5.3 REPORTS. Borrower, at its expense, shall provide Silicon with the written reports set forth in the Schedule, and such other written reports with respect to Borrower (including budgets, sales projections, operating plans and other financial documentation), as Silicon shall from time to time specify in its good faith business judgment.

5.4 ACCESS TO COLLATERAL, BOOKS AND RECORDS. At reasonable times, and on one Business Day's notice, Silicon, or its agents, shall have the right to inspect the Collateral, and the right to audit and copy Borrower's books and records. Silicon shall take reasonable steps to keep confidential all information obtained in any such inspection or audit, but Silicon shall have the right to disclose any such information to its auditors, regulatory agencies, and attorneys, and pursuant to any subpoena or other legal process. The foregoing inspections and audits shall be at Borrower's expense and the charge therefor shall be \$750 per person per day (or such higher amount as shall represent Silicon's then current standard charge for the same), plus reasonable out-of-pocket expenses. In the event Borrower and Silicon schedule an audit more than 10 days in advance, and Borrower seeks to reschedule the audit with less than 10 days written notice to Silicon, then (without limiting any of Silicon's rights or remedies), Borrower shall pay Silicon a cancellation fee of \$1,000 plus any out-of-pocket expenses incurred by Silicon, to compensate Silicon for the anticipated costs and expenses of the cancellation.

5.5 NEGATIVE COVENANTS. Except as may be permitted in the Schedule, Borrower shall not, without Silicon's prior written consent (which shall be a matter of its good faith business judgment), do any of the following:

(i) merge or consolidate with another corporation or entity, except that any wholly-owned subsidiary of Borrower may merge with and into Borrower;

(ii) acquire any assets, except for (A) acquisitions in the ordinary course of business, and (B) acquisitions of assets (other than equity interests in other Persons) for an aggregate consideration of not more than \$1,000,000 during the term of this Agreement;

(iii) engage in any business activities substantially different from Borrower's present business activities;

(iv) sell or transfer any Collateral, except for (A) the sale of finished Inventory in the ordinary course of Borrower's business, (B) the non-exclusive licensing of Intellectual Property in the ordinary course of Borrower's business, (C) the sale of obsolete or unneeded Equipment in the ordinary course of business, and (D) the sale of Borrower's Accounts to Silicon pursuant to that certain Restated Non-Recourse Receivables Purchase and Modification Agreement, dated December 14, 2001 (as amended, restated, supplemented, or otherwise modified from time to time), between Borrower and Silicon;

(v) store any Inventory or other Collateral with any warehouseman or other third party, except as disclosed in the Representations or as otherwise disclosed in writing to Silicon;

(vi) sell any Inventory on a sale-or-return, guaranteed sale, consignment, or other contingent basis (unless such sales are not reported or classified, in any reporting delivered by Borrower to Silicon, as generating Eligible Accounts);

(vii) make any loans of any money or other assets, except for Permitted Investments;

(viii) create, incur, assume, or be liable for any Indebtedness, other than Permitted Indebtedness;

(ix) guarantee or otherwise become liable with respect to the obligations of another party or entity (unless such guarantee or other liability of Borrower constitutes Permitted Indebtedness);

(x) [reserved];

(xi) pay or declare any dividends on Borrower's stock (except for dividends payable solely in stock of Borrower);

(xii) redeem, retire, purchase or otherwise acquire, directly or indirectly, any of Borrower's stock;

(xiii) engage, directly or indirectly, in any business other than the businesses currently engaged in by Borrower or reasonably related thereto; or

(xiv) dissolve or elect to dissolve; or

(xvi) make any Investment other than a Permitted Investment.

Transactions permitted by the foregoing provisions of this Section are only permitted if no Default or Event of Default would occur as a result of such transaction. Notwithstanding the foregoing, the Borrower may make loans to and/or Investments in its wholly-owned subsidiaries, provided that the total of all such loans and Investments and all other transfers of every kind to such subsidiaries shall not exceed a total of \$4,000,000 in any calendar month in the aggregate, or a total of more than \$25,000,000 in any fiscal year in the aggregate, and provided that Borrower and its subsidiaries at all times shall not maintain

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more than \$6,000,000, in the aggregate, of cash and cash equivalents in deposit and investment accounts of Borrower or any such subsidiary outside the United States.

5.6 LITIGATION COOPERATION. Should any third-party suit or proceeding be instituted by or against Silicon with respect to any Collateral or relating to Borrower, Borrower shall, without expense to Silicon, make available Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Silicon may deem them reasonably necessary in order to prosecute or defend any such suit or proceeding.

5.7 FURTHER ASSURANCES. Borrower agrees, at its expense, on request by Silicon, to execute all documents and take all actions, as Silicon, may, in its good faith business judgment, deem necessary or useful in order to perfect and maintain Silicon's perfected first-priority security interest in the Collateral (subject to Permitted Liens), and in order to fully consummate the transactions contemplated by this Agreement.

6. TERM OF REVOLVING LOAN FACILITY AND TERM OF AGREEMENT.

6.1 TERM OF REVOLVING LOAN FACILITY. The period during which Revolving Loans (as defined in the Schedule) will be made (the "Revolving Loan Period") shall be from the date of this Agreement to the Revolving Loan Maturity Date set forth in the Schedule, unless sooner terminated in accordance with the terms of this Agreement. On and after the Revolving Loan Maturity Date or any earlier termination of this Agreement, no further Revolving Loans will be made. On the Revolving Loan Maturity Date or on any earlier termination of this Agreement, Borrower shall pay in full all outstanding Revolving Loans and any accrued and unpaid interest thereon.

6.2 EARLY TERMINATION OF REVOLVING LOAN FACILITY AT BORROWER'S OPTION. The Revolving Loan Period may be terminated prior to the Revolving Loan Maturity Date by Borrower, effective three business days after written notice of termination is given by Borrower to Silicon.

6.3 TERM OF AGREEMENT. The term of this Agreement shall be from the date of this Agreement to the later of the following (the "Maturity Date"): (i) the termination of the Revolving Loan Period, or (ii) the date the last installment of principal on the Equipment Loans is due. On the Maturity Date or on any

earlier termination of this Agreement Borrower shall pay in full all Loans and all other outstanding Obligations, and notwithstanding any termination of this Agreement all of Silicon's security interests and all of Silicon's other rights and remedies shall continue in full force and effect until payment and performance in full of all Obligations.

6.4 EARLY TERMINATION OF AGREEMENT. This Agreement may be terminated prior to the Maturity Date as follows: (i) by Borrower, effective three business days after written notice of termination is given to Silicon; or (ii) by Silicon at any time after the occurrence of an Event of Default, without notice, effective immediately.

6.5 TERMINATION FEE. If the Revolving Loan Period is terminated by Borrower under Section 6.2, or if this Agreement is terminated by Borrower or by Silicon under Section 6.4, then Borrower shall pay to Silicon a termination fee Borrower shall pay to Silicon a termination fee in an amount equal to three quarters of one percent (0.75%) of the Maximum Revolving Line (as defined in the Schedule), provided that such fee shall not be payable if the outstanding Obligations are repaid with the proceeds of new financing from Silicon. The termination fee shall be due and payable on the effective date of termination and thereafter shall bear interest at a rate equal to the highest rate applicable to any of the Obligations..

6.6 PAYMENT OF OBLIGATIONS. On the Maturity Date or on any earlier effective date of termination, Borrower shall pay and perform in full all outstanding Loans and other Obligations, whether evidenced by installment notes or otherwise, and whether or not all or any part of such Obligations are otherwise then due and payable. Without limiting the generality of the foregoing, if on the Maturity Date, or on any earlier effective date of termination, there are any outstanding Letters of Credit issued by Silicon or issued by another institution based upon an application, guarantee, indemnity or similar agreement on the part of Silicon, then on such date Borrower shall provide to Silicon cash collateral in an amount equal to 105% of the face amount of all such Letters of Credit plus all interest, fees and cost due or to become due in connection therewith (as estimated by Silicon in its good faith business judgment), to secure all of the Obligations relating to said Letters of Credit, pursuant to Silicon's then standard form cash pledge agreement. Notwithstanding any termination of this Agreement, all of Silicon's security interests in all of the Collateral and all of the terms and provisions of this Agreement shall continue in full force and effect until all Obligations have been paid and performed in full; provided that Silicon may, in its sole discretion, refuse to make any further Loans after termination. No termination shall in any way affect or impair any right or remedy of Silicon, nor shall any such termination relieve Borrower of any Obligation to Silicon, until all of the Obligations have been paid and performed in full. Upon payment and performance in full of all the Obligations and termination of this Agreement, Silicon shall promptly terminate its financing statements with respect to the Borrower and deliver to Borrower such other documents as may be required to fully terminate Silicon's security interests.

