



RAMTRON INTERNATIONAL CORPORATION



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2002 Annual Report

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next generation  
nonvolatile memory

RAMTRON



Stock Exchange: Nasdaq National Market  
Common Stock Symbol: RMTR

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For more information about Ramtron International Corporation or its technologies or products, contact Ramtron Corporate Communications at the headquarters address above.

The following selected financial data should be read in conjunction with, and are qualified in their entirety by, the consolidated financial statements and related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

**RAMTRON INTERNATIONAL CORPORATION  
SELECTED FINANCIAL DATA**

for the years ended December 31, 2002, 2001, 2000, 1999 and 1998  
(in thousands, except per share data)

	2002	2001	2000	1999	1998
Net revenues	\$50,545	\$22,856	\$26,079	\$24,871	\$18,554
Gross margin, product sales	12,275	3,747 <sup>(1)</sup>	6,263	5,170 <sup>(1)</sup>	7,158 <sup>(2)</sup>
Operating loss	(1,031)	(20,970)	(12,925)	(5,825)	(12,985)
Net loss applicable to common shares	(1,923)	(33,151)	(14,497)	(2,035)	(19,141)
Net loss per share - basic and diluted	(0.09)	(1.57)	(0.88)	(0.16)	(2.23)
Working capital	11,502	9,815 <sup>(3)</sup>	6,943	7,285	5,246
Total assets	40,942	35,819	38,362	29,380	33,347
Total long-term debt	5,728	--	6,314	5,766	--
Stockholders' equity	20,154	19,039	21,501	13,323	17,062
Cash dividends per common share <sup>(4)</sup>	--	--	--	--	--

(1) Excludes provision for inventory write-off

(2) Excludes loss on manufacturing contract of \$1.2 million

(3) Excludes deferred licensing and development revenue of \$5.7 million for which the Company has no future cash refund liability.

(4) The Company has not declared any cash dividends on its common stock and does not expect to pay any such dividends in the foreseeable future.



## 2002 Letter to Stockholders

### To Our Stockholders

Despite one of the most challenging business environments our industry has faced in recent memory, Ramtron achieved record revenue and posted significantly improved bottom-line performance in 2002. The company shaved more than \$30 million off of its prior year's loss and more than doubled product revenue, resulting in breakeven or near breakeven quarters during the second half of the year. 2002 saw the introduction of new feature-rich problem solver and low voltage FRAM products, as well as the achievement of a key technology milestone with Texas Instruments, paving the way for future FRAM memory products.

### Financial Highlights

For the year ended in December 2002, the company reported total revenues of \$50.5 million, compared with \$22.9 million for 2001. Full-year net loss was \$1.9 million, or a loss of \$0.09 per share, compared with a net loss of \$33.2 million, or a loss of \$1.57 per share, a year ago. This improvement resulted primarily from an increase in product revenues, from \$17 million to \$40 million, higher margins, from 22% to 30%, as well as good execution of our expense control initiatives throughout the year.

Total FRAM business revenue for 2002 was \$30 million, compared with \$7.4 million in 2001, primarily due to increased shipments to key customers and customer-sponsored R&D revenue resulting from development efforts at Texas Instruments. Specialty DRAM revenue, including results from our Mushkin business unit, was \$20.5 million, compared with \$15.4 million the year earlier.

To improve the company's cash position, we are pleased to report that we have signed an agreement with Wells Fargo Business Credit, Inc. to provide a secured \$3.0 million revolving line of credit. The credit facility provides for interest at a floating rate equal to the prime lending rate plus .50% per annum and a term of 3 years. The company plans to use the credit facility for ongoing working capital requirements.

### FRAM Business Highlights

2002 was a banner year for Ramtron's FRAM memory business. Key customer programs combined with improved operational efficiency and reduced manufacturing costs drove record FRAM revenue. Ramtron shipped nearly 17 million FRAM memory products into target markets, which fueled a 390% increase in FRAM product revenue over 2001. From leading-edge digital electricity meters, advanced automotive safety and entertainment systems to high-end printers and copiers, 2002 was the year FRAM memory made significant inroads into commercial applications. Presently, we have more than 100 design-in programs that we are currently tracking across our entire FRAM product line, and are currently serving more than 300 customers with FRAM products.

## Enhanced Memory Highlights

Our Enhanced Memory Systems DRAM business made progress in 2002 as we began pre-production shipments of our DDR Enhanced SRAM to Hewlett-Packard during the fourth quarter. In addition, we began developing design wins for our NoBL ESRAM, particularly in Asia, as the protracted slump in the US network communications market continues to hinder our progress in North America. Markets in which we are currently winning include communications and networking, digital broadcasting, medical imaging, test equipment, as well as radar and display applications. However, due to continued negative trends in the DRAM market and minimal visibility on an industry turnaround, we expect the business conditions for our ESRAM to be challenging in 2003.

On the heels of significant improvements in our FRAM memory business and the promise of expanding opportunities for our products, we are excited about our business and look forward to the challenge of continuing our upward path. We thank our customers, partners, shareholders, and employees for their ongoing support.

Sincerely,

A handwritten signature in black ink, appearing to read "William W. Staunton III". The signature is fluid and cursive, with a long horizontal stroke at the end.

William W. Staunton III  
Chief Executive Officer  
March 31, 2003

## **MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

### **OVERVIEW**

The following discussion and analysis is intended to provide greater details of the results of operations and financial condition of the Company. The following discussion should be read in conjunction with the information under "Selected Financial Data" and the Company's consolidated financial statements and notes thereto and other financial data included elsewhere herein. Certain statements under this caption constitute "forward-looking statements" under the Reform Act which are subject to certain risks and uncertainties. These may be identified by the use of forward-looking words or phrases such as "believe," "expect," "intend," "anticipate," "should," "planned," "estimated," and "potential," among others. The Company's actual results may differ significantly from the results discussed in such forward-looking statements. Factors that might cause such a difference include but are not limited to: (i) the timely completion of the development and qualification for manufacturing of the Company's new Enhanced-DRAM and FRAM products; (ii) broader customer acceptance of its EDRAM and ESRAM products and FRAM products; (iii) the Company's ability to manufacture its products on a cost-effective and timely basis at its alliance foundry partners; (iv) the Company's ability to perform under existing alliance and joint development agreements and to develop new alliance and foundry relationships; (v) the Company's ability to introduce timely new technologies and products and market acceptance of such technologies and products; (vi) the success of the Company's on-going cost-reduction efforts; (vii) the timing and availability of manufacturing resources provided by the Company's manufacturing and alliance partners for the production of our products; (viii) the alliance partners' willingness to continue development activities as they relate to their license agreements with the Company; (ix) the availability and related cost of future financing; (x) the retention of key personnel; (xi) the outcome of the Company's patent interference litigation proceedings; (xii) factors not directly related to the Company, such as competitive pressures on pricing, marketing conditions in general, competition, technological progression, product obsolescence and the changing needs of potential customers and the semiconductor industry in general; and (xiii) global economic and political conditions related to on-going military actions against terrorism. For additional information concerning these and other factors, see "Expected Future Results of Operations."

Since its inception, the Company has been primarily engaged in the research and development of ferroelectric technology and the design, development and commercialization of FRAM products and Enhanced-DRAM products. Revenue has been derived from the sale of the Company's FRAM and Enhanced-DRAM products beginning in 1992. The Company has also generated revenue under license and development agreements entered into with a limited number of established semiconductor manufacturers and

involving the development of specific applications of the Company's technologies. Accordingly, fluctuations in the Company's revenue have resulted primarily from the timing of significant product orders, the timing of the signing of license and development agreements, and the achievement of related performance milestones.

For 2002, 2001 and 2000, FRAM product sales represented approximately 55%, 26% and 22% of total product sales revenue, respectively, EMS product sales accounted for 4%, 7% and 42%, respectively, while Mushkin product sales represented 41%, 67% and 36% for the same periods. During these periods, product sales revenue accounted for approximately 80%, 75% and 70%, respectively, of total revenue, the remainder of which were generated principally from license and development fees, royalties and customer-sponsored research and development revenue. As a result of the Company's limited revenue as compared to its substantial ongoing product research and development costs and high manufacturing costs for certain of its products, the Company has incurred losses on a consolidated basis in each fiscal year since its inception and has required substantial capital infusions in the form of debt and equity financing.

The Company has entered into development and/or licensing arrangements with several major semiconductor manufacturers, namely Hitachi, Rohm, Toshiba, Fujitsu, Cypress Semiconductor, Hewlett Packard, Infineon and Texas Instruments, to advance the development of both its FRAM products and Enhanced-DRAM products and to provide the Company with access to advanced semiconductor manufacturing processes and capacity for such products. The Company has also entered into license agreements with Samsung and NEC, although such arrangements do not include any development activities between the Company and the licensee or the availability of manufacturing capacity to the Company. In March 1999, the Company entered into a two year joint development agreement with Fujitsu to pursue the development of advanced FRAM manufacturing processes. This agreement provided the Company with research and development funding and wafer fabrication processing equipment supplied by Fujitsu and was successfully completed during the fourth quarter of 2000.

### **RESULTS OF OPERATIONS - 2002 vs 2001**

**REVENUES.** Total revenue for 2002 increased \$27.7 million, or 121% from 2001.

Revenue from product sales increased \$23.1 million, or 134%, from 2001. FRAM product revenue for 2002 increased \$17.7 million to \$22.2 million, from 2001. Increased FRAM product revenue is primarily attributable to increased shipments into the Ampy/ENEL utility meter program as this program moved to full production. During 2002, approximately 75% of FRAM product revenue was attributable to the Ampy/ENEL program.

Product revenue at our Mushkin business unit for 2002 was \$16.3 million, an increase of \$4.8 million, or 42%, as compared to 2001. Increases in Mushkin product revenue is primarily attributable to progress in penetrating larger accounts through the addition of direct sales staff.

EMS product revenue for 2002 increased \$614,000, as compared to 2001. Low product sales volume is the result of the Company's 4-megabit product line reaching end-of-life. The Company is no longer manufacturing its 4-megabit product and sold substantially all of its remaining inventories of these products during 2002.

License and development fees for 2002 were \$6.8 million, as compared to \$2.7 million for 2001. This increase is primarily related to a FRAM licensing and technology development program with Texas Instruments, Inc. that began in July 2001.

The Company recognized royalty revenue of \$398,000 in 2002. In 2001, \$295,000 of royalty revenue was recognized. Such royalty income was primarily attributable to FRAM licensing agreements with existing licensees.

The Company recognizes royalty revenue when our technology licensees sell products which include our technology to their customers. The timing and amounts of future royalties are uncertain and there is no guarantee that our licensees will be successful in selling products that incorporate our technology on which royalties will be payable.

Customer-sponsored research and development revenue for 2002 increased \$365,000 to \$3.0 million as compared to the same period in 2001. This increase resulted primarily from EMS' product development programs with Cypress Semiconductor, Hewlett Packard and Infineon. The amount of customer sponsored research and development revenue recognized during a given period is dependent on the specific programs the Company is working on, the development stage of each program, the costs incurred during the period and the amount of work remaining to complete the program. For 2002, profit related to customer funded research and development revenue totaled \$927,000 as compared to \$206,000 during 2001. This improvement is primarily attributable to a reduction in the estimated costs to complete our product development contract with Hewlett Packard and may not be representative of profit margins on customer funded research and development revenue to be recognized in future periods.

**COST OF SALES.** Overall cost of product sales as a percentage of product revenue during 2002 decreased from 84% to approximately 70% as compared with 2001. Cost of sales associated with the Company's FRAM products decreased from 91% in 2001, to approximately 57% in 2002. FRAM cost of sales declined as the Company improved manufacturing yields, shipped a more economical version of the product used in the Ampy/ENEL metering program and realized cost reductions at the Company's subcon-

tract manufacturers. During 2001 the Company recorded expenses of \$450,000 for excess and obsolete FRAM inventories which are included in cost of product sales. Excluding this charge, FRAM cost of product sales as a percentage of revenue in 2001 was 81%. EMS's cost of product sales for 2002 decreased to 59% from 89% in 2001. EMS 2001 cost of product sales included \$462,000 of inventory write-downs of excess and obsolete inventories. Excluding this charge EMS cost of product sales as a percentage of product revenue in 2001 was 49%. Cost of sales as a percentage of product revenue at our Mushkin subsidiary increased to 88% in 2002 as compared to 80% in 2001. This increase is the result of sustained price decreases in the DRAM industry during the last year.

**RESEARCH AND DEVELOPMENT.** Combined research and development expenses for the year 2002 decreased \$4.6 million to \$12.1 million, a decrease of 28% as compared with the same period in 2001. This decrease is primarily due to decreased contract design support services, photo mask and wafer costs for the development of new Enhanced-DRAM products, and an increased allocation of engineering resources to manufacturing activities.

**SALES, GENERAL AND ADMINISTRATIVE.** Sales, general and administrative expenses for 2002 decreased \$1.3 million to \$11.5 million, a decrease of 10% as compared to the same period in 2001. This decrease is primarily attributable to new accounting standards that eliminated the amortization of goodwill beginning January 1, 2002. During 2002 and 2001, the Company recorded \$0 and \$1.5 million, respectively, of goodwill amortization.

**STOCK-BASED COMPENSATION.** During 2002, the Company recognized \$0 of non-cash expenses for stock-based compensation as compared to \$202,000 in 2001. In September 1999, certain officers of the Company were granted options to purchase common stock of the Company at \$2.25 per share (the closing price on the date of grant), subject to stockholder approval to amend the Company's 1995 Stock Option Plan. These options vested 50% on March 31, 2000 and 50% on March 31, 2001. The Company's shareholders approved the amendment to the 1995 Plan on December 22, 1999. On that date, the intrinsic value of the options of \$2,578,000 was recorded as deferred compensation. During the first quarter of 2001 the Company recognized the remaining compensation expense of \$202,000. All stock based compensation charges are allocable to sales, general and administrative expenses.

**INTEREST EXPENSE, RELATED PARTY.** Related party interest expense in 2002 decreased \$874,000, to \$308,000, primarily due to the November 2002 retirement of the Company's credit facility with the National Electrical Benefit Fund. Related party interest expense in 2002 results from interest charges related to a convertible debenture issued to Infineon in March 2002.

**INTEREST EXPENSE, OTHER.** Other interest expense increased \$524,000 in 2002 primarily due to interest expense related to the convertible debentures issued to Halifax Fund, L.P. and Bramwell Capital Corporation on April 1, 2002.

**MINORITY INTEREST IN SUBSIDIARY.** Minority interest in losses of the Company's EMS subsidiary of approximately \$267,000 were recognized in 2001 as compared to \$0 in 2002. The minority interest reflects Infineon's share of EMS losses for 2001.

