

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K/A

CURRENT REPORT PURSUANT
TO SECTION 13 OR 15(D) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): December 5, 1997

Emcore Corporation

(Exact Name of Registrant as Specified in its Charter)

New Jersey

(State or Other Jurisdiction of Incorporation)

000-22175

22-2746503

(Commission File Number)

(I.R.S. Employer Identification No.)

394 Elizabeth Avenue, Somerset, New Jersey 08873

(Address of Principal Executive Offices) (Zip Code)

(732) 271-9090

(Registrant's Telephone Number, Including Area Code)

Not Applicable

(Former Name or Former Address, if Changed Since Last Report)

ITEM 2. ACQUISITION OR DISPOSITION OF ASSETS.

On December 5, 1997 (the "Effective Date"), Emcore Corporation ("Emcore") acquired MicroOptical Devices, Inc. ("MODE"), a Delaware corporation, pursuant to an Agreement and Plan of Merger (the "Merger Agreement"), among Emcore, EMKR Acquisition Corporation (the "Merger Subsidiary"), MODE, and certain stockholders of MODE. Pursuant to the Merger Agreement, the Merger Subsidiary was merged with and into MODE (the "Merger"). As a result of the Merger, MODE became a wholly-owned subsidiary of Emcore. A total of 1,461,866 shares of Common Stock of Emcore were issued to the stockholders of MODE in exchange for all of the issued and outstanding shares of capital stock of MODE. In addition, Emcore has agreed to assume certain unexpired and unexercised options and warrants to acquire Common Stock of MODE, and to issue upon exercise thereof a certain number of shares of the Common Stock of Emcore, as appropriately adjusted pursuant to the terms of the Merger Agreement.

MODE designs and develops high-quality optical components and subsystems based on vertical cavity surface-emitting laser ("VCSEL") technology. Emcore currently intends to operate MODE as a wholly-owned subsidiary and to continue MODE's business substantially in the manner conducted by MODE immediately prior to the Merger.

The foregoing description of the Merger Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Merger Agreement.

This Form 8-K contains forward-looking statements relating to future events that involve risks and uncertainties, including, without limitation, statements about future financial performance of EMCORE and MODE and the effects of the proposed acquisition on EMCORE's business, financial performance, and results of operations. Among the factors which could cause actual results to differ materially from those in the forward-looking statements are failure of the proposed acquisition to achieve the desired synergies and efficiencies; risks associated with the reaction to the proposed acquisition by the market, as well as employees, customers, distributors and others who affect the businesses of EMCORE and/or MODE; the variability of future operating results of EMCORE, MODE or the combined companies following the proposed acquisition; cancellations, rescheduling or delays in product shipments; manufacturing capacity constraint; lengthy sales and qualification cycles; difficulties in the production process; the future financial performance of the combined entity; delays in developing and commercializing new products; increased competition; changes in the compound semiconductor industry, including overall growth of the industry and the continued acceptance of the Company's MOCVD technologies, as well as the newly acquired VCSEL technologies; and other factors detailed in Emcore's filings with the Securities and Exchange Commission, including the registration statement on Form S-1 filed on March 4, 1997.

ITEM 7. FINANCIAL STATEMENTS, PRO FORMA FINANCIAL INFORMATION AND EXHIBITS.

(a) Financial Statements of Business Acquired.

ARTHUR ANDERSEN LLP

Report of Independent Public Accountants

To the Stockholders and Board of Directors of
MicroOptical Devices, Inc.:

We have audited the accompanying balance sheets of MICROOPTICAL DEVICES, INC. (a Delaware corporation in the development stage) (the "Company") as of December 31, 1996 and 1995, and the related statements of operations, stockholders' equity and cash flows for the year ended December 31, 1996 and for the period from inception (August 3, 1995) through December 31, 1995 and 1996. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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 MicroOptical Devices, Inc. as of December 31, 1996 and 1995, and the results of its operations and its cash flows for the year ended December 31, 1996 and for the period from inception (August 3, 1995) through December 31, 1995 and 1996, in conformity with generally accepted accounting principles.