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7. EVENTS OF DEFAULT AND REMEDIES.

7.1 EVENTS OF DEFAULT. The occurrence of any of the following events shall constitute an "Event of Default" under this Agreement, and Borrower shall give Silicon immediate written notice thereof: (a) Any warranty, representation, statement, report or certificate made or delivered to Silicon by Borrower or any of Borrower's officers, employees or agents, now or in the future, shall be untrue or misleading in a material respect when made or deemed to be made; or (b) Borrower shall fail to pay when due any Loan or any interest thereon or any other monetary Obligation; or (c) the total Loans and other Obligations outstanding at any time shall exceed the Credit Limit; or (d) Borrower shall fail to comply with any of the financial covenants set forth in the Schedule, or shall fail to perform any other non-monetary Obligation which by its nature cannot be cured, or shall fail to permit Silicon to conduct an inspection or audit as specified in Section 5.4 hereof; or (e) Borrower shall fail to perform any other non-monetary Obligation, which failure is not cured within five Business Days after the date due; or (f) any levy, assessment, attachment, seizure, lien or encumbrance (other than a Permitted Lien) is made on all or any part of the Collateral which is not cured within 10 days after the occurrence of

the same; or (g) any default or event of default occurs under any obligation secured by a Permitted Lien, which is not cured within any applicable cure period or waived in writing by the holder of the Permitted Lien; or (h) Borrower breaches any material contract or obligation, which has resulted or may reasonably be expected to result in a Material Adverse Change; or (i) Dissolution, termination of existence, insolvency or business failure of Borrower; or appointment of a receiver, trustee or custodian, for all or any part of the property of, assignment for the benefit of creditors by, or the commencement of any proceeding by Borrower under any reorganization, bankruptcy, insolvency, arrangement, readjustment of debt, dissolution or liquidation law or statute of any jurisdiction, now or in the future in effect; or (j) the commencement of any proceeding against Borrower or any guarantor of any of the Obligations under any reorganization, bankruptcy, insolvency, arrangement, readjustment of debt, dissolution or liquidation law or statute of any jurisdiction, now or in the future in effect, which is not cured by the dismissal thereof within 30 days after the date commenced; or (k) revocation or termination of, or limitation or denial of liability upon, any guaranty of the Obligations or any attempt to do any of the foregoing, or commencement of proceedings by any guarantor of any of the Obligations under any bankruptcy or insolvency law; or (l) revocation or termination of, or limitation or denial of liability upon, any pledge of any certificate of deposit, securities or other property or asset of any kind pledged by any third party to secure any or all of the Obligations, or any attempt to do any of the foregoing, or commencement of proceedings by or against any such third party under any bankruptcy or insolvency law; or (m) Borrower makes any payment on account of any indebtedness or obligation which has been subordinated to the Obligations other than as permitted in the applicable subordination agreement, or if any Person who has subordinated such indebtedness or obligations terminates or in any way limits his subordination agreement; or (n) any "person" or "group" (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934), becomes the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors, empowering such "person" or "group" (who theretofore did not have the power to elect a majority of the board of directors of Borrower) to elect a majority of the board of directors of Borrower; or (o) Borrower shall generally not pay its debts as they become due, or Borrower shall conceal, remove or transfer any part of its property, with intent to hinder, delay or defraud its creditors, or make or suffer any transfer of any of its property which may be fraudulent under any bankruptcy, fraudulent conveyance or similar law; or (p) a Material Adverse Change shall occur. Silicon may cease making any Loans hereunder during any of the above cure periods, and thereafter if an Event of Default has occurred and is continuing.

7.2 REMEDIES. Upon the occurrence and during the continuance of any Event of Default, and at any time thereafter, Silicon, at its option, and without notice or demand of any kind (all of which are hereby expressly waived by Borrower), may do any one or more of the following: (a) Cease making Loans or otherwise extending credit to Borrower under this Agreement or any other Loan Document; (b) Accelerate and declare all or any part of the Obligations to be immediately due, payable, and performable, notwithstanding any deferred or installment payments allowed by any instrument evidencing or relating to any Obligation; (c) Take possession of any or all of the Collateral wherever it may be found, and for that purpose Borrower hereby authorizes Silicon without judicial process to enter onto any of Borrower's

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premises without interference to search for, take possession of, keep, store, or remove any of the Collateral, and remain on the premises or cause a custodian to remain on the premises in exclusive control thereof, without charge for so long as Silicon deems it necessary, in its good faith business judgment, in order to complete the enforcement of its rights under this Agreement or any other agreement; provided, however, that should Silicon seek to take possession of any of the Collateral by court process, Borrower hereby irrevocably waives: (i) any bond and any surety or security relating thereto required by any statute, court rule or otherwise as an incident to such possession; (ii) any demand for possession prior to the commencement of any suit or action to recover possession thereof; and (iii) any requirement that Silicon retain possession of, and not dispose of, any such Collateral until after trial or final judgment; (d) Require Borrower to assemble any or all of the Collateral and make it available to

Silicon at places designated by Silicon which are reasonably convenient to Silicon and Borrower, and to remove the Collateral to such locations as Silicon may deem advisable; (e) Complete the processing, manufacturing or repair of any Collateral prior to a disposition thereof and, for such purpose and for the purpose of removal, Silicon shall have the right to use Borrower's premises, vehicles, hoists, lifts, cranes, and other Equipment and all other property without charge; (f) Sell, lease or otherwise dispose of any of the Collateral, in its condition at the time Silicon obtains possession of it or after further manufacturing, processing or repair, at one or more public and/or private sales, in lots or in bulk, for cash, exchange or other property, or on credit, and to adjourn any such sale from time to time without notice other than oral announcement at the time scheduled for sale. Silicon shall have the right to conduct such disposition on Borrower's premises without charge, for such time or times as Silicon deems reasonable, or on Silicon's premises, or elsewhere and the Collateral need not be located at the place of disposition. Silicon may directly or through any affiliated company purchase or lease any Collateral at any such public disposition, and if permissible under applicable law, at any private disposition. Any sale or other disposition of Collateral shall not relieve Borrower of any liability Borrower may have if any Collateral is defective as to title or physical condition or otherwise at the time of sale; (g) Demand payment of, and collect any Accounts and General Intangibles comprising Collateral and, in connection therewith, Borrower irrevocably authorizes Silicon to endorse or sign Borrower's name on all collections, receipts, instruments and other documents, to take possession of and open mail addressed to Borrower and remove therefrom payments made with respect to any item of the Collateral or proceeds thereof, and, in Silicon's good faith business judgment, to grant extensions of time to pay, compromise claims and settle Accounts and the like for less than face value; (h) Offset against any sums in any of Borrower's general, special or other Deposit Accounts with Silicon against any or all of the Obligations; and (i) Demand and receive possession of any of Borrower's federal and state income tax returns and the books and records utilized in the preparation thereof or referring thereto. All reasonable attorneys' fees, expenses, costs, liabilities and obligations incurred by Silicon with respect to the foregoing shall be added to and become part of the Obligations, shall be due on demand, and shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations. Without limiting any of Silicon's rights and remedies, from and after the occurrence and during the continuance of any Event of Default, the interest rate applicable to the Obligations shall be increased by an additional four percent per annum (the "Default Rate").

7.3 STANDARDS FOR DETERMINING COMMERCIAL REASONABLENESS. Borrower and Silicon agree that a sale or other disposition (collectively, "sale") of any Collateral which complies with the following standards will conclusively be deemed to be commercially reasonable: (i) Notice of the sale is given to Borrower at least ten days prior to the sale, and, in the case of a public sale, notice of the sale is published at least five days before the sale in a newspaper of general circulation in the county where the sale is to be conducted; (ii) Notice of the sale describes the collateral in general, non-specific terms; (iii) The sale is conducted at a place designated by Silicon, with or without the Collateral being present; (iv) The sale commences at any time between 8:00 a.m. and 6:00 p.m.; (v) Payment of the purchase price in cash or by cashier's check or wire transfer is required; (vi) With respect to any sale of any of the Collateral, Silicon may (but is not obligated to) direct any prospective purchaser to ascertain directly from Borrower any and all information concerning the same. Silicon shall be free to employ other methods of noticing and selling the Collateral, in its discretion, if they are commercially reasonable.