**LOSS ON DISPOSITION OF MARKETABLE EQUITY SECURITIES.** During 2001, the Company sold 443,488 shares of Infineon common stock owned by the Company, consisting of all of the shares obtained through the share purchase agreement with Infineon dated December 14, 2000. During 2001, the Company recorded a loss of \$11.4 million on the disposition and impairment of these securities. No such losses occurred in 2002.

**NET LOSS APPLICABLE TO COMMON SHARES.** During 2002, combined preferred stock dividends, and accretion of redeemable preferred stock decreased by \$67,000 to \$96,000. This decrease is attributable to the maturity and redemption of all of the remaining redeemable preferred stock on July 31, 2002.

#### **RESULTS OF OPERATIONS - 2001 vs 2000**

**REVENUES.** Total revenue for 2001 decreased \$3.2 million, or 12%, from 2000.

Revenue from product sales decreased \$1.0 million, or 6%, for 2001, as compared to 2000. FRAM product revenue for 2001 increased \$553,000 to \$4.5 million, an increase of 14%, as compared to 2000. This increase is attributable in part to a wider product portfolio. During 2001, the Company introduced seven new FRAM products. At the end of 2001, the FRAM product portfolio contained seventeen products in multiple package configurations serving both 3-volt and 5-volt product applications and density ranges of 4-kilobit to 256-kilobit.

Product revenue from the Company's EMS subsidiary decreased \$6.4 million for 2001, to \$1.2 million, a decrease of 85% as compared to 2000. The decrease in EMS product sales is primarily attributable to a substantial decline in 4-megabit product sales as this product line approached end-of-life. The Company is no longer manufacturing its 4-megabit product.

During 2001, the Company's Mushkin subsidiary, which was acquired in June 2000, generated \$11.5 million in product revenue. Mushkin's product revenue during the six months of Ramtron ownership in 2000 was \$6.7 million. During 2001, Mushkin experienced a significant increase in unit sales at the same time it was experiencing severe declines in average selling prices consistent with world-wide trends in DRAM memory markets.

The Company recognized \$2.7 million in license and development fee revenue during 2001 as compared to \$2.0 million in 2000. License and development fee revenue in 2001 resulted from license and development partner agreements the Company entered into with Texas Instruments and NEC during 2001. License and development partner revenue in 2000 resulted from the achievement of contractual milestones in existing licensee and development partner agreements.

During 2001, the Company recognized royalty revenue related to FRAM license and development partner agreements of \$295,000 compared with \$188,000 recorded in 2000.

Customer-sponsored research and development revenue for 2001 decreased by \$3.0 million to \$2.6 million, a decrease of 53% as compared to 2000. During 2000, the Company was engaged with Fujitsu for the purpose of developing a 0.35 micron advanced FRAM manufacturing process, which generated revenue of \$4.0 million. The Fujitsu program was successfully completed in the fourth quarter of 2000. In addition, the Company recognized customer-sponsored research and development revenue in 2001 and 2000 from product development agreements with Cypress Semiconductor and Hewlett Packard for the development of next generation Enhanced-DRAM products.

During 2001, quarterly revenue was \$3.5 million, \$3.4 million, \$7.5 million and \$8.5 million for the first, second, third and fourth quarters, respectively. Significant increases in revenue during the third and fourth quarters as compared to the first and second quarters are the result of increased product sales from our FRAM and Mushkin business units and increased license and development fee revenue related to engaging with Texas Instruments on a technology license and development agreement during the third quarter. Our FRAM business unit product revenue increased as a result of a wider product portfolio and the initial shipments into the Ampy metering program. Product sales at our Mushkin business unit increased during the second half of 2001 as a result of adding sales personnel to facilitate direct customer sales, expanding our sales channels beyond internet sales.

**COST OF SALES.** Overall cost of product sales as a percentage of product revenue during 2001 increased from 66% to approximately 84% as compared with 2000. Cost of sales associated with the Company's FRAM products increased to 91% in 2001 compared to 74% in 2000. This increase is primarily attributable to high production costs for initial deliveries of product into the Ampy/ENEL metering program, a major customer program to replace 27 million utility meters in Italy. The pre-production phase of this program was completed in 2001 with the production ramp beginning in the first quarter of 2002. A design revision to reduce costs is complete and production wafers are currently being manufactured. The Company expects to consume the remaining high cost units and begin delivery of the lower cost parts during the first quarter of 2002. During 2001 the Company also recorded expens-

es of \$450,000 for excess and obsolete inventories which are included in cost of product sales. Excluding this charge, FRAM cost of product sales as a percentage of revenue was 81% EMS cost of product sales as a percentage of product revenue increased to 89% from 49% in 2000 as a result of inventory write-downs of excess and obsolete inventories totaling approximately \$462,000. Excluding this charge EMS cost of product sales as a percentage of product revenue was 49%. Mushkin cost of product sales as a percentage of product revenue increased from 77% to 80% when compared to 2000. The increase in Mushkin's cost of product sales as a percentage of product revenue is principally due to decreases in the average selling prices per megabit of memory, due to extreme pricing pressure in world-wide commodity DRAM markets during 2001.

During 2001, the Company experienced increases in the costs of sales as a percentage of product revenue for its FRAM, EMS and Mushkin business units. Quarterly increases in FRAM cost of sales as a percentage of product revenue is primarily attributable to high production costs for initial deliveries of product into the Ampy metering program. During the fourth quarter EMS cost of sales increased substantially as a percentage of product revenue due to a charge for excess and obsolete inventories. Our Mushkin business unit also experienced increased cost of sales as a percentage of product revenue during 2001, primarily because of decreases in the average selling prices per megabit of memory, due to extreme pricing pressure in world-wide commodity DRAM markets during 2001.

**RESEARCH AND DEVELOPMENT.** During 2001 research and development costs (including customer-sponsored research and development) increased \$3.2 million to \$16.6 million as compared to \$13.4 million in 2000. During 2001 and 2000 the Company incurred research and development expenses related to new product development programs in both the Company's FRAM and Enhanced-DRAM business units. Throughout 2000 the Company was engaged in a 0.35 micron advanced FRAM manufacturing process development program with Fujitsu. This development program provided the Company with research and development funding and wafer fabrication processing equipment supplied by Fujitsu and was successfully completed in the fourth quarter of 2000. Funding to Ramtron in 2000 from this agreement totaled \$4.0 million.

**SALES, GENERAL AND ADMINISTRATIVE.** Sales, general and administrative ("SG&A") expenses (including stock-based compensation) for 2001 decreased \$801,000 to \$12.8 million, a decrease of 6% as compared to 2000. This decrease is primarily attributable to a reduction of stock-based compensation (see "Stock-Based Compensation" below) of \$2.0 million. This decrease is offset by incremental general and administrative costs and goodwill amortization related to the Company's Mushkin subsidiary, which was acquired in June 2000. Mushkin selling, general and administrative expenses for 2001 were \$3.5 million, includ-

ing \$1.3 million related to goodwill amortization. During 2000 Mushkin's selling, general and administrative expenses were \$1.4 million, including \$700,000 related to goodwill amortization. Increases in SG&A expenses related to our Mushkin subsidiary are offset by reductions in consulting fees, foreign withholding tax payments on licensing revenue and sales commissions to outside sales representatives as EMS product revenue declined year over year.

**STOCK-BASED COMPENSATION.** During 2001, the Company recognized \$202,000 of non-cash expenses for stock-based compensation as compared to \$2.2 million in 2000. In September 1999, certain officers of the Company were granted options to purchase common stock of the Company at \$2.25 per share (the closing price on the date of grant), subject to stockholder approval to amend the Company's 1995 Stock Option Plan. These options vested 50% on March 31, 2000 and 50% on March 31, 2001. The Company's shareholders approved the amendment to the 1995 Plan on December 22, 1999. On that date, the intrinsic value of the options of \$2,578,000 was recorded as deferred compensation. During the first quarter of 2001 the Company recognized the remaining compensation expense of \$202,000. All stock based compensation charges are allocable to sales, general and administrative expenses.

**INTEREST EXPENSE.** Related party interest expense in 2001 increased \$21,000, totaling \$1.2 million, and was primarily related to non-cash amortization of a note payable discount for the valuation of stock warrants issued in connection with the amendment of the Company's credit facility with the National Electrical Benefit Fund.

**MINORITY INTEREST IN SUBSIDIARY.** Minority interest in losses of the Company's EMS subsidiary of approximately \$267,000 was recognized in 2001 as compared to \$706,000 in 2000. The minority interest reflects Infineon's share of EMS losses for 2001 and 2000. Minority interest in net losses of EMS were not recorded after March 31, 2001, due to the minority interest balance being reduced to zero on that date.

**LOSS ON DISPOSITION OF MARKETABLE EQUITY SECURITIES.** During 2001, the Company sold 443,488 shares of Infineon common stock the Company held, consisting of all of the shares obtained through the share purchase agreement with Infineon dated December 14, 2000. The Company received proceeds of \$8.6 million from these sales. During 2001, the Company recorded a loss of \$11.4 million on the disposition and impairment of these securities. Loss on sales and impairments were \$11.9 million in the third quarter 2001 and a gain on sales of \$563,000 in the fourth quarter 2001.

**CUMULATIVE EFFECT OF ACCOUNTING CHANGE.** In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition" ("SAB

No. 101"), which provides guidance on the recognition, presentation and disclosure of revenue in financial statements. As a result, effective January 1, 2000, the Company changed its method of recognizing revenue on certain payments resulting from technology licensing activities. In prior years the Company recognized non-refundable technology license agreement payments when billed in accordance with contractual arrangements. In accordance with SAB No. 101's guidance, the Company now recognizes revenue related to technology licensing agreements over the licensing and/or royalty bearing period. The effect of this change in revenue recognition was to increase income before the cumulative effect of the accounting change by approximately \$135,000 or \$0.01 per share in 2001 and \$150,000 or \$0.01 per share in 2000. The cumulative effect of retroactively applying this change in accounting principle to periods prior to 2000 resulted in a one-time non-cash charge of \$1.5 million and is included in net loss for the year ended December 31, 2000.

**NET LOSS APPLICABLE TO COMMON SHARES.** During 2001, combined preferred stock dividends, and accretion of redeemable preferred stock increased by \$40,000 to \$163,000. This increase is attributable to a 2% increase in the dividend rate as a result of the Company's election to pay required dividends in the Company's preferred stock instead of cash.

#### **EXPECTED FUTURE RESULTS OF OPERATIONS**

The Company's ability to significantly increase product sales and achieve profitability will depend on several factors, including: (i) the completion of the development and qualification for manufacturing of new FRAM products; (ii) the completion of the development and qualification for manufacturing of the Company's new Enhanced-DRAM products; (iii) participation in the Ampy/ENEL utility meter program throughout the life of such program; (iv) wider customer acceptance of its FRAM and Enhanced-DRAM products; (v) market acceptance and adoption of our customer's products; (vi) market acceptance of new FRAM and Enhanced-DRAM products which may be developed; (vii) the Company's ability to manufacture its products on a cost-effective and timely basis through alliance foundry operations and third-party foundry sources; (viii) the availability and related cost of future financing; (ix) factors not directly related to the Company, including market conditions, competition, technological progression, product obsolescence and the changing needs of potential customers and the semiconductor industry in general; (x) memory market conditions and competitive forces which may negatively impact average selling prices of the Company's products; (xi) negative trends in the global economy, and (xii) political conditions related to on-going military actions against terrorism.

The Company is continuing its efforts to improve and increase commercial production and sales of its FRAM and Enhanced-DRAM products, decrease the cost of producing such products and develop and commercialize new FRAM and Enhanced-DRAM

products. The Company expects revenue will continue to be sporadic in the foreseeable future until the Company's products gain wider market acceptance, milestones under existing customer-sponsored product development programs are achieved, new customer-sponsored research and development programs are entered into, new license arrangements are entered into and milestones under the Company's existing and any new license and development agreements are achieved.

Product revenue growth in 2003 will be highly dependent upon product sales to one or more key customers. In June 2000, the Company entered into a five year volume purchase agreement with Ampy Automaton Digilog, Ltd. for the primary purpose of supplying approximately 27 million units of FRAM product over a 3 to 4 year period for a utility meter replacement program at ENEL SpA, a leading supplier of power in Italy. Ramtron will also supply FRAM product to Ampy for use in other meters it builds. The agreement includes pricing provisions, purchase order placement, reschedule and order cancellation provisions. There are no order quantity or schedule guarantees. During 2002 the Company supplied approximately 8 million units into the production phase of this program and expects this program to represent a significant portion of the Company's 2003 FRAM product revenue. The Company's EMS business unit has been engaged with Cypress Semiconductor and Hewlett Packard to develop ESRAM products. The Company's ESRAM products will be available for sale in 2003 and will be the primary source of product revenue for EMS. Hewlett Packard is expected to use the ESRAM in a new line of server products and is expected to be the primary customer for the ESRAM products during 2003. Any delay in the production ramp of these programs could significantly reduce revenue growth below current expectations for 2003.

To gain access to advanced CMOS manufacturing processes and facilities, Ramtron has entered into manufacturing alliances and licensing agreements for FRAM products with companies having or constructing advanced memory products manufacturing capability, including Rohm, Hitachi, Toshiba, Fujitsu, Infineon and Texas Instruments. Since the purchase or construction of an advanced manufacturing facility capable of mass producing memory devices would require a capital outlay well beyond the Company's current capital resources, the Company believes that the most suitable alternative is this strategic-alliance approach, which the Company believes will enable it to develop, manufacture and sell FRAM products more rapidly and cost effectively than any other available alternative. Ramtron's intention is to utilize current and future alliance relationships as foundry sources for FRAM products in order to provide the Company with low-cost, high-volume, high-quality FRAM products for resale to customers.

Currently, the Company's FRAM products are being manufactured under a foundry supply agreement with Fujitsu. From 1998 through August 2001 certain FRAM products were manufactured at Rohm. The Company has not yet negotiated foundry supply

agreements with Hitachi, Toshiba, Infineon or Texas Instruments, but such companies are contractually bound to enter into such agreements upon fulfillment of certain conditions, primarily, the achievement of commercial manufacturing capabilities. There is no assurance, however, that the Company's alliance foundry partners will achieve commercial manufacturing capability in a time-frame sufficient to meet the Company's capacity requirements, or at all.

Currently, the Company's Enhanced-DRAM products are being manufactured under a foundry agreement with Infineon that extends through January 2010. This agreement allows the Company access to Infineon's most advanced DRAM processing technologies while avoiding the high capital costs associated with operating a DRAM manufacturing facility that would have otherwise been incurred by the Company if it had chosen to manufacture these products with Company-provided resources.