/s/ ARTHUR ANDERSEN LLP

Albuquerque, New Mexico
March 21, 1997

MICROOPTICAL DEVICES, INC.
(A Development Stage Corporation)

BALANCE SHEETS

AS OF DECEMBER 31, 1996 AND 1995

	1996	1995
ASSETS	-----	-----
CURRENT ASSETS:		
Cash and cash equivalents	\$ 991,066	\$125,837
Trade accounts receivable	3,850	150
Inventory	83,926	-
Other current assets	26,544	9,029
	-----	-----
Total current assets	1,105,386	135,016
PROPERTY AND EQUIPMENT, net	2,388,953	5,220
ORGANIZATION COSTS, net	2,814	3,571
	-----	-----
Total assets	\$3,497,153	\$143,807
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 29,580	\$ 18,148
Accrued liabilities	74,600	746
Current portion of obligations under capital leases	38,676	-
Deferred revenue	125,000	-
	-----	-----
Total current liabilities	267,856	18,894
	-----	-----
LONG-TERM LIABILITIES:		
Obligations under capital leases, net of current portion	107,648	-
	-----	-----
COMMITMENTS AND CONTINGENCIES (Notes 8 and 9)		
STOCKHOLDERS' EQUITY:		
Series A Convertible Preferred Stock, \$.001 par value; 1,200,000 shares authorized; 666,666 shares issued and outstanding	666	222
Series B Convertible Preferred Stock, \$.001 par value; 5,333,334 shares authorized, 4,076,088 shares issued and outstanding	4,076	-
Common Stock, \$.001 par value; 6,000,000 shares authorized: 3,000,000 shares issued and outstanding	3,000	1,000
Additional paid-in capital	3,251,532	181,596
Deficit accumulated during development stage	(137,625)	(57,905)
	-----	-----
Total stockholders' equity	3,121,649	124,913
	=====	=====
 Total liabilities and stockholders' equity	 \$3,497,153	 \$143,807
	=====	=====

The accompanying notes to financial statements
are an integral part of these balance sheets.

MICROOPTICAL DEVICES, INC.
(A Development Stage Corporation)

STATEMENTS OF OPERATIONS

FOR THE PERIOD FROM INCEPTION (AUGUST 3, 1995)
THROUGH DECEMBER 31, 1996
AND FOR THE YEAR ENDED DECEMBER 31, 1996
AND FOR THE PERIOD FROM INCEPTION THROUGH DECEMBER 31, 1995

	INCEPTION (AUGUST, 1995) THROUGH DECEMBER 31, 1996	YEAR ENDED DECEMBER 31 1996	PERIOD FROM INCEPTION THROUGH DECEMBER 31, 1995
	-----	-----	-----
REVENUES	\$ 661,350	\$ 661,350	\$ -
COST OF GOODS SOLD	222,967	222,967	-
GROSS MARGIN	438,383	438,383	-
EXPENSES:			
Research and development	339,696	292,592	47,104
General and administrative	192,105	178,540	13,565
Sales and marketing	85,169	85,169	-
Total expenses	616,970	556,301	60,669
Operating (loss)	(178,587)	(117,918)	(60,669)
INTEREST INCOME	40,962	38,198	2,764
NET LOSS	\$ (137,625)	\$ (79,720)	\$ (57,905)
NET LOSS PER SHARE	\$ (.05)	\$ (.03)	\$ (.02)
Weighted Average Number of Post-Split Common Shares Outstanding	3,000,000	3,000,000	3,000,000

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

MICROOPTICAL DEVICES, INC.
(A Development Stage Corporation)

STATEMENTS OF STOCKHOLDERS' EQUITY

FOR THE PERIOD FROM INCEPTION (AUGUST 3, 1995) THROUGH DECEMBER 31, 1996

	SERIES A CONVERTIBLE PREFERRED STOCK		SERIES B CONVERTIBLE PREFERRED STOCK		COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	DEFICIT ACCUMULATED DURING DEVELOPMENT STAGE	TOTAL
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT			
BALANCE, at inception	-	\$ -	-	\$ -	-	\$ -	\$ -	\$ -	\$ -
ISSUANCE OF COMMON STOCK	-	-	-	-	1,000,000	1,000	-	-	1,000
ISSUANCE OF SERIES A CONVERTIBLE PREFERRED STOCK: Net of \$18,182 in issuance costs	222,222	222	-	-	-	-	181,596	-	181,818
NET LOSS	-	-	-	-	-	-	-	(57,905)	(57,905)
BALANCE, December 31, 1995	222,222	222	-	-	1,000,000	1,000	181,596	(57,905)	124,913
ISSUANCE OF SERIES B CONVERTIBLE PREFERRED STOCK: Net of \$48,545 in issuance costs	-	-	1,293,479	1,294	-	-	2,925,162	-	2,926,456
CONVERSION OF NOTE PAYABLE	-	-	65,217	65	-	-	149,935	-	150,000
THREE FOR ONE STOCK SPLIT	444,444	444	2,717,392	2,717	2,000,000	2,000	(5,161)	-	-
NET LOSS	-	-	-	-	-	-	-	(79,720)	(79,720)
BALANCE, December 31, 1996	666,666	\$666	4,076,088	\$4,076	3,000,000	\$ 3,000	\$3,251,532	\$ (137,625)	\$3,121,649