7.4 POWER OF ATTORNEY. Upon the occurrence and during the continuance of any Event of Default, without limiting Silicon's other rights and remedies, Borrower grants to Silicon an irrevocable power of attorney coupled with an interest, authorizing and permitting Silicon (acting through any of its employees, attorneys or agents) at any time, at its option, but without obligation, with or without notice to Borrower, and at Borrower's expense, to do any or all of the following, in Borrower's name or otherwise, but Silicon agrees that if it exercises any right hereunder, it will do so in good faith and in a commercially reasonable manner: (a) Execute on behalf of Borrower any documents that Silicon may, in its good faith business judgment, deem advisable in order to perfect and maintain Silicon's security interest in the Collateral, or in order to exercise a right of Borrower or Silicon, or in order to fully consummate all the transactions contemplated under this Agreement, and all other Loan Documents; (b) Execute on behalf of Borrower, any invoices relating to any Account, any draft against any Account Debtor and any notice to any Account Debtor, any proof of claim in bankruptcy, any Notice of Lien, claim of mechanic's, materialman's or other lien, or assignment or satisfaction of mechanic's, materialman's or

other lien; (c) Take control in any manner of any cash or non-cash items of payment or proceeds of Collateral; endorse the name of Borrower upon any instruments, or documents, evidence of payment or Collateral that may come into Silicon's possession; (d) Endorse all checks and other forms of remittances received by Silicon; (e) Pay, contest or settle any lien, charge, encumbrance, security interest and adverse claim in or to any of the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; (f) Grant extensions of time to pay, compromise claims and settle Accounts and General Intangibles for less than face value and execute all releases and other documents in connection therewith; (g) Pay any sums required on account of Borrower's taxes or to secure the release of any liens therefor, or both; (h) Settle and adjust, and give releases of, any insurance claim that relates to any of the Collateral and obtain payment therefor; (i) Instruct any third party having custody or control of any books or records belonging to, or relating to, Borrower to give Silicon the same rights of access and other rights with respect thereto as Silicon has under this Agreement; and (j) Take any action or pay any sum required of Borrower pursuant to this Agreement and any other Loan Documents. Any and all reasonable sums paid and any and all reasonable costs, expenses, liabilities, obligations and attorneys' fees incurred by Silicon with respect to the foregoing shall be added to and become part of the Obligations, shall be payable on demand, and

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shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations. In no event shall Silicon's rights under the foregoing power of attorney or any of Silicon's other rights under this Agreement be deemed to indicate that Silicon is in control of the business, management or properties of Borrower.

7.5 APPLICATION OF PROCEEDS. All proceeds realized as the result of any sale of the Collateral shall be applied by Silicon first to the reasonable costs, expenses, liabilities, obligations and attorneys' fees incurred by Silicon in the exercise of its rights under this Agreement, second to the interest due upon any of the Obligations, and third to the principal of the Obligations, in such order as Silicon shall determine in its sole discretion. Any surplus shall be paid to Borrower or other persons legally entitled thereto; Borrower shall remain liable to Silicon for any deficiency. If, Silicon, in its good faith business judgment, directly or indirectly enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Silicon shall have the option, exercisable at any time, in its good faith business judgment, of either reducing the Obligations by the principal amount of purchase price or deferring the reduction of the Obligations until the actual receipt by Silicon of the cash therefor.

7.6 REMEDIES CUMULATIVE. In addition to the rights and remedies set forth in this Agreement, Silicon shall have all the other rights and remedies accorded a secured party under the California Uniform Commercial Code and under all other applicable laws, and under any other instrument or agreement now or in the future entered into between Silicon and Borrower, and all of such rights and remedies are cumulative and none is exclusive. Exercise or partial exercise by Silicon of one or more of its rights or remedies shall not be deemed an election, nor bar Silicon from subsequent exercise or partial exercise of any other rights or remedies. The failure or delay of Silicon to exercise any rights or remedies shall not operate as a waiver thereof, but all rights and remedies shall continue in full force and effect until all of the Obligations have been fully paid and performed.

8. DEFINITIONS. As used in this Agreement, the following terms have the following meanings:

"Account Debtor" means the obligor on an Account.

"Accounts" means all present and future "accounts" as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all accounts receivable and other sums owing to Borrower.

"Affiliate" means, with respect to any Person, a relative, partner, shareholder, director, officer, or employee of such Person, or any parent or subsidiary of such Person, or any Person controlling, controlled by or under

common control with such Person.

"Business Day" means a day on which Silicon is open for business.

"Code" means the Uniform Commercial Code as adopted and in effect in the State of California from time to time.

"Collateral" has the meaning set forth in Section 2 above.

"Contingent Obligation" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (i) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (ii) any obligations for undrawn letters of credit for the account of that Person; and (iii) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under the guarantee or other support arrangement.

"continuing" and "during the continuance of" when used with reference to a Default or Event of Default means that the Default or Event of Default has occurred and has not been either waived in writing by Silicon or cured within any applicable cure period.

"Default" means any event which with notice or passage of time or both, would constitute an Event of Default.

"Default Rate" has the meaning set forth in Section 7.2 above.

"Deposit Accounts" means all present and future "deposit accounts" as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all general and special bank accounts, demand accounts, checking accounts, savings accounts and certificates of deposit.

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"Eligible Accounts" means Accounts and General Intangibles arising in the ordinary course of Borrower's business from the sale of goods or the rendition of services, or the non-exclusive licensing of Intellectual Property, which Silicon, in its good faith business judgment, shall deem eligible for borrowing. Without limiting the fact that the determination of which Accounts are eligible for borrowing is a matter of Silicon's good faith business judgment, the following (the "Minimum Eligibility Requirements") are the minimum requirements for an Account to be an Eligible Account: (i) the Account must not be outstanding for more than 90 days from its invoice date (the "Eligibility Period"), (ii) the Account must not represent progress billings, or be due under a fulfillment or requirements contract with the Account Debtor, (iii) the Account must not be subject to any contingencies (including Accounts arising from sales on consignment, guaranteed sale or other terms pursuant to which payment by the Account Debtor may be conditional), (iv) the Account must not be owing from an Account Debtor with whom Borrower has any dispute (whether or not relating to the particular Account), (v) the Account must not be owing from an Affiliate of Borrower, (vi) the Account must not be owing from an Account Debtor which is subject to any insolvency or bankruptcy proceeding, or whose financial condition is not acceptable to Silicon, or which, fails or goes out of a material portion of its business, (vii) the Account must not be owing from the United States or any department, agency or instrumentality thereof (unless there has been compliance, to Silicon's satisfaction, with the United States Assignment of Claims Act), (viii) the Account must not be owing from an Account Debtor located outside the United States or Canada (except for Accounts owing from Siemens or from Sumitomo Electric, and except for Accounts pre-approved by Silicon in its discretion in writing, or backed by a letter of credit satisfactory to Silicon, or FCIA insured satisfactory to Silicon), (ix) the Account must not be owing

from an Account Debtor to whom Borrower is or may be liable, whether for goods purchased from such Account Debtor or in connection with deferred revenue or otherwise (but, in such case, the Account will be deemed not eligible only to the extent of any amounts owed or potentially owing by Borrower to such Account Debtor). Accounts owing from one Account Debtor will not be deemed Eligible Accounts to the extent they exceed 25% of the total Accounts outstanding (except that said percentage shall be 35% in the case of Eligible Accounts owing from Comcast Corporation. In addition, if more than 50% of the Accounts owing from an Account Debtor are outstanding for a period longer than their Eligibility Period (without regard to unapplied credits) or are otherwise not eligible Accounts, then all Accounts owing from that Account Debtor will be deemed ineligible for borrowing. Silicon may, from time to time, in its good faith business judgment, revise the Minimum Eligibility Requirements, upon written notice to Borrower. Eligible Accounts will not include Accounts purchased by Silicon from Borrower pursuant to that certain Restated Non-Recourse Receivables Purchase Agreement dated September 25, 2001 which shall continue in effect (as amended from time to time, and with all extensions and renewals thereof, the "Purchase Agreement").