As a result of industry wide oversupply of semiconductor memory products, significant price decreases within the industry have occurred during the past several years. Historically, the semiconductor memory industry has experienced declining average selling prices, and the Company believes these declines will continue to affect the Company. Accordingly, the Company's ability to increase revenue and margins on its products depends on the Company's ability to increase unit sales volumes and to introduce new products with higher margins or further reduce its manufacturing costs to offset the declines in average selling prices. Absent these actions, declining average selling prices would have an adverse effect on the Company's gross profit margins and the overall financial performance of the Company. There can be no assurance that the Company will be able to increase unit sales volumes, introduce new, higher margin products or reduce its manufacturing costs in the future.

In addition, the Company periodically writes-down its inventory for estimated obsolescence or lack of marketability. During 2002, 2001 and 2000, the Company recorded charges of \$258,000, \$912,000 and \$195,000, respectively, for such losses. There can be no assurance that the Company will not record write-downs for obsolescence or lack of marketability in future periods. Such write-downs, if material, could have an adverse effect on the Company's results of operations and financial position.

## **LIQUIDITY AND CAPITAL RESOURCES**

Since its inception, because revenue generated from operations and licensing has been insufficient to fund operations, the Company has depended for funding principally on its ability to raise equity capital through private placements of stock and lines of credit.

In 1995, the Company entered into a loan facility, bearing interest at 12%, with the National Electrical Benefit Fund (the "Fund"), an

investment fund established for the purpose of providing retirement and related benefits to employees in the electrical contracting and related industries. During 1999, the Company and the Fund agreed to amend the terms of the credit facility extending the maturity date to March 15, 2002, decreasing the interest rate to 8% and requiring the Company maintain certain financial ratios, as defined in the loan document. In July 2001, the note was again amended to extend the maturity date to July 12, 2002. The Company's borrowings under the Fund's credit facility totaled approximately \$7.0 million. On August 22, 2001, the Company exercised the prepayment provision of the note by notifying the Fund of the Company's intention to prepay the balance due no later than January 2, 2002. On November 9, 2001, the Fund elected to accept payment in lieu of a conversion to the Company's common stock. All principal and accrued interest due, totaling approximately \$7.1 million, was paid to the Fund on November 15, 2001.

The Company raised funds through the private placement of preferred and common stock in 1993, 1997, 1998 and 1999. Also, the Company and Infineon entered into a share purchase agreement dated December 14, 2000 pursuant to which Infineon agreed to invest approximately \$30 million in the Company, \$10 million in cash and \$20 million in Infineon common stock (443,488 shares), in exchange for 4,430,005 shares of the Company's common stock. The initial closing occurred February 2, 2001, providing the Company with \$10 million in exchange for 1,476,668 shares of common stock. The final closing was completed on March 30, 2001, providing the Company 443,488 Infineon shares. All 443,488 Infineon shares were sold by the Company during 2002, generating approximately \$8.6 million in cash.

On March 2002, the Company issued \$8.0 million of 5 year, 5% fixed rate, convertible debentures to Infineon, Halifax Fund, managed by The Palladin Group, L.P. and Bramwell Capital Corporation, managed by Cavallo Capital. The debentures are convertible into the Company's common stock at a fixed conversion price of \$3.77, which is equal to the five-day volume weighted average price ("VWAP") of the Company's common stock prior to the transaction signing. The Company may force conversion of the debenture after 18 months, provided the VWAP of the Company's common stock is at least 200% of the conversion price for 20 or more of 30 consecutive trading days. The debenture is secured by a Deed of Trust on the Company's headquarters facility in Colorado Springs, Colorado and certain accounts receivable. In addition, 700,435, 5-year common stock warrants were issued to the investors at an exercise price of \$4.28 per share.

The debenture agreement requires the Company to meet certain financial covenants. For 2003, those covenants include: (1) capital expenditures not to exceed 3% of gross revenue from sales; (2) EBITDA Earnings of \$750,000 for each six month period ending June 30, 2003, September 30, 2003 and December 31, 2003; and (3) EBITDA Earnings for any fiscal quarter in 2003 not to exceed negative \$500,000.

Cash and cash equivalents decreased by \$37,000 in 2002 to \$3.2 million. Cash flow used for operations decreased from \$15.0 million in 2001 to \$5.0 million in 2002. Cash generated by operating income, after non-cash charges was \$752,000 in 2002 compared to a use of cash of \$16.5 million in 2001. Additionally, working capital requirements increased approximately \$7.2 million as compared to 2001, primarily due to growth in accounts receivable and inventories to support a 134% growth in product sales during 2002.

Accounts receivable increased \$3.7 million in 2002 from \$5.2 million at the end of 2001 as a result of increased product revenue in the fourth quarter of 2002 as compared to product revenue in 2001 and \$2.6 million in accounts receivable from third quarter 2002 shipments to a subcontract manufacturer on the Ampy/ENEL program who has delayed payment to the Company. During the first quarter of 2003, the Company collected approximately 56% of the outstanding balance due from this customer. Based on the subsequent payments and other information available to management, the Company believes the remaining balance will ultimately be collected and, as such, no reserves have been recorded related to this outstanding balance. The amount the Company will ultimately receive in future payments from this customer could differ materially from the amounts recorded as of December 31, 2002 and could require additional charges for uncollectible accounts receivable.

Inventories increased by 20% in 2002 from \$7.5 million at the end of 2001 to \$9.0 million at the end of 2002. This increase is due to a fourth quarter slow-down in shipments into the Ampy/ENEL program as ENEL depleted some excess inventories. The Company expects to deplete the increased inventory quantities during the first 4 or 5 months of 2003.

Accounts payable and accrued liabilities increased on a year-over-year basis from \$4.9 million at the end of 2001 to \$7.1 million at the end of 2002. This increase is primarily attributable to increased FRAM inventory purchases in the fourth quarter of 2002 as compared to the same period in 2001.

Deferred revenue decreased \$2.8 million from \$10.8 million at the end of 2001 to \$8.0 million at the end of 2002. This decrease is primarily related to earning previously deferred revenue related to the Texas Instruments licensing and technology development agreements the Company entered into during 2001. Additionally, the Company recorded \$1.5 million of deferred revenue related to a FRAM technology license milestone payment from an existing licensee. Deferred revenue related to this milestone will be amortized into revenue over the 9 year remaining life of such technology license.

Cash used in investing activities was \$1.2 million in 2002, compared to \$7.6 million of cash generated by investing activities in 2001. In 2001, the Company generated approximately \$8.6 million

from the sale of 443,488 shares of Infineon common stock. Capital expenditures were \$706,000 in 2002 compared to \$433,000 in 2001. Expenditures for intellectual property remained relatively flat at \$527,000 in 2002 and \$558,000 in 2001.

Cash provided by financing activities was \$6.2 million in 2002. The Company generated net proceeds of approximately \$7.2 million from the sale of convertible debentures to Infineon, Halifax Fund, L.P. and Bramwell Capital Corporation pursuant to a share purchase agreement dated March 14, 2002. The Company used \$1.2 million to redeem the remaining outstanding convertible preferred stock on July 31, 2002, its maturity date. In 2001, net cash provided by financing activities was \$3.4 million, which was raised from the issuance of \$10.0 million common stock to Infineon and offset by the repayment of a \$7.0 million note payable to the National Electrical Benefit Fund.

Equipment and plant expenditures are expected to be minimal during 2003.

The Company has incurred net losses from operations since inception. The Company's ability to achieve profitable operations is subject to significant risks and uncertainties including, but not limited to, success in raising additional financing to fund operations, achieving forecasted revenue growth, maintaining gross profit margins and entering into additional license and research and development arrangements. There is no guarantee that the Company will be successful in addressing such risks.

The Company's current business plan contemplates revenue growth in 2003 due to increasing market penetration of the Company's FRAM products and the introduction of new Enhanced-DRAM products.

In addition, the Company obtained a \$3 million line of credit with Wells Fargo in March 2003 that is secured by certain accounts receivable and the Company's inventories (see Note 18 to the consolidated financial statements). The Company believes these factors, along with cash on hand as of December 31, 2002, will be sufficient to fund its operations at least through December 31, 2003.

In view of the Company's expected future working capital requirements in connection with the design, manufacturing and sale of its FRAM and Enhanced-DRAM products, the Company's projected continuing research and development expenditures, other projected operating expenditures and the results of pending patent litigation, the Company may be required to seek additional equity or debt financing. There is no assurance, however, that the Company will be able to obtain such financing on terms acceptable to the Company, or at all. Any issuance of common or preferred stock to obtain additional funding would result in further dilution of existing stockholders' interests in Ramtron. The inability to obtain additional financing when needed would have a material adverse effect on

our business, financial condition and operating results and could adversely affect the Company's ability to continue business operations.

**CONTRACTUAL COMMITMENTS.** For more information on the Company's contractual obligations on operating leases and contractual commitments, see Notes 5 and 6 of the Notes to Consolidated Financial Statements. At December 31, 2002, the Company's commitments under these obligations were as follows (in thousands):

	Operating Leases	NEBF Consulting Fee*	Convertible Debenture	Total
2003	\$ 987	\$ 80	\$ --	\$ 1,067
2004	745	80	--	825
2005	19	80	--	99
2006	15	80	--	95
2007	--	80	8,000	8,080
Total	\$1,766	\$400	\$8,000	\$10,166

\*These consulting fees are required to be paid to NEBF as long as NEBF owns at least 5% of the outstanding shares of the Company.

The Company's EMS subsidiary has entered into an agreement with its subcontract assembly and test supplier. If the committed volume of 500,000 units under this agreement are not manufactured by the end of 2003, EMS may be liable for \$1.00 per unit for the volume shortfall.

**LEGAL MATTERS.** The Company is currently involved in a patent interference proceeding ("Patent Interference Proceeding" and Note 15 in the 2002 consolidated financial statements). If the Company is ultimately unsuccessful in these proceedings, there would be no retroactive cash payment requirements from the Company to the junior party as a result of such an adverse decision. While the Company cannot accurately estimate the financial effects of such a result, the Company believes that it could, depending on when a final non-appealable judgment is ultimately rendered, materially adversely affect the Company's FRAM product business and operating results and, thus, have a materially adverse effect on the Company's financial condition as a whole.

**CRITICAL ACCOUNTING POLICIES.** The Company's discussion and analysis of its financial condition and results of operations are based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates its estimates, including those related to bad debts, inventories, long-

lived assets, income taxes, and contingencies and litigation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

**REVENUE RECOGNITION.** Revenue from product sales to direct customers is recognized upon shipment as the Company generally does not have any post-shipment obligations or allow for any acceptance provisions. The Company defers recognition of sales to distributors that are given rights of return and price protection by the Company until the distributors have resold the products. The Company records the cash received on these sales prior to the distributor reselling the product as deferred revenue.

Revenue from licensing programs is recognized over the period the Company is required to provide services under the terms of the agreement. Revenue from research and development activities that are funded by customers are recognized as the services are performed, generally, as contractual milestones are met. In situations where the Company licenses its technology and also provides development assistance, the Company records the total proceeds to be received as revenue over the longer licensing period.

Revenue from royalties is recognized upon the shipment of product from the Company's technology license partners to direct customers.

**SIGNIFICANT POLICIES AFFECTED BY JUDGMENTS AND ESTIMATES.** The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its consolidated financial statements.

The Company records license and customer sponsored research and development revenue on arrangements entered into with customers. The revenue recorded by the Company in each reporting period is dependent upon estimates regarding the cost of projects and the achievement of milestones. Changes in estimates regarding these matters could result in revisions to the amount of revenue recognized on these arrangements.

While the Company maintains a stringent credit approval process, significant judgments are made by management in connection with assessing our customers' ability to pay at the time of shipment. Despite this assessment, from time to time, our customers are unable to meet their payment obligations. We continue to monitor our customers' credit worthiness, and use our judgment in establishing the estimated amounts of customer receivables which will ultimately not be collected. A significant change in the liquidity or

financial position of our customers could have a material adverse impact on the collectibility of our accounts receivable and our future operating results.

The Company writes down its inventory for estimated obsolescence or lack of marketability for the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

The Company reviews the carrying values of its long-lived assets whenever events or changes in circumstances indicate that such carrying values may not be recoverable. Under current standards, the assets must be carried at historical cost if the projected cash flows from their use will recover their carrying amounts on an undiscounted basis and without considering interest. However, if projected cash flows are less than their carrying value, the long-lived assets must be reduced to their estimated fair value. Considerable judgment is required to project such cash flows and, if required, estimate the fair value of the impaired long-lived asset. The estimated future cash flows are based upon, among other things, assumptions about expected future operating performance and may differ from actual cash flows. There can be no assurance that future long-lived asset impairments will not occur.

Goodwill represents the excess of the purchase price over the fair value of identifiable net tangible and intangible assets acquired in a business combination. Effective January 1, 2002, the Company adopted Statement of Financial Accounting Standard No. 142, "Goodwill and Other Intangibles" (SFAS No. 142) and ceased amortization of its goodwill. Goodwill is required to be tested for impairment annually, or more frequently if events or changes in circumstances indicate that goodwill may be impaired. In accordance with SFAS No. 142, the Company performed its transitional goodwill impairment testing as of January 1, 2002, and performed its annual goodwill impairment testing as of December 31, 2002, and determined that no impairments existed at those dates. This assessment requires estimates of future revenue, operating results and cash flows, as well as estimates of critical valuation inputs such as discount rates, terminal values and similar data. The Company will continue to perform periodic and annual impairment analyses of goodwill resulting from its acquisitions. As a result of future periodic, at least annual, impairment analyses, impairment charges may be recorded and may have a material adverse impact on the financial position and operating results of the Company. Additionally, the Company may make strategic business decisions in future periods which impact the fair value of goodwill, which could result in significant impairment charges. There can be no assurance that future goodwill impairments will not occur.

The Company records deferred tax assets and liabilities for the estimated future tax effects of temporary differences between the

tax basis of assets and liabilities and amounts recorded in the consolidated financial statements, and for operating loss and tax credit carryforwards. Realization of the recorded deferred tax assets is dependent upon the Company generating sufficient taxable income in the appropriate tax jurisdiction in future years to obtain benefit from the reversal of net deductible temporary differences and from tax credit and operating loss carryforwards. A valuation allowance is provided to the extent that management deems it more likely than not that the net deferred tax assets will not be realized. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are changed.

## **NEW ACCOUNTING STANDARDS**

In June 2002, the FASB issued SFAS No. 146, "Accounting for Exit or Disposal Activities," (SFAS No. 146). SFAS No. 146 addresses the recognition, measurement and reporting of costs that are associated with exit and disposal activities, including restructuring activities that are currently accounted for pursuant to the guidance set forth in EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." SFAS No. 146 will be effective for exit or disposal activities that are initiated after December 31, 2002, with early application encouraged. The Company will adopt SFAS No. 146 on January 1, 2003.