"Equipment" means all present and future "equipment" as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"Event of Default" means any of the events set forth in Section 7.1 of this Agreement.

"GAAP" means generally accepted accounting principles consistently applied.

"General Intangibles" means all present and future "general intangibles" as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all Intellectual Property, payment intangibles, royalties, contract rights, goodwill, franchise agreements, purchase orders, customer lists, route lists, telephone numbers, domain names, claims, income tax refunds, security and other deposits, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"good faith business judgment" means honesty in fact and good faith (as defined in Section 1201 of the Code) in the exercise of Silicon's business judgment.

"including" means including (but not limited to).

"Indebtedness" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations and (d) Contingent Obligations.

"Intellectual Property" means all present and future (a) copyrights, copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished, (b) trade secret rights, including all rights to unpatented inventions and know-how, and confidential information; (c) mask work or similar rights available for the protection of semiconductor chips; (d) patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same; (e) trademarks, servicemarks, trade styles, and trade names, whether or not any of the foregoing are registered,

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and all applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by any such trademarks; (f) computer software and computer software products; (g) designs and design rights; (h) technology; (i) all claims for damages by way of past, present and future infringement of any of the rights included above; (j) all licenses or other rights to use any property or rights

of a type described above.

"Inventory" means all present and future "inventory" as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"Investment" is any beneficial ownership of (including stock, partnership interest or other securities) any Person, or any loan, advance or capital contribution to any Person.

"Investment Property" means all present and future investment property, securities, stocks, bonds, debentures, debt securities, partnership interests, limited liability company interests, options, security entitlements, securities accounts, commodity contracts, commodity accounts, and all financial assets held in any securities account or otherwise, and all options and warrants to purchase any of the foregoing, wherever located, and all other securities of every kind, whether certificated or uncertificated.

"Loan Documents" means, collectively, this Agreement, the Representations, and all other present and future documents, instruments and agreements between Silicon and Borrower, including, but not limited to those relating to this Agreement, and all amendments and modifications thereto and replacements therefor.

"Material Adverse Change" means any of the following: (i) a material adverse change in the business, operations, or financial or other condition of the Borrower, or (ii) a material impairment of the prospect of repayment of any portion of the Obligations; or (iii) a material impairment of the value or priority of Silicon's security interests in the Collateral.

"Obligations" means all present and future Loans, advances, debts, liabilities, obligations, guaranties, covenants, duties and indebtedness at any time owing by Borrower to Silicon, whether evidenced by this Agreement or any note or other instrument or document, or otherwise (including without limitation those arising under or in connection with the Purchase Agreement and the Acom Amendment, as defined in the Schedule), whether arising from an extension of credit, opening of a letter of credit, banker's acceptance, loan, guaranty, indemnification or otherwise, whether direct or indirect (including, without limitation, those acquired by assignment and any participation by Silicon in Borrower's debts owing to others), absolute or contingent, due or to become due, including, without limitation, all interest, charges, expenses, fees, attorney's fees, expert witness fees, audit fees, letter of credit fees, collateral monitoring fees, closing fees, facility fees, termination fees, minimum interest charges and any other sums chargeable to Borrower under this Agreement or under any other Loan Documents

"Other Property" means the following as defined in the California Uniform Commercial Code in effect on the date hereof with such additions to such term as may hereafter be made, and all rights relating thereto: all present and future "commercial tort claims" (including without limitation any commercial tort claims identified in the Representations), "documents", "instruments", "promissory notes", "chattel paper", "letters of credit", "letter-of-credit rights", "fixtures", "farm products" and "money"; and all other goods and personal property of every kind, tangible and intangible, whether or not governed by the California Uniform Commercial Code.

"Permitted Indebtedness" is: (a) Borrower's indebtedness to Silicon under this Agreement or any other Loan Document; (b) Indebtedness existing on the Closing Date and shown on Schedule 2; (c) Indebtedness subordinated to the Obligations pursuant to a subordination agreement on Silicon's standard form or otherwise acceptable to Silicon in its good faith business judgment; (d) Indebtedness secured by Permitted Liens; (e) Indebtedness of Borrower to any subsidiary of Borrower; and (f) other Indebtedness in an amount not exceeding \$500,000 at any time outstanding.

"Permitted Investments" are: (a) Investments shown on Schedule 2 and existing on the Closing Date; and (b) (i) marketable direct obligations issued or unconditionally guaranteed by the United States or its agency or any State maturing within 1 year from its acquisition, (ii) commercial paper maturing no more than 1 year after its creation and having the highest rating from either

Standard & Poor's Corporation or Moody's Investors Service, Inc., and (iii) Silicon's certificates of deposit issued maturing no more than 1 year after issue, and (iv) other Investments provided for in Borrower's investment policy as approved by Silicon from time to time; (c) Investments accepted in connection with sales or transfers permitted by Section 5.5; (d) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to employee stock purchase plans or agreements approved by Borrower's Board of Directors, the proceeds of which are concurrently paid to Borrower in consideration for its stock; (e) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes

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with, customers or suppliers arising in the ordinary course of business; (f) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers in the ordinary course of business.

"Permitted Liens" means the following: (i) purchase money security interests in specific items of Equipment; (ii) leases of specific items of Equipment, the proceeds thereof, accessions thereto and replacements thereof; (iii) liens for taxes not yet payable; (iv) additional security interests and liens consented to in writing by Silicon, which consent may be withheld in its good faith business judgment; (v) security interests being terminated substantially concurrently with this Agreement; (vi) liens of materialmen, mechanics, warehousemen, carriers, or other similar liens arising in the ordinary course of business and securing obligations which are not delinquent; (vii) liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by liens of the type described above in clauses (i) or (ii) above, provided that any extension, renewal or replacement lien is limited to the property encumbered by the existing lien and the principal amount of the indebtedness being extended, renewed or refinanced does not increase; (viii) Liens in favor of customs and revenue authorities which secure payment of customs duties in connection with the importation of goods (ix) Liens in favor of other financial institutions arising in connection with Borrower's deposit accounts or securities accounts held at such institutions, provided that Silicon has a first-priority perfected security interest in such accounts and the amounts and securities held therein; (x) Leases or subleases of real property and non-exclusive licenses or sublicenses granted in the ordinary course of Borrower's business, (xi) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default; and (xii) Liens in connection with surety or appeals bonds or letters of credit securing such bonds or reimbursement obligations in connections with statutory obligations, bids, tenders or otherwise in the ordinary course of business in an aggregate amount not exceeding \$100,000 for all of the foregoing at any time outstanding. Silicon will have the right to require, as a condition to its consent under subparagraph (iv) above, that the holder of the additional security interest or lien sign an intercreditor agreement on Silicon's then standard form, acknowledge that the security interest is subordinate to the security interest in favor of Silicon, and agree not to take any action to enforce its subordinate security interest so long as any Obligations remain outstanding, and that Borrower agree that any uncured default in any obligation secured by the subordinate security interest shall also constitute an Event of Default under this Agreement.

"Person" means any individual, sole proprietorship, partnership, joint venture, trust, unincorporated organization, association, corporation, government, or any agency or political division thereof, or any other entity.

"Representations" means the written Representations and Warranties provided by Borrower to Silicon referred to in the Schedule.

"Reserves" means, as of any date of determination, such amounts as Silicon may from time to time establish and revise in its good faith business judgment, reducing the amount of Loans, Letters of Credit and other financial accommodations which would otherwise be available to Borrower under the lending formula(s) provided in the Schedule: (a) to reflect events, conditions, contingencies or risks which, as determined by Silicon in its good faith business judgment, do or may adversely affect (i) the Collateral or any other

property which is security for the Obligations or its value (including without limitation any increase in delinquencies of Accounts), (ii) the assets, business or prospects of Borrower or any Guarantor, or (iii) the security interests and other rights of Silicon in the Collateral (including the enforceability, perfection and priority thereof); or (b) to reflect Silicon's good faith belief that any collateral report or financial information furnished by or on behalf of Borrower or any Guarantor to Silicon is or may have been incomplete, inaccurate or misleading in any material respect; or (c) in respect of any state of facts which Silicon determines in good faith constitutes an Event of Default or may, with notice or passage of time or both, constitute an Event of Default.

Other Terms. All accounting terms used in this Agreement, unless otherwise indicated, shall have the meanings given to such terms in accordance with GAAP, consistently applied. All other terms contained in this Agreement, unless otherwise indicated, shall have the meanings provided by the Code, to the extent such terms are defined therein.