In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" (FIN 45). FIN 45 requires a liability to be recognized at the time a company issues a guarantee for the fair value of the obligations assumed under certain guarantee agreements. Additional disclosures about guarantee agreements are also required in the interim and annual financial statements, including a roll forward of the entity's product warranty liabilities. The provisions for initial recognition and measurement of guarantee agreements are effective on a prospective basis for guarantees that are issued or modified after December 31, 2002. The Company is in the process of assessing the impact of the recognition provisions of FIN 45 on its consolidated financial statements.

In January 2003, the Financial Accounting Standards Board issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities" ("FIN No. 46"). This interpretation clarifies existing accounting principles related to the preparation of consolidated financial statements when the equity investors in an entity do not have the characteristics of a controlling financial interest or when the equity at risk is not sufficient for the entity to finance its activities without additional subordinated financial support from others parties. FIN No. 46 requires a company to evaluate all existing arrangements to identify situations where a company has a "variable interest" (commonly evidenced by a guarantee arrangement or other commitment to provide financial support) in

a "variable interest entity" (commonly a thinly capitalized entity) and further determine when such variable interests require a company to consolidate the variable interest entities' financial statements with its own. The Company is required to perform this assessment by September 30, 2003 and consolidate any variable interest entities for which it will absorb a majority of the entities' expected losses or receive a majority of the expected residual gains. Management has not yet performed this assessment, however it is not aware of any material variable interest entities that it may be required to consolidate.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation, Transition and Disclosure" (SFAS No. 148). SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based compensation. SFAS No. 148 also requires disclosure of the pro forma effect in interim financial statements. The transition and annual disclosure of SFAS No. 148 are effective for the Company's fiscal year ended December 31, 2002. The adoption of SFAS No. 148 did not have a material effect on the Company's financial statements.

#### **QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Market risk represents the risk of loss that may impact the financial positions, results of operations or cash flows of the Company due to adverse changes in financial and commodity market prices and rates. The Company is exposed to market risk in the areas of changes in United States interest rates and changes in foreign currency exchange rates as measured against the United States dollar. These exposures are directly related to its normal operating activities. All of the Company's sales are denominated in U.S. dollars and the Company currently has no derivative financial instruments.

Interest payable on the Company's convertible debentures is fixed at 5% over the term of the debentures. As such, changes in interest rates will not affect future earnings or cash flows.

The Company manages interest rate risk by investing its excess cash in cash equivalents bearing variable interest rates, which are tied to various market indices. The Company does not believe that near-term changes in interest rates will result in a material effect on future earnings, fair values or cash flows of the Company. The net effect of a 10% change in interest rates on outstanding cash and cash equivalents at December 31, 2002 would have less than a \$100,000 effect on the earnings or cash flows.

The Company has a wholly owned subsidiary located in Japan. The operating costs of this subsidiary are denominated in Japanese Yen, thereby creating exposures to exchange rate variations. To date, this subsidiary has had only limited operations

and is expected to continue to have limited operations in the foreseeable future, and, therefore, the Company does not believe any changes in exchange rates will have a material effect on future earnings, fair values or cash flows of the Company. The Company does not believe that reasonably possible near-term variations in exchange rates will result in a material effect on future earnings, fair values or cash flows of the Company, and therefore, the Company has chosen not to enter into foreign currency hedging instruments. There can be no assurance that such an approach will be successful, especially in the event of a significant and sudden change in Japanese currency valuation.

Average selling prices of the Company's products have not increased significantly as a result of inflation during the past several years, primarily due to intense competition within the semiconductor industry. The effect of inflation on the Company's costs of production has been minimized through improvements in production efficiencies. The Company anticipates that these factors will continue to minimize the effects of any foreseeable inflation and other price pressures within the industry and markets in which the Company participates.

**RAMTRON INTERNATIONAL CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**

December 31, 2002 and 2001  
(in thousands, except share data)

	2002	2001
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents.....	\$ 3,222	\$ 3,259
Accounts receivable, less allowances of \$231 and \$294, respectively.....	8,981	5,224
Inventories.....	8,952	7,475
Other current assets .....	232	244
Total current assets.....	21,387	16,202
Property, plant and equipment, net.....	4,600	4,941
Goodwill and intangible assets, net.....	14,150	14,676
Other assets .....	805	--
Total assets .....	\$40,942	\$35,819
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable.....	\$ 5,960	\$ 3,900
Accrued liabilities .....	1,147	1,038
Deferred revenue .....	2,778	7,152
Total current liabilities.....	9,885	12,090
Deferred revenue.....	5,175	3,612
Long-term promissory notes net of unamortized discount of \$2,272 .....	5,728	--
Total liabilities .....	20,788	15,702
Commitments and Contingencies (Notes 6 and 15)		
Redeemable preferred stock, \$.01 par value, 10,000,000 shares authorized: 0 and 1,092 shares issued and outstanding, respectively, entitled to \$1,000 per share plus accrued and unpaid dividends in liquidation .....	--	1,078
Stockholders' equity:		
Common stock, \$.01 par value, 50,000,000 authorized: 22,123,768 and 22,081,443 shares issued and outstanding, respectively.....	221	221
Additional paid-in capital.....	234,517	231,479
Accumulated deficit.....	(214,584)	(212,661)
Total stockholders' equity.....	20,154	19,039
Total liabilities and stockholders' equity .....	\$40,942	\$35,819

See accompanying notes to consolidated financial statements.

**RAMTRON INTERNATIONAL CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

For the years ended December 31, 2002, 2001 and 2000  
(in thousands, except per share amounts)

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Revenue:			
Product sales .....	\$40,309	\$ 17,213	\$ 18,262
License and development fees .....	6,829	2,704	2,000
Royalties .....	398	295	188
Customer-sponsored research and development .....	3,009	2,644	5,629
	<u>50,545</u>	<u>22,856</u>	<u>26,079</u>
Costs and expenses:			
Cost of product sales .....	28,034	14,378	11,999
Research and development .....	9,977	14,216	8,013
Customer-sponsored research and development .....	2,082	2,438	5,397
Sales, general and administrative (exclusive of non-cash compensation expense shown below) .....	11,483	12,592	11,412
Stock-based compensation .....	--	202	2,183
	<u>51,576</u>	<u>43,826</u>	<u>39,004</u>
Operating loss .....	(1,031)	(20,970)	(12,925)
Interest expense, related party .....	(308)	(1,182)	(1,161)
Interest expense, other .....	(560)	(36)	(16)
Other income, net .....	72	315	522
Minority interest in net loss of subsidiary .....	--	267	706
Loss on disposition of marketable equity securities .....	--	(11,382)	--
Net loss before cumulative effect of accounting change .....	(1,827)	(32,988)	(12,874)
Cumulative effect of accounting change .....	--	--	(1,500)
Net loss .....	<u>\$(1,827)</u>	<u>\$(32,988)</u>	<u>\$(14,374)</u>
Net loss per common share:			
Net loss .....	\$(1,827)	\$(32,988)	\$(14,374)
Dividends on redeemable preferred stock .....	(82)	(139)	(99)
Accretion of redeemable preferred stock .....	(14)	(24)	(24)
Net loss applicable to common shares .....	<u>\$(1,923)</u>	<u>\$(33,151)</u>	<u>\$(14,497)</u>
Net loss per share - basic and diluted:			
Net loss per share before cumulative effect of accounting change .....	\$ (0.09)	\$ (1.57)	\$ (0.79)
Cumulative effect of accounting change .....	--	--	(0.09)
Net loss per common share .....	<u>\$ (0.09)</u>	<u>\$ (1.57)</u>	<u>\$ (0.88)</u>
Weighted average shares outstanding:			
- Basic and diluted .....	<u>22,088</u>	<u>21,177</u>	<u>16,542</u>

See accompanying notes to consolidated financial statements.

**RAMTRON INTERNATIONAL CORPORATION**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
For the years ended December 31, 2002, 2001 and 2000  
(in thousands, except par value amounts)

	Common Stock (\$ .01) Par Value		Deferred Compensation	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Comprehensive Income (Loss)	Total Stockholders' Equity
	Shares	Amount						
Balances, December 31, 1999	14,609	\$146	\$(2,423)	\$180,613	\$(165,013)	\$	\$	\$13,323
Redeemable preferred stock accretion	--	--	--	(24)	--	--	--	(24)
Redeemable preferred stock dividend	--	--	--	--	(99)	--	--	(99)
Conversion of redeemable preferred stock	25	--	--	117	--	--	--	117
Exercise of options	80	1	--	186	--	--	--	187
Exercise of warrants	1,135	11	--	5,638	--	--	--	5,649
Conversion of note payable	676	7	--	3,371	--	--	--	3,378
Amortization of stock-based compensation	--	--	2,221	(38)	--	--	--	2,183
Issuance of common stock warrants for services provided	--	--	--	182	--	--	--	182
Stock issued to acquire Mushkin	952	10	--	9,990	--	--	--	10,000
Sale of interest in EMS	--	--	--	1,010	--	--	--	1,010
Other	--	--	--	(7)	(24)	--	--	(31)
Net loss	--	--	--	--	(14,374)	--	--	(14,374)
Balances, December 31, 2000	17,477	175	(202)	201,038	(179,510)	--	--	21,501
Redeemable preferred stock accretion	--	--	--	(24)	--	--	--	(24)
Redeemable preferred stock dividend	--	--	--	--	(139)	--	--	(139)
Exercise of options	174	2	--	386	--	--	--	388
Issuance of stock options for services provided	--	--	--	123	--	--	--	123
Amortization of stock-based compensation	--	--	202	--	--	--	--	202
Sale of stock to Infineon	4,430	44	--	29,956	--	--	--	30,000
Other	--	--	--	--	(24)	--	--	(24)
Unrealized loss on marketable securities	--	--	--	--	--	(11,382)	(11,382)	--
Reclassification adjustment for losses on marketable securities included in net loss	--	--	--	--	--	11,382	11,382	--
Net loss	--	--	--	--	(32,988)	--	(32,988)	(32,988)
Comprehensive loss	--	--	--	--	--	--	\$(32,988)	--
Balances, December 31, 2001	22,081	221	--	231,479	(212,661)	--	--	19,039
Redeemable preferred stock accretion	--	--	--	(14)	--	--	--	(14)
Redeemable preferred stock dividend	--	--	--	--	(82)	--	--	(82)
Exercise of options	43	--	--	93	--	--	--	93
Issuance of stock options for services provided	--	--	--	78	--	--	--	78
Debt discount on issuance of debentures	--	--	--	2,673	--	--	--	2,673
Issuance of common stock warrants for services provided	--	--	--	189	--	--	--	189
Other	--	--	--	19	(14)	--	--	5
Net loss	--	--	--	--	(1,827)	--	--	(1,827)
Balances, December 31, 2002	22,124	\$221	\$	\$234,517	\$(214,584)	\$	\$	\$20,154

See accompanying notes to consolidated financial statements.

**RAMTRON INTERNATIONAL CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

For the years ended December 31, 2002, 2001 and 2000  
(in thousands)

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Cash flows from operating activities:			
Net loss .....	\$ (1,827)	\$(32,988)	\$(14,374)
Adjustments used to reconcile net loss to net cash used in operating activities:			
Cumulative effect of accounting change .....	--	--	1,500
Depreciation and amortization .....	1,837	3,433	3,146
Amortization of debt discount .....	401	686	548
Warrants and stock options issued for services .....	78	123	182
Stock-based compensation .....	--	202	2,183
Provision for inventory write-off .....	258	912	195
Minority interest in subsidiary .....	--	(267)	(706)
Loss on disposition and impairment of marketable equity securities .....	--	11,382	--
Loss on abandonment of patents .....	263	--	--
	<u>          </u>	<u>          </u>	<u>          </u>
Changes in assets and liabilities:			
Accounts receivable .....	(3,757)	(3,514)	465
Inventories .....	(1,735)	(1,197)	(2,836)
Accounts payable and accrued liabilities .....	2,169	(1,533)	1,998
Accrued interest .....	--	--	(230)
Deferred revenue .....	(2,811)	7,875	(777)
Other .....	159	(126)	51
	<u>          </u>	<u>          </u>	<u>          </u>
Net cash used in operating activities .....	(4,965)	(15,012)	(8,655)
Cash flows from investing activities:			
Cash from acquired subsidiary .....	--	--	665
Purchase of property, plant and equipment .....	(706)	(433)	(635)
Expenditures for intellectual property .....	(527)	(558)	(556)
Proceeds from sale of investment .....	--	8,618	--
	<u>          </u>	<u>          </u>	<u>          </u>
Net cash provided by (used in) investing activities .....	(1,233)	7,627	(526)
Cash flows from financing activities:			
Proceeds from debenture issuance .....	8,000	--	--
Convertible debenture issue costs .....	(758)	--	--
Payments on note payable, related party .....	--	(7,000)	--
Issuance of common stock, net of expenses .....	93	10,388	5,836
Redemption of convertible preferred stock .....	(1,174)	--	--
	<u>          </u>	<u>          </u>	<u>          </u>
Net cash provided by financing activities .....	6,161	3,388	5,836
Net decrease in cash and cash equivalents .....	(37)	(3,997)	(3,345)
Cash and cash equivalents, beginning of year .....	3,259	7,256	10,601
Cash and cash equivalents, end of year .....	<u>\$ 3,222</u>	<u>\$ 3,259</u>	<u>\$ 7,256</u>

See accompanying notes to consolidated financial statements.

**RAMTRON INTERNATIONAL CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**December 31, 2002, 2001 and 2000**

**1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:**

**DESCRIPTION OF BUSINESS.** Ramtron International Corporation (the "Company") designs, develops, manufactures and markets high-performance specialty semiconductor memory devices. The Company has two product lines, ferroelectric non-volatile random access memory ("FRAM") products and high-speed DRAM (dynamic random access memory) products, called Enhanced-DRAM products. Enhanced-DRAM products are sold through the Company's Enhanced Memory Systems, Inc. ("EMS") and Mushkin Inc. ("Mushkin") subsidiaries.

The Company's revenue is derived primarily from the sale of its FRAM and Enhanced-DRAM products and from license and development arrangements entered into with a limited number of established semiconductor manufacturers and involving the development of specific applications of the Company's technologies. Product sales have been made to various customers for use in a variety of applications including utility meters, office equipment, consumer electronics, telecommunications, accelerator boards, disk controllers and industrial control devices.