9. GENERAL PROVISIONS.

9.1 INTEREST COMPUTATION. In computing interest on the Obligations, all checks, wire transfers and other items of payment received by Silicon (including proceeds of Accounts and payment of the Obligations in full) shall be deemed applied by Silicon on account of the Obligations two (2) Business Days after receipt by Silicon of immediately available funds, and, for purposes of the foregoing, any such funds received after 12:00 Noon on any day shall be deemed received on the next Business Day. Silicon shall not, however, be required to credit Borrower's account for the amount of any item of payment which is unsatisfactory to Silicon in its good faith business judgment, and Silicon may charge Borrower's loan account for the amount of any item of payment which is returned to Silicon unpaid.

9.2 APPLICATION OF PAYMENTS. All payments with respect to the Obligations may be applied, and in Silicon's good faith business judgment reversed and re-applied, to the Obligations, in such order and manner as Silicon shall determine in its good faith business judgment.

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9.3 CHARGES TO ACCOUNTS. Silicon may, in its discretion, require that Borrower pay monetary Obligations in cash to Silicon, or charge them to Borrower's Loan account, in which event they will bear interest at the same rate applicable to the Loans. Silicon may also, in its discretion, charge any monetary Obligations to Borrower's Deposit Accounts maintained with Silicon.

9.4 MONTHLY ACCOUNTINGS. Silicon shall provide Borrower monthly with an account of advances, charges, expenses and payments made pursuant to this Agreement. Such account shall be deemed correct, accurate and binding on Borrower and an account stated (except for reverses and reapplications of payments made and corrections of errors discovered by Silicon), unless Borrower notifies Silicon in writing to the contrary within 60 days after such account is rendered, describing the nature of any alleged errors or omissions.

9.5 NOTICES. All notices to be given under this Agreement shall be in writing and shall be given either personally or by reputable private delivery service or by regular first-class mail, or certified mail return receipt requested, addressed to Silicon or Borrower at the addresses shown in the heading to this Agreement, or at any other address designated in writing by one party to the other party. Notices to Silicon shall be directed to the Commercial Finance Division, to the attention of the Division Manager or the Division Credit Manager. All notices shall be deemed to have been given upon delivery in the case of notices personally delivered, or at the expiration of one Business Day following delivery to the private delivery service, or two Business Days following the deposit thereof in the United States mail, with postage prepaid.

9.6 SEVERABILITY. Should any provision of this Agreement be held by any court of competent jurisdiction to be void or unenforceable, such defect shall not affect the remainder of this Agreement, which shall continue in full force and effect.

9.7 INTEGRATION. This Agreement and such other written agreements, documents and instruments as may be executed in connection herewith are the final, entire

and complete agreement between Borrower and Silicon and supersede all prior and contemporaneous negotiations and oral representations and agreements, all of which are merged and integrated in this Agreement. There are no oral understandings, representations or agreements between the parties which are not set forth in this Agreement or in other written agreements signed by the parties in connection herewith.

9.8 WAIVERS; INDEMNITY. The failure of Silicon at any time or times to require Borrower to strictly comply with any of the provisions of this Agreement or any other Loan Document shall not waive or diminish any right of Silicon later to demand and receive strict compliance therewith. Any waiver of any default shall not waive or affect any other default, whether prior or subsequent, and whether or not similar. None of the provisions of this Agreement or any other Loan Document shall be deemed to have been waived by any act or knowledge of Silicon or its agents or employees, but only by a specific written waiver signed by an authorized officer of Silicon and delivered to Borrower. Borrower waives the benefit of all statutes of limitations relating to any of the Obligations or this Agreement or any other Loan Document, and Borrower waives demand, protest, notice of protest and notice of default or dishonor, notice of payment and nonpayment, release, compromise, settlement, extension or renewal of any commercial paper, instrument, account, General Intangible, document or guaranty at any time held by Silicon on which Borrower is or may in any way be liable, and notice of any action taken by Silicon, unless expressly required by this Agreement. Borrower hereby agrees to indemnify Silicon and its affiliates, subsidiaries, parent, directors, officers, employees, agents, and attorneys, and to hold them harmless from and against any and all claims, debts, liabilities, demands, obligations, actions, causes of action, penalties, costs and expenses (including reasonable attorneys' fees), of every kind, which they may sustain or incur based upon or arising out of any of the Obligations, or any relationship or agreement between Silicon and Borrower, or any other matter, relating to Borrower or the Obligations; provided that this indemnity shall not extend to damages proximately caused by the indemnitee's own gross negligence or willful misconduct. Notwithstanding any provision in this Agreement to the contrary, the indemnity agreement set forth in this Section shall survive any termination of this Agreement and shall for all purposes continue in full force and effect.

9.9 NO LIABILITY FOR ORDINARY NEGLIGENCE. Neither Silicon, nor any of its directors, officers, employees, agents, attorneys or any other Person affiliated with or representing Silicon shall be liable for any claims, demands, losses or damages, of any kind whatsoever, made, claimed, incurred or suffered by Borrower or any other party through the ordinary negligence of Silicon, or any of its directors, officers, employees, agents, attorneys or any other Person affiliated with or representing Silicon, but nothing herein shall relieve Silicon from liability for its own gross negligence or willful misconduct.

9.10 AMENDMENT. The terms and provisions of this Agreement may not be waived or amended, except in a writing executed by Borrower and a duly authorized officer of Silicon.

9.11 TIME OF ESSENCE. Time is of the essence in the performance by Borrower of each and every obligation under this Agreement.

9.12 ATTORNEYS FEES AND COSTS. Borrower shall reimburse Silicon for all reasonable attorneys' fees and all filing, recording, search, title insurance, appraisal, audit, and other reasonable costs incurred by Silicon, pursuant to, or in connection with, or relating to this Agreement (whether or not a lawsuit is filed), including, but not limited to, any reasonable

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attorneys' fees and costs Silicon incurs in order to do the following: prepare and negotiate this Agreement and all present and future documents relating to this Agreement; obtain legal advice in connection with this Agreement or Borrower; enforce, or seek to enforce, any of its rights; prosecute actions against, or defend actions by, Account Debtors; commence, intervene in, or defend any action or proceeding; initiate any complaint to be relieved of the automatic stay in bankruptcy; file or prosecute any probate claim, bankruptcy claim, third-party claim, or other claim; examine, audit, copy, and inspect any of the Collateral or any of Borrower's books and records; protect, obtain possession of, lease, dispose of, or otherwise enforce Silicon's security

interest in, the Collateral; and otherwise represent Silicon in any litigation relating to Borrower. In satisfying Borrower's obligation hereunder to reimburse Silicon for attorneys fees, Borrower may, for convenience, issue checks directly to Silicon's attorneys, Levy, Small & Lallas, but Borrower acknowledges and agrees that Levy, Small & Lallas is representing only Silicon and not Borrower in connection with this Agreement. If either Silicon or Borrower files any lawsuit against the other predicated on a breach of this Agreement, the prevailing party in such action shall be entitled to recover its reasonable costs and attorneys' fees, including (but not limited to) reasonable attorneys' fees and costs incurred in the enforcement of, execution upon or defense of any order, decree, award or judgment. All attorneys' fees and costs to which Silicon may be entitled pursuant to this Paragraph shall immediately become part of Borrower's Obligations, shall be due on demand, and shall bear interest at a rate equal to the highest interest rate applicable to any of the Obligations.

9.13 BENEFIT OF AGREEMENT. The provisions of this Agreement shall be binding upon and inure to the benefit of the respective successors, assigns, heirs, beneficiaries and representatives of Borrower and Silicon; provided, however, that Borrower may not assign or transfer any of its rights under this Agreement without the prior written consent of Silicon, and any prohibited assignment shall be void. No consent by Silicon to any assignment shall release Borrower from its liability for the Obligations.

9.14 JOINT AND SEVERAL LIABILITY. If Borrower consists of more than one Person, their liability shall be joint and several, and the compromise of any claim with, or the release of, any Borrower shall not constitute a compromise with, or a release of, any other Borrower.