The Company has incurred net losses from operations since its inception. The Company's ability to achieve profitable operations is subject to significant risks and uncertainties including, but not limited to, success in raising additional financing to fund operations, achieving forecasted revenue on supply arrangements, and entering into additional license and research and development arrangements. There is no guarantee that the Company will be successful in addressing such risks.

**USE OF ESTIMATES.** The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates.

**PRINCIPLES OF CONSOLIDATION.** The accompanying financial statements include the consolidation of accounts for the Company's 80% owned subsidiary, Enhanced Memory Systems, Inc. and its wholly owned subsidiaries, Mushkin Inc., acquired in June 2000, and Ramtron Kabushiki Kaisha ("Ramtron K.K."). The Company formed EMS to operate its Enhanced-DRAM business. Mushkin was acquired in June 2000 to expand the Company's Enhanced-DRAM product business. The Company formed Ramtron K.K. to act in a sales and marketing role within Japan for

the Company's products and to function as a liaison between the Company and its Japanese alliance partners. To date, Ramtron K.K. has had limited operations. All material inter-company accounts and transactions have been eliminated in consolidation.

Minority interest in the net book value and operating results of EMS are reflected in the accompanying consolidated balance sheets and statements of operations. Minority interest in net losses of EMS were not recorded subsequent to March 31, 2001, due to the minority interest balance being reduced to zero on that date.

**REVENUE RECOGNITION.** Revenue from product sales to direct customers is recognized upon shipment as the Company generally does not have post-shipment obligations or allow for any acceptance provisions. The Company defers recognition of sales to distributors that are given rights of return and price protection by the Company until the distributors have resold the products. The Company records the cash received on these sales prior to the distributor reselling the product as deferred revenue.

Revenue from licensing programs is recognized over the period the Company is required to provide services under the terms of the agreement. Revenue from research and development activities that are funded by customers are recognized as the services are performed, generally, as contractual milestones are met. In situations where the Company licenses its technology and also provides development assistance, the Company records the total proceeds to be received as revenue over the longer licensing period. The revenue recorded by the Company in each reporting period is dependent upon estimates regarding the cost of projects and the achievement of milestones. Changes in estimates regarding these matters could result in revisions to the amount of revenue recognized on these arrangements.

Revenue from royalties is recognized upon the shipment of product from the Company's technology license partners to direct customers.

**INVENTORIES.** Inventories are stated at the lower of cost or market value. The first-in, first-out method of costing inventories is used. The Company writes down its inventory for estimated obsolescence or lack of marketability for the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions.

**PROPERTY, PLANT AND EQUIPMENT.** Property, plant and equipment are stated at cost and depreciation and amortization are provided using the straight-line method over the estimated useful lives of the respective assets. Maintenance and repairs are expensed as incurred and improvements are capitalized.

The cost of assets sold or retired and the related accumulated depreciation or amortization are removed from the accounts and

the resulting gain or loss is reflected in the consolidated statement of operations in the period in which such sale or disposition occurs.

**GOODWILL.** Goodwill represents the excess of the purchase price over the fair value of identifiable net tangible and intangible assets acquired in a business combination. On January 1, 2002, the Company adopted Statement of Financial Standards No. 142, "Goodwill and Other Intangibles" (SFAS No. 142) and ceased amortization of its goodwill. Goodwill is required to be tested for impairment annually, or more frequently if events or changes in circumstances indicate that goodwill may be impaired. In accordance with SFAS No. 142, the Company performed its transitional goodwill impairment testing as of January 1, 2002, and performed its annual goodwill impairment testing as of December 31, 2002, and determined that no impairments existed at those dates. For more information on goodwill and the adoption of SFAS No. 142, see Note 17.

**INTANGIBLE ASSETS.** Intangible assets are recorded at cost and are amortized over their estimated useful lives using the straight-line method. The amounts capitalized for patents include the cost of acquiring and defending the patent.

**IMPAIRMENT OF LONG-LIVED ASSETS.** On January 1, 2002, the Company adopted SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." SFAS No. 121 did not address the accounting for a segment of a business accounted for as a discontinued operation, which resulted in two accounting models for long-lived assets to be disposed of. SFAS No. 144 establishes a single accounting model for long-lived assets to be disposed of by sale, and requires that those long-lived assets be measured at the lower of carrying amount or fair value less cost to sell, whether reported in continuing operations or in discontinued operations. The Company reviews the carrying values of its long-lived assets whenever events or changes in circumstances indicate that such carrying values may not be recoverable. Under SFAS No. 144, long-lived assets must be carried at historical cost if the projected cash flows from their use will recover their carrying amounts on an undiscounted basis and without considering interest. However, if projected cash flows are less than their carrying value, the long-lived assets must be reduced to their estimated fair value. Considerable judgment is required to project such cash flows and, if required, estimate the fair value of the impaired long-lived asset. No impairments of long-lived assets were recorded in 2002, 2001 or 2000.

**INCOME TAXES.** The Company recognizes deferred income tax assets and liabilities for the expected future income tax consequences, based on enacted tax laws, of temporary differences between the financial reporting and tax bases of assets, liabilities and carryovers. The Company recognizes deferred tax assets for

the expected future effects of all deductible temporary differences, loss carryovers and tax credit carryovers. Deferred tax assets are then reduced, if deemed necessary, by a valuation allowance for the amount of any tax benefits which, more likely than not, based on current circumstances, are not expected to be realized.

**CASH AND CASH EQUIVALENTS.** The Company considers all cash and highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Included in cash and cash equivalents as of December 31, 2002 are \$1.5 million of corporate debt securities. These securities are classified as available-for-sale and carried at their amortized cost, which approximated fair value. There were no debt securities included in cash and cash equivalents at December 31, 2001.

**NET LOSS PER SHARE.** Basic earnings per share is computed by dividing reported earnings applicable to common shares by the weighted average shares outstanding. Diluted earnings per share reflects the potential dilution assuming the issuance of common shares for all dilutive potential common shares outstanding during the period. As a result of the Company's net losses, all potentially dilutive securities including warrants, stock options, convertible debt and convertible preferred stock, would be anti-dilutive and thus, are excluded from diluted earnings per share. Potentially dilutive securities excluded from diluted earnings per share were 9,033,000, 5,771,000 and 8,359,000 shares in 2002, 2001 and 2000, respectively.

**STOCK-BASED COMPENSATION.** At December 31, 2002, the Company had four stock-based compensation plans, which are more fully described in Note 7. The Company accounts for employee stock-based compensation using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25 ("APB No. 25"), "Accounting for Stock Issued to Employees" and related interpretations. All options granted under these plans have an exercise price equal to the market value of the underlying common stock on the date of grant, therefore no stock-based compensation is reflected in net loss. Had compensation cost for these plans been determined consistent with SFAS No. 123, "Accounting for Stock-Based Compensation" as amended by SFAS No. 148, "Accounting for Stock-Based Compensation - Transition and Disclosure, and Amendment of FASB Statement No. 123", the Company's net loss would have been increased to the following adjusted amounts:

	Year Ended Dec. 31, 2002	Year Ended Dec. 31, 2001	Year Ended Dec. 31, 2000
--	-----------------------------	-----------------------------	-----------------------------

(in thousands, except per share amounts)

Net Loss Applicable to Common Shares:

As reported.....	\$(1,923)	\$(33,151)	\$(14,497)
Pro forma.....	(4,181)	(36,235)	(18,533)

Net Loss Per Share:

As reported - basic and diluted .....	\$ (0.09)	\$ (1.57)	\$ (0.88)
Pro forma - basic and diluted .....	(0.19)	(1.71)	(1.12)

For disclosure purposes, the fair value of stock based compensation was computed using the Black-Scholes option pricing model with the following weighted average assumptions used for 2002, 2001 and 2000 grants:

	2002	2001	2000
Risk Free Interest Rate.....	4.00%	4.00%	6.63%
Expected Dividend Yield.....	0%	0%	0%
Expected Lives .....	4.0 years	4.0 years	4.0 years
Expected Volatility.....	111%	113%	109%

The weighted average fair value of shares granted during the years ended December 31, 2002, 2001 and 2000 was \$2.75, \$1.67 and \$5.12, respectively.

**FAIR VALUE OF FINANCIAL INSTRUMENTS.** The Company's financial instruments consist of cash and cash equivalents, short-term trade receivables and payables. The carrying values of cash and cash equivalents, and short-term trade receivables and payables approximate fair value due to their short-term nature.

**COMPREHENSIVE LOSS.** The Company reports all changes in equity that result from transactions and other economic events from non-owner sources as comprehensive loss.

**NEW ACCOUNTING STANDARDS.** In June 2001, the FASB issued Statement of Financial Accounting Standards No. 143, "Accounting for Asset Retirement Obligations" (SFAS No. 143). SFAS No. 143 requires entities to record the fair value of a liability for an asset retirement obligation in the period in which it is incurred. When the liability is initially recorded, the entity capitalizes a cost by increasing the carrying amount of the related long-lived asset. Over time, the liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, an entity either settles the obligation for the recorded amount or incurs a gain or loss upon settlement. SFAS No. 143 is effective for fiscal years beginning after June 15, 2002. The Company will adopt SFAS No. 143 on January 1, 2003. The Company does not believe the adoption of SFAS No. 143 will have a material impact on its financial position or results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Exit or Disposal Activities," (SFAS No. 146). SFAS No. 146 addresses the recognition, measurement and reporting of costs that are associated with exit and disposal activities, including restructuring activities that are currently accounted for pursuant to the guidance set forth in EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." SFAS No. 146 will be effective for exit or disposal activities that are initiated after December 31, 2002, with early application encouraged. The Company will adopt SFAS No. 146 on January 1, 2003.

In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" (FIN 45). FIN 45 requires a liability to be recognized at the time a company issues a guarantee for the fair value of the obligations assumed under certain guarantee agreements. Additional disclosures about guarantee agreements are also required in the interim and annual financial statements, including a roll forward of the entity's product warranty liabilities. The provisions for initial recognition and measurement of guarantee agreements are effective on a prospective basis for guarantees that are issued or modified after December 31, 2002. The Company is in the process of assessing the impact of the recognition provisions of FIN 45 on its consolidated financial statements.

In January 2003, the Financial Accounting Standards Board issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities" ("FIN No. 46"). This interpretation clarifies existing accounting principles related to the preparation of consolidated financial statements when the equity investors in an entity do not have the characteristics of a controlling financial interest or when the equity at risk is not sufficient for the entity to finance its activities without additional subordinated financial support from others parties. FIN No. 46 requires a company to evaluate all existing arrangements to identify situations where a company has a "variable interest" (commonly evidenced by a guarantee arrangement or other commitment to provide financial support) in a "variable interest entity" (commonly a thinly capitalized entity) and further determine when such variable interests require a company to consolidate the variable interest entities' financial statements with its own. The Company is required to perform this assessment by September 30, 2003 and consolidate any variable interest entities

for which it will absorb a majority of the entities' expected losses or receive a majority of the expected residual gains. Management has not yet performed this assessment, however it is not aware of any material variable interest entities that it may be required to consolidate.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation, Transition and Disclosure" (SFAS No. 148). SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based compensation. SFAS No. 148 also requires disclosure of the pro forma effect in interim financial statements. The transition and annual disclosure of SFAS No. 148 are effective for the Company's fiscal year ended December 31, 2002. The adoption of SFAS No. 148 did not have a material effect on the Company's financial statements.

## 2. INVENTORIES:

Inventories consist of:

	December 31,	
	2002	2001
	(in thousands)	
Finished goods.....	\$3,783	\$5,442
Work in process .....	5,401	2,974
Obsolescence reserve .....	(232)	(941)
	<u>\$8,952</u>	<u>\$7,475</u>

## 3. PROPERTY, PLANT AND EQUIPMENT:

Property, plant and equipment consists of:

	Estimated	December 31,	
	Useful Lives	2002	2001
	(In Years)	(in thousands)	
Land .....	--	\$ 668	\$ 668
Buildings and improvements.....	18 and 10	8,942	8,942
Equipment.....	5	14,892	14,191
Office furniture and equipment .....	5	620	622
		<u>25,122</u>	<u>24,423</u>
Less accumulated depreciation and amortization ....		(20,522)	(19,482)
		<u>\$ 4,600</u>	<u>\$ 4,941</u>

Depreciation and amortization expense for property, plant and equipment was \$1,047,000, \$1,087,000 and \$1,145,000 for 2002, 2001 and 2000, respectively. Maintenance and repairs expense was \$616,000, \$710,000 and \$851,000 for 2002, 2001 and 2000, respectively.

#### 4. INTANGIBLE ASSETS:

Intangible assets consist of:

	Estimated Useful Lives (In Years)	December 31,	
		2002	2001
		(in thousands)	
Technology license.....	6	\$ 1,983	\$ 1,983
Patents and trademarks.....	17	7,934	7,788
License rights.....	5	2,150	2,150
Goodwill .....		13,862	13,862
		<u>25,929</u>	<u>25,783</u>
Less accumulated amortization .....		<u>(11,779)</u>	<u>(11,107)</u>
		<u>\$14,150</u>	<u>\$14,676</u>

In January 2000, the Company's then wholly owned subsidiary, EMS, entered into a non-exclusive, worldwide technology licensing agreement with Infineon Technologies AG ("Infineon"). In consideration for the grant of the license, Infineon received 20% of the outstanding common stock of EMS. Additionally, the agreement calls for Infineon to provide EMS with up to \$200 million per year of committed wafer manufacturing capacity using Infineon's advanced DRAM and embedded DRAM process capabilities and access to Infineon's design technology. The agreement, as amended, has a term of ten years. The technology license was valued at approximately \$1,983,000 and is being amortized over six years. The increase in the carrying value of the Company's investment in EMS of \$1,010,000 as a result of the shares issued to Infineon was recorded as an increase to additional paid-in capital. Prior to this transaction, Infineon was not a shareholder, promoter or related party to the Company or EMS. The value of the transaction was determined on the date of the transaction primarily by a discounted cash flow appraisal of the shares issued and secondarily by comparison to the value of similar technology licenses. The Company did not recognize a gain on this transaction because of the uncertainty of the realization of that gain.

Amortization expense for intangible assets was \$790,000, \$2,346,000 and \$2,001,000 for 2002, 2001 and 2000, respectively.

#### 5. LONG-TERM DEBT:

On March 14, 2002, the Company signed an agreement to issue \$8.0 million of 5 year, 5% fixed rate, convertible debentures to Infineon Technologies AG ("Infineon"), Halifax Fund ("Halifax"), managed by The Palladin Group, L.P. and Bramwell Capital Corporation ("Bramwell"), managed by Cavallo Capital. Prior to issuance of the convertible debentures, Infineon owned 4,430,005 shares of Ramtron's outstanding common stock, or 20% of its outstanding shares, and 20% of the outstanding shares of the Company's subsidiary, Enhanced Memory Systems, Inc. ("EMS"). On March 29, 2002, the Company issued a \$3 million debenture to Infineon. The Halifax and Bramwell debentures, totaling \$5 million, were issued on April 1, 2002. The debentures are convertible into the Company's common stock at a fixed conversion price of \$3.769, which is equal to 110% of the five-day volume weighted average price ("VWAP") of the Company's common stock prior to the transaction signing. The debentures issued to Halifax and Bramwell are secured by a Deed of Trust on the Company's headquarters facility in Colorado Springs, Colorado. The Infineon debenture is secured by a security interest the Company granted to Infineon in certain of its accounts receivable and patents. The debenture agreement requires capital expenditures of less than

\$1.5 million and EBITDA losses of less than \$2 million for the year ended December 31, 2002. The Company was in compliance with these covenants at December 31, 2002. Interest paid to the debenture holders during 2002 was approximately \$305,000.

In addition, 700,435 5-year common stock warrants were issued to the investors with an exercise price of \$4.28 per share. The warrants were valued using the Black Scholes option pricing method with a resulting total value of approximately \$1,773,000. The following assumptions were used to value these warrants: risk free interest rate of 4.93%, expected yield of 0%, expected life of five years, and expected volatility of 113%. This amount is accounted for as a discount to the outstanding debentures and will be amortized over the remaining life of the debentures as a charge to interest expense. The unamortized discount pertaining to the outstanding debentures as of December 31, 2002 as a result of the issuance of the warrants is approximately \$1,507,000.

As a result of the conversion terms of these debentures, a beneficial conversion feature of \$900,000 was created. This beneficial conversion feature is recorded as an increase to additional paid-in-capital and as a debt discount to the outstanding debentures. This discount will be amortized over the remaining life of the debentures

as a charge to interest expense. The unamortized discount pertaining to the outstanding debentures as of December 31, 2002 as a result of the beneficial conversion feature is approximately \$765,000.

## 6. COMMITMENTS:

**LEASE COMMITMENTS.** The Company has commitments under non-cancelable operating leases expiring through 2006 for various equipment. Minimum future annual lease payments under these leases as of December 31, 2002 are as follows:

2003	\$ 987,000
2004	745,000
2005	19,000
2006	15,000
	<u>\$1,766,000</u>

Total rent expense on all operating leases was \$1,312,000, \$698,000 and \$490,000 for 2002, 2001 and 2000, respectively.

**EMPLOYMENT AGREEMENTS.** The Company has employment agreements with certain employees, which provide for certain payments and continuation of benefits should their employment terminate as defined in the employment agreements.

**MANUFACTURING ALLIANCES.** The Company has entered into third-party manufacturing agreements for the supply of its FRAM and Enhanced-DRAM products. The Company has relied and will continue to rely on such manufacturing relationships as the primary source of manufacturing for its products. The Company's third-party manufacturing agreements provide only for a call on the manufacturing capacity of the vendors. The product will be supplied to the Company at prices negotiated between the Company and such third-party manufacturers based on current market conditions. The Company does not engage in any take-or-pay agreements with its manufacturing alliances.

## 7. STOCKHOLDERS' EQUITY:

**PREFERRED STOCK PLACEMENT.** In February 1998, the Company issued and sold in a private placement Series A Convertible Preferred Stock ("Preferred Stock"). On July 20, 1999, the Company's common stockholders approved the restructuring of the terms of the Company's Preferred Stock. After the restructuring, 872 shares of Preferred Stock remained outstanding.

The restated terms of the remaining Preferred Stock included (i) a fixed conversion at \$5.00 per share; (ii) a three-year term expiring on July 31, 2002; (iii) an adjusted dividend rate of 11% per annum (subject to possible future adjustments); and (iv) a mandatory redemption feature at the date of maturity of \$1,000 per share plus accrued dividends. On July 31, 2002, in accordance with the

restated terms of the preferred stock, the Company redeemed 1,160 shares for \$1,174,000.

For the years ended December 31, 2002, 2001 and 2000, the Company recorded \$82,000, \$139,000 and \$99,000 of dividends, respectively and \$14,000, \$24,000 and \$24,000 of discount accretion on redeemable preferred stock, respectively.

**COMMON STOCK PLACEMENT WITH INFINEON TECHNOLOGIES AG.** The Company and Infineon Technologies AG entered into a share purchase agreement dated December 14, 2000 pursuant to which Infineon agreed to invest \$30 million in the Company, \$10 million in cash and \$20 million in Infineon common stock (443,488 shares), in exchange for 4,430,005 shares of the Company's common stock. Upon completion of the transaction Infineon owned approximately 20% of the Company's outstanding common stock. Infineon may transfer or sell its interest in the Company's shares in two equal-installments twelve and eighteen months from the initial closing date. The companies also entered into a separate cross-license agreement that provides Infineon with a nonexclusive license to the Company's FRAM memory technology, and the Company with access to certain Infineon technologies relating to fabrication of FRAM memories. The initial closing occurred February 2, 2001, providing the Company with \$10 million in cash in exchange for 1,476,668 shares of common stock. The final closing was completed on March 30, 2001, providing the Company 443,488 Infineon shares. All Infineon shares were sold by the Company during 2001.

**WARRANTS.** Warrants to purchase shares of the Company's common stock are as follows:

	Exercise Price Per Share	Number of Shares		
		(in thousands)		
		Principal Stockholders	Others	Total
Outstanding and exercisable at December 31, 1999 .....	\$1.15-\$16.22	3,476	16	3,492
Granted .....	\$3.75-\$17.00 <sup>(1)(2)</sup>	667	600	1,267
Exercised .....	\$1.15-\$16.22	(667)	(571)	(1,238)
Outstanding and exercisable at December 31, 2000 .....	\$2.25-\$17.00	3,476	45	3,521
Cancelled .....	\$10.81-\$16.22	(1,683)	--	(1,683)
Outstanding and exercisable at December 31, 2001 .....	\$2.25-\$17.00	1,793	45	1,838
Cancelled .....	\$5.00	(220)	(20)	(240)
Granted .....	\$3.77-\$4.28 <sup>(3)</sup>	700	76	776
Outstanding and exercisable at December 31, 2002 .....	\$2.25-\$17.00	2,273	101	2,374

All of the outstanding warrants are currently exercisable. Of such warrants, warrants to purchase 25,000 shares at \$17.00 expire in March 2003; warrants to purchase 18,000 shares at \$3.77 expire in March 2004; warrants to purchase 758,000 shares at \$4.11 and \$4.28 expire in March 2004; warrants to purchase 667,000 shares at \$6.88 expire in December 2007; and warrants to purchase 906,000 shares of common stock with an exercise price of \$2.25 expire in 2008 and 2009.

- (1) In January 2000, the Company issued 667,000 warrants to its then Chairman, L. David Sikes, at an exercise price of \$6.88, the fair value of common stock at the date of issuance. The warrants vested December 31, 2002 and are exercisable through 2007.
- (2) In January 2000, the Company issued 25,000 warrants to a third party for services provided at an exercise price of \$17.00. These warrants vested immediately, are exercisable through March 2003 and were valued at \$182,000 with the charge being included in sales, general and administrative expenses in the accompanying 2000 consolidated statements of operations.
- (3) In March 2002, the Company issued 700,000 warrants to purchasers of \$8 million of convertible debentures offered by the Company at an exercise price of \$4.28. These warrants vested immediately, expire in 2007 and were valued at \$1,773,000.

All other outstanding warrants had a nominal value at the time of issuance.

**DEFERRED COMPENSATION.** Subject to shareholder approval to amend the Company's 1995 Stock Option Plan, options to purchase 500,000 shares of the Company's common stock were approved by the Board of Directors for certain officers of the Company on September 28, 1999, with an exercise price of \$2.25 per share. On December 22, 1999 shareholders approved the amendment of the 1995 Stock Option Plan. On that date, the aggregate intrinsic value of the options was \$2,578,000 and was recorded as deferred compensation. The unamortized compensation expense as of December 31, 2002, 2001 and 2000 was approximately \$0, \$0 and \$202,000, respectively.

**STOCK OPTIONS.** The Company has four stock option plans, the Amended and Restated 1986 Stock Option Plan (the "1986 Plan"), the 1989 Non-statutory Stock Option Plan (the "1989 Plan"), the

1995 Stock Option Plan, as amended (the "1995 Plan"), and the 1999 Stock Option Plan (the "1999 Plan") (collectively, the "Plans"). The Plans reserve 6,235,714 shares of the Company's common stock for issuance and permit the issuance of non-qualified stock options. The exercise price of all non-qualified stock options must be equal to at least 85% of the fair market value of the common stock on the date of grant in the 1986 and 1989 Plans and 95% in the 1995 and 1999 Plans, and the maximum term of each grant is ten years. Options granted become exercisable in full or in installments pursuant to the terms of each agreement evidencing options granted. The 1986 and the 1995 Plans also permit the issuance of incentive stock options. As of December 31, 2002, the Company has not granted any incentive stock options. The number of options available for future grant on these plans is 907,304.

The Company accounts for these plans under APB Opinion No. 25, under which no compensation cost is recognized for grants with an exercise price equal to or in excess of the value of the underlying stock on the measurement date.

Activity in the Plans is as follows:

	Weighted Average Exercise Price Per Share	Number of Shares		
		Directors and Officers	Employees	Total
Outstanding at December 31, 1999.....	\$13.92	855	925	1,780
Granted .....	\$ 6.72	805	846	1,651
Cancelled .....	\$20.37	(18)	(86)	(104)
Exercised .....	\$ 2.33	--	(80)	(80)
Reclassification .....		(122)	122	--
Outstanding at December 31, 2000.....	\$10.33	1,520	1,727	3,247
Granted .....	\$ 2.33	413	764	1,177
Cancelled .....	\$14.67	(158)	(375)	(533)
Exercised .....	\$ 2.23	--	(174)	(174)
Reclassification .....		(18)	18	--
Outstanding at December 31, 2001.....	\$ 7.56	1,757	1,960	3,717
Granted .....	\$ 3.74	400	713	1,113
Cancelled .....	\$ 9.93	(10)	(242)	(252)
Exercised .....	\$ 2.19	--	(43)	(43)
Outstanding at December 31, 2002.....	\$ 6.54	2,147	2,388	4,535

As of December 31, 2002, 2001 and 2000, 2,406,000, 1,792,000 and 1,305,000 of the above options were exercisable, respectively, with weighted average exercise prices of \$8.79, \$10.90 and \$16.27, respectively.

The following table sets forth the exercise price range, number of shares, weighted average exercise price and remaining contractual lives by groups of options:

Exercise Price Range	Number of Options Outstanding (in thousands)	Weighted Average	
		Exercise Price	Remaining Contractual Life
\$1.47 - \$ 1.88	919	\$ 1.87	8.78
\$1.90 - \$ 3.76	804	2.41	7.23
\$3.80 - \$ 3.80	994	3.80	9.93
\$3.90 - \$ 7.44	1,281	6.38	7.58
\$7.62 - \$40.95	537	26.13	4.41
	<u>4,535</u>		

Exercise Price Range	Number of Options Exercisable (in thousands)	Weighted Average	
		Exercise Price	Remaining Contractual Life
\$1.47 - \$ 1.88	367	\$ 1.87	8.78
\$1.90 - \$ 3.76	657	2.29	7.23
\$3.80 - \$ 3.80	150	3.80	9.93
\$3.90 - \$ 7.44	740	6.41	7.58
\$7.62 - \$40.95	492	27.74	4.41
	<u>2,406</u>		

## 8. RELATED PARTY TRANSACTIONS:

**TRANSACTIONS WITH THE FUND.** The National Electrical Benefit Fund (the "Fund") is a principal stockholder of the Company.

Pursuant to a Stock and Warrant Purchase Agreement dated March 13, 1989 between the Company and the Fund, as amended by Amendment No. 1 thereto dated June 29, 1989 (the "1989 Fund Purchase Agreement"), the Company agreed to pay to the Fund, for as long as the Fund owns at least 5% of the outstanding shares of the Company's common stock, a reasonable monthly consulting fee of not more than \$5,000 and to reimburse the Fund for all out-of-pocket expenses incurred in monitoring the Fund's investment in the Company. During 2002, 2001 and 2000, the Company was obligated to pay to the Fund approximately \$80,000 per year in payment of such fees and expenses. Payments made for these obligations were \$0, \$471,000 and \$0 during 2002, 2001 and 2000, respectively. The \$471,000 payment in 2001 included previously accumulated fees and expenses. \$100,000 and \$40,000 related to this obligation are included in accrued liabilities as of December 31, 2002 and 2001, respectively.

In September 1995, the Company and the Fund entered into a Loan Agreement (the "Fund Credit Facility") which was amended on August 6, 1999. Pursuant to the terms of the amended credit facility (the "Amended Credit Facility"), the outstanding principal balance under the note was \$7 million. The Amended Credit Facility bore interest at 8% per annum, payable quarterly. The Fund had the right to convert all or any portion of the amounts outstanding under the Amended Credit Facility into common stock at any time or times before maturity of the loan at a conversion price equal to \$5.00 for each share of common stock. The maturity date of the credit facility, as amended, was July 12, 2002. On August 22, 2001, the Company exercised the prepayment provision of the note by notifying the Fund of the Company's intention to prepay the balance due no later than January 2, 2002. The Fund's common stock conversion privileges remained in effect until payment was made. On November 9, 2001, the Fund elected to accept payment in lieu of a conversion to the Company's common stock. On

November 15, 2001, the Company paid to the Fund all outstanding principal and interest amounts due, totaling \$7.1 million.

**TRANSACTIONS INVOLVING DIMENSIONAL FUND ADVISORS, INC.** Dimensional Fund Advisors, Inc. is a principal shareholder of the Company.

In connection with the restructuring of the Company's Series A Preferred Stock in August 1999, the Company entered into agreements with certain affiliates of Dimensional Fund Advisors, Inc. (the "DFA Affiliates") to issue to each DFA Affiliate an unsecured convertible promissory note (together, the "DFA Promissory Notes") in consideration of the termination of certain Common Stock purchase rights of the DFA Affiliates. Such purchase rights were recorded as a common stock price adjustment liability in balance sheets prior to September 30, 1999. The DFA Promissory Notes, which totaled \$3,223,712, bore interest at 8% per annum and were to mature on July 31, 2000. All or part of the principal and accrued and unpaid interest of the DFA Promissory Notes were convertible into common stock at the option of the holder of the note at a conversion ratio of one share of common stock for each \$5.00 of principal and accrued interest converted. On February 29, 2000, the DFA Affiliates elected to convert all outstanding principal and accrued interest totaling approximately \$3,378,000 into 675,547 shares of the Company's common stock.