9.15 LIMITATION OF ACTIONS. Any claim or cause of action by Borrower against Silicon, its directors, officers, employees, agents, accountants or attorneys, based upon, arising from, or relating to this Loan Agreement, or any other Loan Document, or any other transaction contemplated hereby or thereby or relating hereto or thereto, or any other matter, cause or thing whatsoever, occurred, done, omitted or suffered to be done by Silicon, its directors, officers, employees, agents, accountants or attorneys, shall be barred unless asserted by Borrower by the commencement of an action or proceeding in a court of competent jurisdiction by the filing of a complaint within one year after the first act, occurrence or omission upon which such claim or cause of action, or any part thereof, is based, and the service of a summons and complaint on an officer of Silicon, or on any other person authorized to accept service on behalf of Silicon, within thirty (30) days thereafter. Borrower agrees that such one-year period is a reasonable and sufficient time for Borrower to investigate and act upon any such claim or cause of action. The one-year period provided herein shall not be waived, tolled, or extended except by the written consent of Silicon in its sole discretion. This provision shall survive any termination of this Loan Agreement or any other Loan Document.

9.16 PARAGRAPH HEADINGS; CONSTRUCTION. Paragraph headings are only used in this Agreement for convenience. Borrower and Silicon acknowledge that the headings may not describe completely the subject matter of the applicable paragraph, and the headings shall not be used in any manner to construe, limit, define or interpret any term or provision of this Agreement. This Agreement has been fully reviewed and negotiated between the parties and no uncertainty or ambiguity in any term or provision of this Agreement shall be construed strictly against Silicon or Borrower under any rule of construction or otherwise.

9.17 GOVERNING LAW; JURISDICTION; VENUE. This Agreement and all acts and transactions hereunder and all rights and obligations of Silicon and Borrower shall be governed by the laws of the State of California. As a material part of the consideration to Silicon to enter into this Agreement, Borrower (i) agrees that all actions and proceedings relating directly or indirectly to this Agreement shall, at Silicon's option, be litigated in courts located within California, and that the exclusive venue therefor shall be Santa Clara County; (ii) consents to the jurisdiction and venue of any such court and consents to service of process in any such action or proceeding by personal delivery or any other method permitted by law; and (iii) waives any and all rights Borrower may have to object to the jurisdiction of any such court, or to transfer or change the venue of any such action or proceeding.

9.18 MUTUAL WAIVER OF JURY TRIAL. BORROWER AND SILICON EACH HEREBY WAIVE THE RIGHT TO TRIAL BY JURY IN ANY ACTION OR PROCEEDING BASED UPON, ARISING OUT OF, OR IN ANY WAY RELATING TO, THIS AGREEMENT OR ANY OTHER PRESENT OR FUTURE INSTRUMENT OR AGREEMENT BETWEEN SILICON AND BORROWER, OR ANY CONDUCT, ACTS OR OMISSIONS OF SILICON OR BORROWER OR ANY OF THEIR DIRECTORS, OFFICERS, EMPLOYEES, AGENTS,

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ATTORNEYS OR ANY OTHER PERSONS AFFILIATED WITH SILICON OR BORROWER, IN ALL OF THE FOREGOING CASES, WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE.

BORROWER:

SILICON:

HARMONIC, INC.

SILICON VALLEY BANK

BY /s/ Robin N. Dickson

President or Vice President

BY /s/ Brad Leahy

Title Vice President

BY /s/ Robin N. Dickson

Secretary or Ass't Secretary

Form: -3 (3/7/02)
Version -5

SILICON VALLEY BANK

SCHEDULE TO

LOAN AND SECURITY AGREEMENT

BORROWER: HARMONIC, INC.
ADDRESS: 549 BALTIC WAY
SUNNYVALE, CA 94089

DATE: MARCH 28, 2003

This Schedule forms an integral part of the Loan and Security Agreement between Silicon Valley Bank and the above-borrower of even date.

1. CREDIT LIMIT

(Section 1.1):

(a) Revolving Loans. Loans (the "Revolving Loans") in an amount not to exceed the lesser of:

(i) \$10,000,000 (the "Maximum Revolving Line") at any one time outstanding; or

(ii) 70% (the "Advance Rate") of the amount of Borrower's Eligible Accounts (as defined in Section 8 above).

Silicon may, from time to time, modify the Advance Rate, in its good faith business judgment, upon notice to the Borrower, based on changes in collection experience with respect to Accounts or other issues or factors relating to the Accounts or other Collateral.

(b) Equipment Loans. Loans (the "Equipment Loans") in a total amount not to exceed the lesser of:

(i) a total of \$3,500,000 or

(ii) 100% (the "Equipment Advance Rate") of the net purchase price of new Equipment purchased by

Borrower, located in the United States, acceptable to Silicon in its good faith business judgment, and in which Silicon has a first-priority perfected security interest; provided that

(A) the first Equipment Loan may be based, in whole or in part, on used Equipment, if it was purchased within six months prior to the date of the first Equipment Loan; and

(B) the Equipment Advance Rate with respect to used Equipment shall be 75%.

(c) Equipment Loans--Terms. Equipment Loans shall be subject to the following terms:

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SCHEDULE TO LOAN AND SECURITY AGREEMENT

- (1) Equipment loans previously made under the Prior Agreement, which are presently outstanding, shall, for all purposes hereof be "Equipment Loans" hereunder and be governed by all the terms and conditions of this Agreement, except that the principal of said Equipment Loans shall continue to be payable in accordance with the payment schedule in effect under the Prior Agreement. Without limiting the generality of the foregoing, Equipment Loans previously made under the Prior Agreement, which are presently outstanding, shall (i) be taken into account in determining the maximum amount of Equipment Loans under Section 1(b)(i) above, and (ii) bear interest at the rate set forth in this Schedule, effective on the date hereof.
- (2) The "net purchase price" of Equipment means the purchase price thereof, as shown on the applicable invoice, net of all charges for taxes, freight, delivery, insurance, set-up, training, manuals, fees, service charges and other similar items; provided that a maximum of 30% of each Equipment Loan may be used for the purchase of transferable software licenses, leasehold improvements and other soft costs, including sales tax, freight and installation expenses.
- (3) Equipment Loans shall be made in disbursements of not less than \$50,000 each.
- (4) The initial disbursement of Equipment Loans may be based on Equipment purchased by Borrower on

or after September 28, 2002. Other disbursements of Equipment Loans shall be based on Equipment purchased by Borrower within 90 days prior to the date of disbursement of the Equipment Loan.

- (5) Following December 31, 2003, no further Equipment Loans shall be made.
- (6) Each Equipment Loan shall be repaid by the Borrower to Silicon in 30 equal monthly payments of principal, commencing on the first day of the first month following the date the Equipment Loan is disbursed and continuing until the earlier of the following dates (the "Equipment Loan Maturity Date"):
 - (i) the date the Equipment Loans have been paid in full or
 - (ii) the date this Agreement terminates by its terms or is terminated, as provided in this Agreement.On the Equipment Loan Maturity Date, the entire unpaid principal balance of the Equipment Loans, plus all accrued and unpaid interest thereon, shall be due and payable. Equipment Loans may not be repaid and reborrowed.
- (7) Without limiting any of the other provisions of this Agreement relating to Reserves, in the event the

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

Borrower fails to have Available Cash (as defined below in Section 2(d)) of at least \$20,000,000 as of the end of any month, then, at all times thereafter during the term of this Agreement, there shall be reserved, from Revolving Loans otherwise available to Borrower, an amount equal to the unpaid principal balance of the Equipment Loans from time to time outstanding, and if, for any reason, there are not sufficient Revolving Loans otherwise available to Borrower for such reserve, Borrower shall repay the outstanding Revolving Loans in an amount sufficient so that there can be reserved from Revolving Loans otherwise available to Borrower an amount equal to the unpaid principal balance of the Equipment Loans. If for any reason, even after paying in full all outstanding Revolving Loans, there are not sufficient Revolving Loans otherwise available to Borrower to reserve therefrom an amount equal to the unpaid principal balance of the Equipment Loans, then Borrower shall provide cash collateral to Silicon in an amount equal to the

unpaid principal balance of the
Equipment Loans from time to time
outstanding.

Acom Reserve: As provided in Section 8(5) below.

Letter of Credit
Sublimit
(Section 1.6):

\$2,500,000, provided that the total Letter of Credit
Sublimit and Foreign Exchange Contract Sublimit shall
not, at any time, exceed \$2,500,000.

Foreign Exchange
Contract Sublimit:

\$2,500,000, provided that the total Letter of Credit
Sublimit and the Foreign Exchange Contract Sublimit
shall not, at any time, exceed \$2,500,000.