**TRANSACTIONS INVOLVING INFINEON TECHNOLOGIES AG.** Infineon Technologies AG is a principal stockholder of the Company.

The Company and Infineon Technologies AG entered into a share purchase agreement dated December 14, 2000 pursuant to which Infineon agreed to invest \$30 million in the Company, \$10 million in cash and \$20 million in Infineon common stock (443,488 shares), in exchange for 4,430,005 shares of the Company's common stock. Upon completion of the transaction Infineon owned approximately 20% of the Company's outstanding common stock. Infineon may transfer or sell its interest in the Company's shares in two equal-installments twelve and eighteen months from the initial closing date. The companies also entered into a separate cross-

license agreement that provides Infineon with a nonexclusive license to the Company's FRAM memory technology, and the Company with access to certain Infineon technologies relating to fabrication of FRAM memories. In January 2000, the Company's then wholly owned subsidiary, EMS, entered into a non-exclusive, worldwide technology licensing agreement with Infineon Technologies AG ("Infineon"). In consideration for the grant of the license, Infineon received 20% of the outstanding common stock of EMS. Additionally, the agreement calls for Infineon to provide EMS with up to \$200 million per year of committed wafer manufacturing capacity using Infineon's advanced DRAM and embedded DRAM process capabilities and access to Infineon's design technology. The agreement, as amended, has a term of ten years. The technology license was valued at approximately \$1,983,000 and is being amortized over six years. Payments to Infineon for wafers, photomasks and tooling charges related to EMS's committed wafer manufacturing capacity during 2002, 2001 and 2000 were approximately \$2,174,000, \$2,272,000 and \$1,002,000, respectively.

On March 29, 2002, the Company issued a \$3 million, 5% interest, 5 year debenture to Infineon. The debenture is convertible into the Company's common stock at a fixed conversion price of \$3.769, which is equal to 110% of the five-day volume weighted average price("VWAP") of the Company's common stock prior to the transaction signing. The Infineon debenture is secured by a security interest the Company granted to Infineon in certain of its accounts receivable and patents. In addition, 262,663 5-year common stock warrants were issued to Infineon with an exercise price of \$4.28 per share. Interest paid to Infineon during 2002 was approximately \$115,000.

#### 9. SUPPLEMENTAL CASH FLOW INFORMATION:

Cash paid for interest and income taxes:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
	(in thousands)		
Interest	\$326	\$533	\$815
Income taxes	--	--	--

#### 10. INCOME TAXES:

As of December 31, 2002, the Company had approximately \$151 million of net operating loss carryovers for tax purposes. Further, the Company has approximately \$1.6 million of research and development tax credits available to offset future federal and state income taxes. The net operating loss and credit carryovers expire through 2022. The Internal Revenue Code contains provisions, which may limit the net operating loss carryforwards available to be used in any given year if certain events occur, including significant changes in ownership interests. The components of deferred income taxes are as follows:

	<u>December 31,</u>	
	<u>2002</u>	<u>2001</u>
	(in thousands)	
Deferred tax assets:		
Capital loss carryovers.....	\$ 7,300	\$ 7,300
Deferred revenue .....	3,200	4,300
Other .....	3,300	3,700
Net operating loss carryovers .....	<u>60,900</u>	<u>60,900</u>
	74,700	76,200
Valuation allowance.....	<u>(74,700)</u>	<u>(76,200)</u>
	<u>\$ --</u>	<u>\$ --</u>

Management has determined, based on all available evidence, it is more likely than not that the deferred tax assets will not be realized. Accordingly, the Company has recorded a valuation allowance equal to its net deferred tax assets as of December 31, 2002.

The provision for income taxes includes the following:

	December 31,		
	2002	2001	2000
	(in thousands)		
<b>Current:</b>			
Federal .....	\$ --	\$ --	\$ --
State .....	--	--	--
Total current.....	--	--	--
<b>Deferred:</b>			
Federal .....	(500)	(11,000)	(4,640)
State .....	(50)	(1,600)	(700)
Total deferred benefit.....	(550)	(12,600)	(5,340)
Increase in valuation allowance .....	550	12,600	5,340
Total provision .....	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>

Total income tax expense differs from the amount computed by applying the statutory federal income tax rate to income before taxes. The reasons for this difference for the years ended December 31 were as follows:

	2002	2001	2000
		(in thousands)	
Computed tax at federal statutory rate.....	\$ (639)	\$(11,546)	\$(5,031)
State income taxes, net of federal benefit.....	(91)	(1,649)	(718)
Non-deductible expenses .....	180	595	409
Increase in valuation allowance .....	550	12,600	5,340
Total income tax expense .....	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>

During 2002 and 2001, net operating loss carryovers of approximately \$5.1 million and \$4.7 million, respectively, expired.

Tax expense other than payroll and income taxes were \$269,000, \$119,000 and \$399,000 for 2002, 2001 and 2000, respectively.

#### 11. LOSS ON DISPOSITION OF MARKETABLE EQUITY SECURITIES:

During 2001, the Company sold 443,488 shares of Infineon common stock the Company held, consisting of all of the shares obtained through the share purchase agreement with Infineon dated December 14, 2000. The Company received proceeds of \$8.6 million from these sales. During 2001, the Company recorded a loss of \$11.4 million on the disposition and impairment of these securities.

#### 12. ACQUISITION OF MUSHKIN INC.:

On June 14, 2000, the Company entered into a merger transaction among the Company, a wholly owned subsidiary of Ramtron International Corporation, Mushkin Inc. ("Mushkin"), and the Mushkin shareholders. In this transaction Ramtron acquired all of the issued and outstanding shares of Mushkin for 952,380 shares of Ramtron common stock valued at \$10,000,000. The acquisition was accounted for as a purchase. Accordingly, Ramtron's consolidated financial statements include the results of operations of Mushkin since the acquisition date. The total purchase price was allocated based on fair value of assets acquired and liabilities assumed as follows:

(in thousands)	
Fair value of tangible net assets .....	\$ 667
Goodwill.....	9,333
	<u>\$10,000</u>

Given the current unsettled and volatile economic environment, it is possible that a future evaluation of the realizability of the goodwill recorded in this transaction could result in a determination that an impairment charge could be required, and such impairment charge could be material.

Summarized below are the unaudited pro forma results of operations of the Company as if Mushkin had been acquired at January 1, 2000.

	Pro Forma Year Ended December 31, 2000 <u>(in thousands, except per share data)</u>
Revenue.....	\$32,186
Net loss .....	(14,422)
Net loss applicable to common shares.....	(14,545)
Net loss per share - basic and diluted .....	\$ (0.85)

### 13. SEGMENT AND GEOGRAPHIC AREA INFORMATION:

The Company's reportable segments are those that are based on the Company's method of internal reporting, which generally segregates the strategic business units due to differences in products and distributions.

The Company's operations are conducted through three business segments. FRAM licenses, manufactures and distributes ferroelectric nonvolatile random access memory products. EMS licenses, manufactures and distributes high-speed DRAM products. Mushkin distributes high-speed DRAM products in the aftermarket through both direct and e-commerce sales channels.

The accounting policies for determining segment net income (loss) are the same used in the consolidated financial statements. There are no internal sales between segments or geographic regions.

*(chart on next page)*

	2002			2001			2000		
	FRAM	EMS	Mushkin Total	FRAM	EMS	Mushkin Total	FRAM	EMS	Mushkin Total
Product sales	\$22,224	\$ 1,772	\$16,313 \$40,309	\$ 4,541	\$ 1,158	\$11,514 \$ 17,213	\$ 3,988	\$ 7,594	\$ 6,680 \$ 18,262
License & development fees	6,829	--	-- 6,829	2,602	102	-- 2,704	2,000	--	-- 2,000
Royalties	398	--	-- 398	295	--	-- 295	188	--	-- 188
Customer sponsored research and development	578	2,431	-- 3,009	--	2,644	-- 2,644	4,541	1,088	-- 5,629
Operating costs	30,029	4,203	16,313 50,545	7,438	3,904	11,514 22,856	10,717	8,682	6,680 26,079
Operating income (loss)	(23,730)	(11,376)	(16,470) (51,576)	(16,874)	(14,274)	(12,678) (43,826)	(20,264)	(12,214)	(6,526) (39,004)
Other	6,299	(7,173)	(157) (1,031)	(9,436)	(10,370)	(1,164) (20,970)	(9,547)	(3,532)	154 (12,925)
Net income (loss)	(188)	190	-- 2	23	268	-- 291	14	707	-- 721
Total assets	\$ 6,111	\$(6,983)	\$ (157) \$ (1,029)	\$ (9,413)	\$(10,102)	\$(1,164) \$(20,679)	\$(9,533)	\$(2,825)	\$ 154 \$(12,204)
Depreciation and amortization	\$23,711	\$ 7,757	\$ 9,474 \$40,942	\$19,729	\$ 6,270	\$ 9,820 \$ 35,819	\$19,074	\$ 8,683	\$10,605 \$ 38,362
Capital additions	\$ 1,123	\$ 689	\$ 25 \$ 1,837	\$ 1,287	\$ 783	\$ 1,363 \$ 3,433	\$ 1,625	\$ 786	\$ 735 \$ 3,146
Intangible additions	\$ 496	\$ 185	\$ 24 \$ 706	\$ 393	\$ 27	\$ 13 \$ 433	\$ 206	\$ 427	\$ 2 \$ 635
	\$ 527	\$ --	\$ -- \$ 527	\$ 434	\$ 124	\$ -- \$ 558	\$ 232	\$ 2,307	\$ 9,333 \$ 11,872

(in thousands)

Net income (loss) before cumulative effect of accounting change excludes interest income, interest expense and special charges on a total basis of \$(798,000), \$(12,309,000) and \$(670,000) in 2002, 2001 and 2000, respectively, not allocated to business segments.

During 2000, intangible additions include \$9,333,000 related to the acquisition of Mushkin and \$1,983,000 of technology licenses acquired through the issuance of EMS common stock.

Revenue amounts and percentages for major customers representing more than 10% of total revenue are as follows:

	2002		2001		2000	
	FRAM	Enhanced DRAM	FRAM	Enhanced DRAM	FRAM	Enhanced DRAM
	(in thousands)					
Customer A .....	--	--	--	--	\$6,587	25%
Customer B .....	--	--	--	--	--	\$4,058
Customer C .....	\$6,508	13%	\$2,667	12%	--	--
Customer D .....	--	--	2,567	11%	--	--
Customer E .....	16,339	32%	--	--	--	--
Customer F .....	--	\$6,714	13%	--	--	--

The following geographic area data include revenue based on product shipment destination, license and development payor location and customer-sponsored research and development payor location. The data presented for long-lived assets is based on physical location.

Geographic Area Net Revenues:

	2002	2001	2000
	(in thousands)		
United States .....	\$26,813	\$17,651	\$14,658
Japan .....	1,791	772	7,706
Canada .....	752	291	1,392
United Kingdom .....	879	561	541
Germany .....	1,293	683	627
China/Hong Kong .....	10,662	629	--
Italy .....	6,648	1,674	--
Rest of world .....	1,707	595	1,155
Total .....	<u>\$50,545</u>	<u>\$22,856</u>	<u>\$26,079</u>

Geographic Area Long-lived Assets (Net):

	2002	2001	2000
	(in thousands)		
United States .....	\$19,342	\$19,276	\$21,810
Thailand .....	179	294	171
Rest of world .....	34	47	78
Total .....	<u>\$19,555</u>	<u>\$19,617</u>	<u>\$22,059</u>

As of December 31, 2002, the Company had \$2.6 million due from a significant customer that was not being paid in accordance with established payment terms. Through March 31, 2003, the Company has received approximately \$1.5 million in payments from this customer. Based on the subsequent payments and other information available to management, the Company believes that the remaining balance will ultimately be collected and, as such, no reserves have been recorded related to this outstanding balance. The amount the Company will ultimately receive in future payments from this customer could differ materially from the amounts recorded as of December 31, 2002 and could require additional charges for uncollectible accounts receivable.

#### 14. DEFINED CONTRIBUTION PLAN:

The Company has a cash or deferred compensation plan (the "401(k) Plan") intended to qualify under Section 401(k) of the Internal Revenue Code of 1986, as amended (the "Code"), in which substantially all employees are participants. Participants in the 401(k) Plan may make maximum pretax contributions, subject to limitations imposed by the Code, of 100% of their compensation. The Company may make, at the Board of Directors' discretion, an annual contribution on behalf of each participant. No amounts have been contributed by the Company under the 401(k) Plan on behalf of participating employees.

#### 15. CONTINGENCIES:

**PATENT INTERFERENCE PROCEEDING.** A patent interference proceeding, which was declared in 1991 in the United States Patent and Trademark Office (the "Patent Office") between the Company, National Semiconductor Corporation ("National") and the Department of the Navy in regard to one of the Company's issued United States patents, is continuing. The patent involved covers a basic ferroelectric memory cell design invention the Company believes is of fundamental importance to its FRAM business in the United States. An interference is declared in the Patent Office when two or more parties each claim to have made the same invention. The interference proceeding is therefore conducted to determine which party is entitled to the patent rights covering the invention. In the present interference contest, the Company is the "senior" party, which means that it is in possession of the issued United States Patent and retains all rights associated with such patent. The other two parties involved in the interference are the "junior" parties, and each has the burden of proof of convincing the Patent Office by a preponderance of the evidence that it was the first to invent the subject matter of the invention and thus is entitled to the corresponding patent rights. Only the Company and National filed briefs in this matter. Oral arguments were presented before the Patent Office on March 1, 1996.

The Patent Office decided the interference on May 6, 1997, holding that all of the claims were patentable to National, one of the "junior" parties. The other "junior" party, the Department of the Navy, was not granted any patent claims pursuant to the interference proceedings. On June 20, 1997, the Company filed a Request for Reconsideration with the Patent Office concerning the interference decision. Pursuant to the Request for Reconsideration, the Company requested that five separate issues be reconsidered because, from the Company's perspective, they were either ignored or misconstrued in the original decision. A decision on the Request for Reconsideration was issued on November 19, 1998, again holding that all of the claims were patentable to National. On January 9, 1999, the Company appealed the decision of the Patent Office on one of the interference counts directly to the Court of Appeals for the Federal Circuit. On February 2, 2000, the Court of Appeals vacated and remanded

the decision of the Patent Office for further proceedings. The Company also filed complaints in Federal District Court in the District of Columbia seeking a review of the decision of the Patent Office on the remaining interference counts, which are still pending. The Company remains in possession of the issued United States Patent and retains all rights associated with such patent while it pursues its appeal options. The "junior" party has received no rights associated with this patent decision and will not receive any such rights as long as the appeal process continues. Under a Patent Office decision on August 13, 2001, the Company was found to be the first to invent, however, the Patent Office concluded that the enablement and best-mode requirements for patent issuance had not been met by the Company. In October 2001, both the Company and National filed a Request for Reconsideration with the Patent Office. In November 2002, the Patent Office informed the Company and National that it will not change its August 2001 decision. In December 2002, the Company appealed this decision to the District Court of the District of Columbia.