Borrower may enter into foreign exchange forward
contracts with Silicon, on its standard forms, under
which Borrower commits to purchase from or sell to
Silicon a set amount of foreign currency more than
one business day after the contract date (the "FX
Forward Contracts"); provided that (1) at the time
the FX Forward Contract is entered into Borrower has
Loans available to it under this Agreement in an
amount at least equal to 10% of the amount of the FX
Forward Contract; (2) the total FX Forward Contracts
at any one time outstanding may not exceed 10 times
the amount of the Foreign Exchange Contract Sublimit
set forth above. Silicon shall have the right to
withhold, from the Loans otherwise available to
Borrower under this Agreement, a reserve (which shall
be in addition to all other reserves) in an amount
equal to 10% of the total FX Forward Contracts from
time to time outstanding, and in the event at any
time there are insufficient Loans available to
Borrower for such reserve, Borrower

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

shall deposit and maintain with Silicon cash
collateral in an amount at all times equal to such
deficiency, which shall be held as Collateral for all
purposes of this Agreement. Silicon may, in its
discretion, terminate the FX Forward Contracts at any
time that an Event of Default occurs and is
continuing. Borrower shall execute all standard form
applications and agreements of Silicon in connection
with the FX Forward Contracts, and without limiting
any of the terms of such applications and agreements,
Borrower shall pay all standard fees and charges of
Silicon in connection with the FX Forward Contracts.

Cash Management

Services and Reserves: Borrower may use up to \$1,500,000 of Revolving Loans
available hereunder for Silicon's Cash Management
Services (as defined below), including, merchant
services, business credit card, ACH and other
services identified in the cash management services
agreement related to such service (the "Cash
Management Services"). Silicon may, in its sole
discretion, reserve against Revolving Loans which
would otherwise be available hereunder such sums as
Silicon shall determine in its good faith business
judgment in connection with the Cash Management
Services, and Silicon may charge to Borrower's Loan
account, any amounts that may become due or owing to
Silicon in connection with the Cash Management
Services. Borrower agrees to execute and deliver to
Silicon all standard form applications and agreements
of Silicon in connection with the Cash Management
Services, and, without limiting any of the terms of

such applications and agreements, Borrower will pay all standard fees and charges of Silicon in connection with the Cash Management Services. The Cash Management Services shall terminate on the Maturity Date.

2. INTEREST.

INTEREST RATE (Section 1.2):

(a) Revolving Loans. The Revolving Loans shall bear interest at a rate equal to the "Prime Rate" in effect from time to time, plus 0.75% per annum, provided that:

- (i) If, as of the end of a month, Borrower has Available Cash (as defined below) of not less than \$30,000,000, or for the three months ended as of the end of a month, Borrower has net profits of \$1 or more, then, the interest rate in effect during the following month shall be a rate equal to the Prime Rate in effect from time to time, plus 0.25% per annum; and
- (ii) if, as of the end of a month, Borrower has Available Cash (as defined below) of less than \$20,000,000, then the interest rate in effect during the following month

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

shall be a rate equal to the Prime Rate in effect from time to time, plus 1.75% per annum.

(b) Equipment Loans. The Equipment Loans shall bear interest at a rate equal to the Prime Rate in effect from time to time, plus 2% per annum, provided that: if as of the end of a month, Borrower has Available Cash of not less than \$30,000,000, or for the three months ended as of the end of a month, Borrower has net profits of \$1 or more, then, the interest rate in effect during the following month shall be a rate equal to the Prime Rate in effect from time to time, plus 1.75% per annum.

(c) Calculation; "Prime Rate". All interest shall be calculated on the basis of a 360-day year for the actual number of days elapsed. "Prime Rate" means the rate announced from time to time by Silicon as its "prime rate", provided that in no event shall the Prime Rate in effect on any day be less than 4.25% per annum. Borrower acknowledges that the Prime Rate is a base rate upon which other rates charged by Silicon are based, and it is not necessarily the best rate available at Silicon. The interest rate applicable to the Obligations shall change on each date there is a change in the Prime Rate.

(d) "Available Cash" as used herein means as of the date of calculation, an amount equal to Borrower's unrestricted cash and cash equivalents minus the total outstanding Revolving Loans as of such date and minus the amount of the Divicom Tax Liability as of such date.

(e) "Divicom Tax Liability" as used herein means the

tax liabilities assumed by Borrower in connection with its acquisition of DiviCom, a division of C-Cube Microsystems and any sums which the Borrower is required to refund to LSI Logic relating to the same. The amount of the Dividcom Tax Liability at the date hereof is \$20,800,000.

3. FEES (Section 1.4):

Loan Fee: \$100,000, payable \$75,000 concurrently herewith and \$25,000 on the date of the first disbursement of a Revolving Loan.

Collateral Monitoring Fee: \$1,250, per month, payable in arrears (prorated for any partial month at the beginning and at termination of this Agreement), provided that if the Streamline Provisions (as defined below) are in effect throughout a month no Collateral Monitoring Fee shall be charged for such month.

Unused Line Fee: No Unused Line Fee shall be charged, provided that if, as of the end of any month, Borrower does not have Available Cash of at least \$20,000,000, then, at all times thereafter during the term of this Agreement, Borrower shall pay Silicon an Unused Line Fee in an

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SILICON VALLEY BANK SCHEDULE TO LOAN AND SECURITY AGREEMENT

amount equal to 0.25% per annum on the difference between the amount of the Maximum Revolving Line and the average daily principal balance of the Revolving Loans outstanding during such period, computed on the basis of a 360-day year, which Unused Line Fee shall be computed and paid quarterly, in arrears, on the first day of the following calendar quarter.

4. REVOLVING LOAN MATURITY DATE (Section 6.1):

364 days from the date hereof.

5. FINANCIAL COVENANTS (Section 5.1):

(a) Borrower shall comply with each of the following covenants. Compliance shall be determined as of the end of each month:

MAXIMUM NET LOSS: Borrower shall not incur a net loss (determined in accordance with GAAP) for any three month period ending as of the end of any fiscal month, in excess of the following amounts:

Three months ending as of the end of each of the following fiscal months:	Maximum Net Loss for such three-month period
Fiscal month ending March 28, 2003	\$16,000,000
Fiscal months ending April 25, 2003, May 23, 2003 and June 27, 2003	\$13,000,000
Fiscal months ending July 25, 2003 and thereafter	\$ 8,000,000

(b) LIQUIDITY: solely at such times that Borrower has less than \$10,000,000 of unrestricted cash on deposit

at Silicon, Borrower shall maintain a Liquidity Ratio of at least 4.00. As used herein, the term "Liquidity Ratio" means the quotient obtained by dividing (1) the sum of (y) Borrower's unrestricted cash on deposit at Silicon, plus (z) the amount of Borrower's excess availability in respect of Revolving Loans pursuant to Section 1.1 of the Agreement and Section 1(a) of this Schedule, by (2) the aggregate outstanding amount of Obligations owing to SVB (including without limitation amounts Reserved in respect of Cash Management Services, Letters of Credit, F/X Forward

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

Contracts, and the Acom Balance). Anything in this Agreement (including without limitation Section 8(1) of the Schedule) to the contrary notwithstanding, Borrower's failure to maintain at least \$10,000,000 of unrestricted cash on deposit at Silicon shall not, in and of itself, constitute an Event of Default unless Borrower also is not in compliance with this Section 5(b) of the Schedule.

6. REPORTING.

(Section 5.3):

Borrower shall provide Silicon with the following:

1. Weekly transaction reports and schedules of collections, on Silicon's standard form.
2. Within 10 days after the end of each month account statements showing Borrower's cash as of the end of such month.
3. Monthly accounts receivable agings, aged by invoice date, within fifteen days after the end of each month.
4. Monthly accounts payable agings, aged by invoice date, and outstanding or held check registers, if any, within fifteen days after the end of each month.
5. Monthly reconciliations of accounts receivable agings (aged by invoice date), transaction reports, deferred revenue schedules, and general ledger, within fifteen days after the end of each month.
6. Monthly borrowing base certificate, within fifteen days after the end of each month.
7. Monthly statement as to the amount of the Divicom Tax Liability, within fifteen days after the end of each month.
8. Monthly unaudited financial statements, as soon as available, and in any event within thirty days after the end of each month.
9. Monthly Compliance Certificates, within thirty days after the end of each month, in such form as Silicon shall reasonably specify, signed by the Chief Financial Officer or Corporate Controller of Borrower, certifying that as of the end of such month Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth calculations showing compliance with the financial covenants set

forth in this Agreement and such other information as Silicon shall reasonably request, including, without limitation, a statement that at the end of such month there were no held checks.