If the Company's patent rights that are the subject of the interference proceeding are ultimately lost or significantly compromised, the Company would be precluded from producing FRAM products in the United States using the Company's existing design architecture, absent being able to obtain a suitable license to exploit such rights. If such patent rights are ultimately awarded to National, and if a license to such rights is not subsequently entered into by the Company with National, National could use the patent to prevent the manufacture, use or sale by the Company, and/or its licensees, within the United States of any products that come within the scope of such patent rights, which would include all FRAM products as currently designed, and which would materially adversely affect the Company. The Company has vigorously defended its patent rights in this interference contest and will continue such efforts. The Company is uncertain as to the ultimate outcome of the interference proceeding, as well as to the resulting effects upon the Company's financial position or results of operations.

**OTHER LITIGATION.** The Company is involved in other legal matters in the ordinary course of business. Although the outcomes of any such legal actions cannot be predicted, management believes that there is no pending legal proceeding against or involving the Company for which the outcome is likely to have a material adverse effect upon the Company's financial position or results of operations.

## 16. QUARTERLY DATA (UNAUDITED):

The following unaudited information shows selected items by quarter for the years 2002 and 2001.

	2002				2001			
	Q1	Q2	Q3	Q4	Q1 <sup>(1)</sup>	Q2	Q3	Q4
	(in thousands except per share data)							
Revenues	\$12,624	\$12,645	\$13,825	\$11,451	\$3,455	\$3,351	\$7,535	\$8,515
Gross margin, product sales	2,514	3,422	3,420	2,919	908	613	1,024	290 <sup>(1)</sup>
Operating income (loss)	(1,083)	(419)	384	87	(6,630)	(6,022)	(3,611)	(4,707)
Net loss applicable to common shares	(1,153)	(761)	139	(148)	(6,555)	(6,231)	(15,872) <sup>(2)</sup>	(4,493)
Net loss per share								
- basic	\$(0.05)	\$(0.03)	\$0.01	\$(0.01)	\$(0.35)	\$(0.28)	\$(0.72)	\$(0.20)
- diluted	\$(0.05)	\$(0.03)	\$0.01	\$(0.01)	\$(0.35)	\$(0.28)	\$(0.72)	\$(0.20)

(1) Includes provision for inventory write-off of \$912,000.

(2) Includes charges of \$11.9 million resulting from an other than temporary decline in the market value of Infineon stock held by the Company.

## 17. GOODWILL AND OTHER INTANGIBLE ASSETS:

In June 2001, the FASB issued SFAS No. 142. SFAS No. 142 changes the accounting for goodwill and intangible assets and requires that goodwill no longer be amortized but be tested for impairment at least annually at the reporting unit level in accordance with SFAS No. 142. Recognized intangible assets with determinable useful lives should be amortized over their useful life and reviewed for impairment in accordance with Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." The provisions of SFAS No. 142 are effective for fiscal years beginning after December 15, 2001, except for provisions related to the non-amortization and amortization of goodwill and intangible assets acquired after June 30, 2001, which were subject immediately to the provisions of SFAS No. 142. The Company adopted SFAS No. 142 on January 1, 2002. SFAS No. 142 requires a transitional goodwill impairment test at each reporting unit within six months of the date of adoption. However, the amounts used in the transitional goodwill impairment testing are measured as of January 1, 2002. The Company completed its analysis of the fair value of its goodwill and determined there is no indicated impairment of its goodwill. In addition, the Company performed its annual impairment test as of December 31, 2002 and determined there is no indicated impairment of goodwill. In addition, the Company has determined that the classifications of its intangible assets previously acquired and the related useful lives established were not impacted by the provisions of SFAS No. 142.

On January 1, 2002, in accordance with SFAS No. 142, the Company ceased amortization of its goodwill which occurred on or before June 30, 2001. The following information is presented as if SFAS No. 142 was adopted as of January 1, 2000. The reconciliation of previously reported earnings and earnings per share to the amounts adjusted for the exclusion of goodwill amortization net of the related income tax effect is as follows:

	For the years ended December 31,		
	2002	2001	2000
	(in thousands, except per share amounts)		
Reported net loss applicable to common shares .....	\$(1,923)	\$(33,151)	\$(14,497)
Add: Goodwill amortization .....	--	1,534	923
Adjusted net loss applicable to common shares .....	\$(1,923)	\$(31,617)	\$(13,574)
Reported loss per common share - basic and diluted .....	\$ (0.09)	\$ (1.57)	\$ (0.88)
Add: Goodwill amortization .....	--	0.06	0.06
Adjusted loss per common share - basic and diluted ...	\$ (0.09)	\$ (1.49)	\$ (0.82)

The changes in the carrying amount of goodwill for the twelve months ended December 31, 2002, by business segment are as follows:

	<u>Balance as of January 1, 2002</u>	<u>Goodwill Acquired During the Year</u> (in thousands)	<u>Balance as of December 31, 2002</u>
FRAM .....	\$ 585	\$ --	\$ 585
EMS .....	--	--	--
Mushkin .....	<u>7,278</u>	--	<u>7,278</u>
Total .....	<u>\$7,863</u>	<u>\$ --</u>	<u>\$7,863</u>

Included in other intangible assets on the Company's Consolidated Balance Sheets are the following:

	<u>December 31,</u>	
	<u>2002</u>	<u>2001</u>
	(in thousands)	
Amortizable intangible assets:		
Patents .....	\$ 7,934	\$ 7,788
Product license fees .....	2,150	2,150
Process technology .....	1,983	1,983
Accumulated amortization .....	<u>(5,780)</u>	<u>(5,108)</u>
Total .....	<u>\$ 6,287</u>	<u>\$ 6,813</u>

Amortization expense for intangible assets for the twelve months ended December 31, 2002, 2001 and 2000 was approximately \$790,000, \$812,000 and \$1,078,000, respectively.

Estimated amortization expense for intangible assets, is \$800,000 in 2002, \$800,000 in 2003, \$800,000 in 2004, \$800,000 in 2005, \$800,000 in 2006 and \$2.3 million thereafter.

#### 18. SUBSEQUENT EVENT:

On March 31, 2003, the Company signed an agreement with Wells Fargo Business Credit, Inc. to provide a secured \$3.0 million revolving line of credit. The credit facility provides for interest at a floating rate equal to the prime lending rate plus .50% per annum and a term of 3 years. Security for the credit facility includes the Company's non-European accounts receivable and inventories.

## INDEPENDENT AUDITORS' REPORT

The Shareholders and Board of Directors of Ramtron International Corporation:

We have audited the accompanying consolidated balance sheet of Ramtron International Corporation (a Delaware corporation) and subsidiaries as of December 31, 2002, and the related consolidated statements of operations, stockholders' equity and cash flows for the year then ended. In connection with our audit of the 2002 consolidated financial statements, we also have audited the 2002 financial statement schedule as listed in the accompanying index. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audit. The consolidated financial statements of Ramtron International Corporation and subsidiaries as of December 31, 2001 and for each of the two years in the period ended December 31, 2001 were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those consolidated financial statements and financial statement schedule, before the revision described in Note 17 to the consolidated financial statements, in their report dated March 18, 2002.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 2002 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Ramtron International Corporation and subsidiaries as of December 31, 2002, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related 2002 financial statement schedule, when considered in relation to the basic 2002 consolidated financial statements taken as a whole presents fairly, in all material respects, the information set forth therein.

As discussed in Note 17 to the consolidated financial statements, Ramtron International Corporation and subsidiaries adopted the provisions of Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets", effective January 1, 2002.

As discussed above, the consolidated balance sheet of Ramtron International Corporation and subsidiaries as of December 31, 2001, and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended December 31, 2001 and 2000 were audited by other auditors who have ceased operations. As described in Note 17, the consolidated financial statements as of December 31, 2001 and for each of the fiscal years ended December 31, 2001 and 2000 have been revised to include the transitional disclosures required by Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets, which was adopted by the Company as of January 1, 2002. In our opinion, the disclosures for 2001 and 2000 in Note 17 are appropriate. However, we were not engaged to audit, review, or apply any procedures to the 2001 and 2000 financial statements of Ramtron International Corporation other than with respect to such disclosures and, accordingly, we do not express an opinion or any other form of assurance on the 2001 and 2000 financial statements taken as a whole.

KPMG LLP

Denver, Colorado,

February 7, 2003, except

as to the last paragraph of note 13 and note 18,

which are as of March 31, 2003

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Ramtron International Corporation:

We have audited the accompanying consolidated balance sheets of Ramtron International Corporation (a Delaware corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2001. These financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Ramtron International Corporation and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in the index of financial statements is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

As explained in Note 1 to the financial statements, effective January 1, 2000, the Company changed its method of accounting for recognizing revenue on technology licensing activities.

Arthur Andersen LLP  
Denver, Colorado,  
March 18, 2002.

The report of Arthur Andersen LLP (Andersen) is a copy of a report previously issued by Andersen on March 18, 2002. The report has not been reissued by Andersen nor has Andersen consented to its inclusion in this Annual Report on Form 10-K. The Andersen report refers to the consolidated balance sheet as of December 31, 2000, and the consolidated statements of operations, cash flows and stockholders' equity for the year ended December 31, 1999 which are no longer included in the accompanying financial statements.



**Ramtron Securities**

The Company's common stock trades on the Nasdaq National Market tier of The Nasdaq Stock Market under the symbol "RMTR." The Company has not paid any dividends since its inception and does not intend to pay any cash dividends in the foreseeable future. The Company intends to retain any earnings to finance its operations. As of March 25, 2003, the Company had 2,271 registered shareholders of its common stock.

**Transfer Agent**

For information regarding lost stock certificates or changes of address, please contact the Company's transfer agent:

Citibank, N.A  
111 Wall Street  
20th Floor, Zone 7  
New York, NY 10005

**Stockholder and Financial Information**

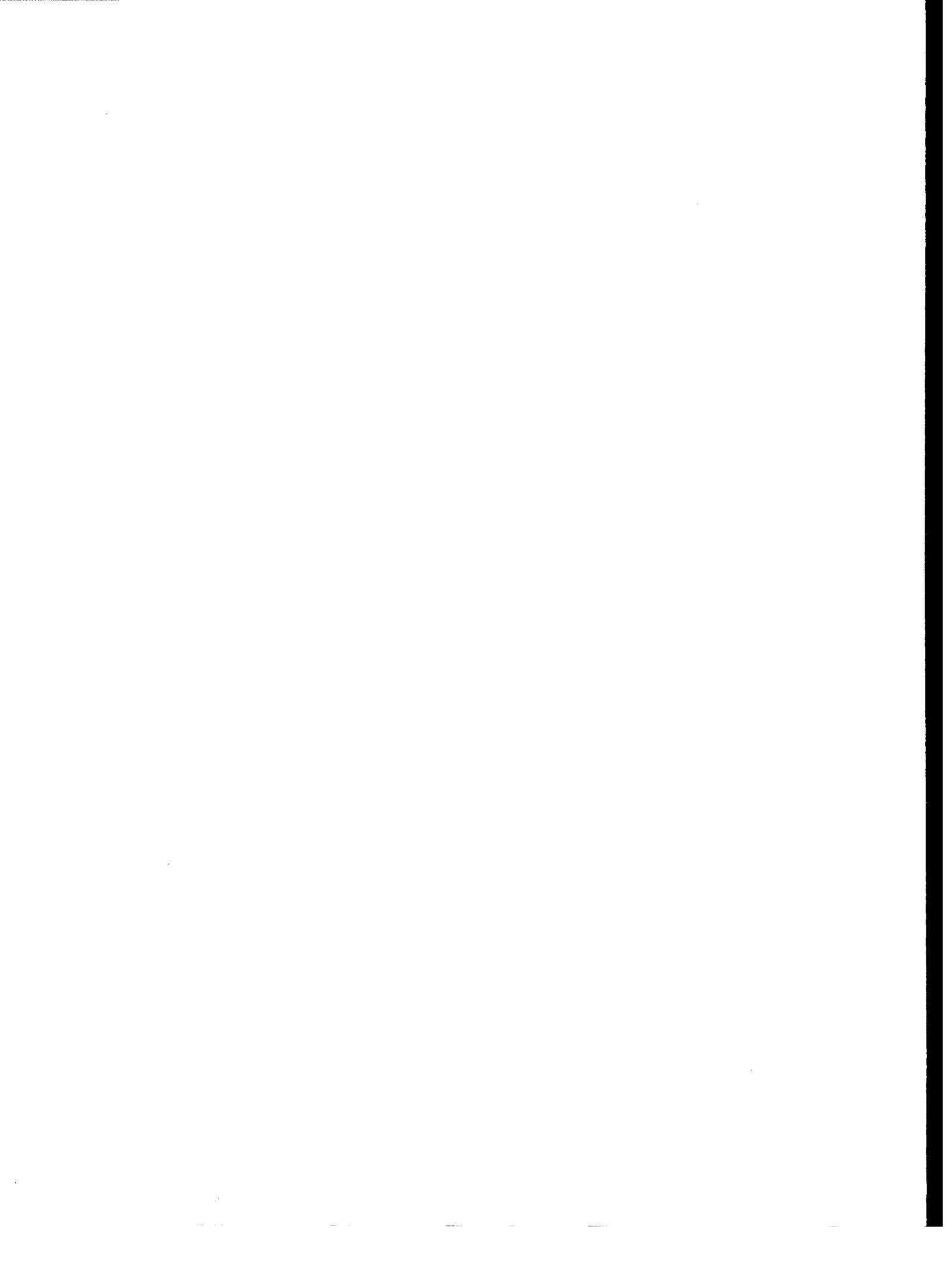
For additional copies of this report or other financial information, Ramtron stockholders or other interested investors can write to:

Ramtron International Corporation  
Investor Relations Department  
1850 Ramtron Drive  
Colorado Springs, CO 80921  
719-481-7000

**Directors and Officers**

Albert J. Hugo-Martinez ..... Chairman of the Board  
William W. Staunton, III. .... Director and Chief Executive Officer  
Greg B. Jones ..... Director and President-Technology Group  
William G. Howard ..... Director  
Eric A. Balzer ..... Director  
Klaus Fleischmann ..... Director  
Harald Eggers ..... Director  
LuAnn D. Hanson ..... Chief Financial Officer and Vice President of Finance

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