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

10. Quarterly unaudited financial statements, as soon as available, and in any event within forty-five days after the end of each fiscal quarter of Borrower.
11. Annual operating budgets (including income statements, balance sheets and cash flow statements, by quarter) for the upcoming fiscal year of Borrower within thirty days prior to the end of each fiscal year of Borrower.
12. Annual financial statements, as soon as available, and in any event within 90 days following the end of Borrower's fiscal year, certified by, and with an unqualified opinion of, independent certified public accountants acceptable to Silicon.

7. BORROWER INFORMATION:

Borrower represents and warrants that the information set forth in the Representations and Warranties of the Borrower dated March 14, 2003, previously submitted to Silicon (the "Representations") is true and correct as of the date hereof.

8. ADDITIONAL PROVISIONS

- (1) BANKING RELATIONSHIP. Borrower shall at all times maintain its primary banking and cash management relationships with Silicon or SVB Securities. Without limiting the generality of the foregoing (but subject to Section 5(b) of this Schedule), Borrower shall, at all times, maintain the greater of \$10,000,000 or 50% of Borrower's total cash and cash equivalents with Silicon and SVB Securities. As to any Deposit Accounts and investment accounts maintained with another institution, Borrower shall cause such institution, within 30 days after the date of this Agreement, to enter into a control agreement in form acceptable to Silicon in its good faith business judgment in order to perfect Silicon's first-priority security interest in said Deposit Accounts and investment accounts.
- (2) SUBORDINATION OF INSIDE DEBT. All present and future indebtedness of Borrower to its officers, directors and shareholders ("Inside Debt") shall, at all times, be subordinated to the Obligations pursuant to a subordination agreement on Silicon's standard form. Borrower represents and warrants that there is no Inside Debt presently outstanding. Prior to incurring any Inside Debt in the future, Borrower shall cause the person to whom such Inside Debt will be owed to execute and deliver to Silicon a subordination agreement on Silicon's standard form.

(3) STREAMLINE PROVISIONS.

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

(a) The Streamline Provisions below shall be applicable if and so long as Borrower meets the following requirements (the "Streamline Requirements"): As of the end of the most recent month Borrower had Available Cash of not less than \$20,000,000.

(b) The Streamline Provisions are as follows:

- (i) Borrower will not be required to provide Silicon with weekly transaction reports and schedules of collections as provided in Section 6(1) of this Schedule (but Borrower shall provide a transaction report to Silicon with each request for a Revolving Loan); and
- (ii) Borrower will not be required to deliver to Silicon the proceeds of Accounts, as received by Borrower, as called for by Section 4.4 of this Loan Agreement to be applied to the Obligations; and

(c) If at any time the Streamline Requirements are not met, the Streamline Provisions shall immediately cease to be applicable, and thereafter Borrower will provide Silicon with weekly transaction reports and schedules of collections as provided in Section 6(1) of this Schedule, and Borrower will deliver to Silicon the proceeds of Accounts, as received by Borrower, as called for by Section 4.4 of this Loan Agreement.

(d) Notwithstanding the foregoing, and without limiting its other rights and remedies, if any Default or Event of Default has occurred and is continuing, Silicon may terminate the Streamline Provisions.

- (4) AUDITS. Audits under Section 5.4 of this Loan Agreement shall be limited to one in each six month period so long as Borrower has Available Cash of not less than \$20,000,000. If as of the end of any month Borrower's Available Cash is less than \$20,000,000, then such audits may be performed up to three times in the next twelve months. Notwithstanding the foregoing, nothing herein shall limit Silicon's right to conduct such audits, if any Default or Event of Default has occurred and is continuing, or if Silicon in its good faith business judgment believes that a Default or Event of Default may have occurred or that there has been deterioration in Borrower's financial performance or in the Collateral.

(5) ACOM TRANSACTION.

- (a) ACOM AMENDMENT. Pursuant to that certain Amendment dated 2000 to Second Amended and Restated Loan and Security Agreement dated as of March 5, 1999 (as amended, the "Acom Amendment") between Borrower and Silicon, Silicon purchased the rights to payment (the "Payment Rights") of El Camino Resources de America Latina, Inc. ("Lessor"), relating to a lease of certain equipment (as amended, the "Lease")

by the Lessor to Acom Comunicacoes Ltda. ("Acom"), under a Receivables Purchase Agreement between Silicon and the Lessor dated as of April 28, 2000 (the "Acom Purchase Agreement"), and Borrower agreed to purchase from Silicon all of the Payment Rights in certain circumstances.

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

Pursuant to an Agreement among Acom, Lessor, Borrower and Silicon, agreed to by Silicon on May 7, 2002, payments on the Lease were changed from quarterly payments to monthly payments as set forth in the payment schedule in said Agreement (the "Monthly Payments"), and the Monthly Payments are currently \$103,796 per month, and continue hereafter at \$103,796 per month.

- (b) ACOM AMENDMENT CONTINUES. Borrower and Silicon agree that the terms of the Acom Amendment and the documents relating thereto continue in full force and effect, and all indebtedness, liabilities and obligations of the Borrower under or in connection therewith are included in the "Obligations" as defined in this Agreement, for all purposes of this Agreement. Borrower is currently making the Monthly Payments under the Lease to Silicon, and Borrower agrees to continue to make the Monthly Payments to Silicon during the term of this Agreement. On the Maturity Date (unless sooner paid under subsection (d) below), Borrower shall pay Silicon the full unpaid principal balance of the Monthly Payments, plus any accrued and unpaid interest, plus all other sums due in connection therewith (collectively, the "Acom Balance").
- (c) ACOM RESERVE. Without limiting any of the other provisions of this Agreement relating to Reserves, during the term of this Agreement, there shall be reserved, from Revolving Loans otherwise available to Borrower, an amount equal to the unpaid Acom Balance from time to time outstanding, and if, for any reason, there are not sufficient Revolving Loans otherwise available to Borrower for such Reserve, Borrower shall repay the outstanding Revolving Loans in an amount sufficient so that the Acom Balance can be reserved from Revolving Loans otherwise available to Borrower. If for any reason, even after paying in full all outstanding Revolving Loans, there are not sufficient Revolving Loans

otherwise available to Borrower to reserve the Acom Balance, then Borrower shall provide cash collateral to Silicon in an amount equal to the Acom Balance, which shall be "Collateral" for all purposes of this Agreement.

(d) ACOM ASSIGNMENT. Borrower has advised Silicon that it wishes to acquire all right, title and interest of Silicon under the Acom Purchase Agreement, including without limitation the Payment Rights, so that it can transfer the same to a third party. To facilitate that transaction, at the request of the Borrower, Silicon is concurrently executing and delivering to Borrower an Assignment with respect to all of Silicon's rights under the Lease, in accordance with the Acom Amendment (the "Silicon Assignment").

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SILICON VALLEY BANK

SCHEDULE TO LOAN AND SECURITY AGREEMENT

Borrower agrees to hold the Silicon Assignment in trust and only to use the same if, substantially concurrently therewith, Borrower pays to Silicon the entire unpaid Acom Balance. If Borrower has not used the Silicon Assignment and paid Silicon such sums within 90 days after the date hereof, Borrower shall return the Silicon Assignment to Silicon. If Borrower does pay the Acom Balance to Silicon, the Silicon Assignment shall be effective.

Borrower:

HARMONIC, INC.

By /s/ Robin N. Dickson

President or Vice President

By /s/ Robin N. Dickson

Secretary or Ass't Secretary

Silicon:

SILICON VALLEY BANK

By /s/ Brad Leahy

Title Vice President

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Schedule 2

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Anthony J. Ley, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Harmonic Inc. on Form 10-Q for the fiscal quarter ended March 28, 2003 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Harmonic Inc.

By: /s/ Anthony J. Ley

Name: Anthony J. Ley

Title: Chairman, President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Robin N. Dickson, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Harmonic Inc. on Form 10-Q for the fiscal quarter ended March 28, 2003 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Harmonic Inc.

By: /s/ Robin N. Dickson

Name: Robin N. Dickson
Title: Chief Financial Officer