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

MICROOPTICAL DEVICES, INC.
(A Development Stage Corporation)

STATEMENTS OF CASH FLOWS

FOR THE PERIOD FROM INCEPTION (AUGUST 3, 1995)
THROUGH DECEMBER 31, 1996
AND FOR THE YEAR ENDED DECEMBER 31, 1996
AND FOR THE PERIOD FROM INCEPTION THROUGH DECEMBER 31, 1995

	INCEPTION (AUGUST, 1995) THROUGH DECEMBER 31, 1996	YEAR ENDED DECEMBER 31, 1996	PERIOD FROM INCEPTION THROUGH DECEMBER 31, 1995
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	\$ (137,625)	\$ (79,720)	\$(57,905)
Adjustments to reconcile net loss to net cash provided by operating activities--			
Depreciation and amortization	34,430	31,894	536
	(105,195)	(47,826)	(57,369)
Changes in certain operating accounts--			
Trade accounts receivable	(3,850)	(3,700)	(150)
Inventory	(83,926)	(83,926)	--
Other current assets	(26,544)	(17,515)	(9,029)
Accounts payable	29,580	11,432	18,148
Accrued liabilities	74,600	73,854	746
Deferred revenue	125,000	125,000	--
	114,860	105,145	9,715
Net cash provided by (used in) operating activities	9,665	57,319	(47,654)
CASH FLOWS USED BY INVESTING ACTIVITIES:			
Additions to equipment	(2,420,513)	(2,414,970)	(5,543)
Proceeds from sale and leaseback of equipment	150,234	150,234	--
Additions to organization costs	(3,784)	--	(3,784)
Net cash used in investing activities	(2,274,063)	(2,264,736)	(9,327)
CASH FLOWS PROVIDED BY FINANCING ACTIVITIES:			
Proceeds from issuance of notes payable	150,000	150,000	--
Repayments of obligations under capital leases	(3,810)	(3,810)	--
Net proceeds from issuance of preferred stock	3,108,274	2,926,456	181,818
Net proceeds from issuance of common stock	1,000	--	1,000
Net cash provided by financing activities	3,255,464	3,072,646	182,818
NET INCREASE IN CASH AND CASH EQUIVALENTS	991,066	865,229	125,837
CASH AND CASH EQUIVALENTS, beginning of period	--	125,837	--
CASH AND CASH EQUIVALENTS, end of period	\$ 991,066	\$ 991,066	\$125,837
SUPPLEMENTAL CASH FLOW INFORMATION:			
Cash paid for interest	\$ 1,776	\$ 1,776	\$ --
NON-CASH STOCK ACTIVITY:			
Conversion of note payable to preferred stock	\$ 150,000	\$ 150,000	\$ --
NON-CASH FINANCING ACTIVITY:			
Equipment capital leases	\$ 146,000	\$ 146,000	\$ --

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

MICROOPTICAL DEVICES, INC.

(A Development Stage Corporation)

NOTES TO FINANCIAL STATEMENTS

FOR THE PERIOD FROM INCEPTION (AUGUST 3, 1995)
THROUGH DECEMBER 31, 1996
AND FOR THE YEAR ENDED DECEMBER 31, 1996
AND FOR THE PERIOD FROM INCEPTION THROUGH DECEMBER 31, 1995

(1) ORGANIZATION AND SUMMARY OF SIGNIFICANT RISK FACTORS:

MicroOptical Devices, Inc. (the "Company" or "MODE"), was incorporated under the laws of the State of Delaware on August 3, 1995 for the purpose of developing technology and manufacturing of advanced optoelectronic components and systems for specific use in commercial identification and communications markets.

The Company funded its marketing, development and operational activities to date from the proceeds of two equity offerings. Since inception, the Company has devoted substantially all of its efforts and resources to marketing and development of its technology and remains in the development stage. Ultimately, the Company's ability to achieve profitable operations is dependent, in large part, upon making the transition to a manufacturing company.

On July 16, 1996, an amendment to the Certificate of Incorporation of MODE (the "Amendment") was filed, which (a) increased the total number of its common shares, which the Company is authorized to issue from two million to four million, and (b) increased the total number of authorized shares of its Convertible Preferred Stock, from four thousand to two million (222,222 shares of Series A Convertible Preferred Stock and 1,777,778 shares of Series B Convertible Preferred Stock).

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Accounting Basis - The financial books and records of the Company are maintained on the accrual basis of accounting. As a development stage company, cumulative results of operations from inception are presented.

Use of Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash Equivalents - For the purposes of presenting cash flows, cash and cash equivalents represent cash balances and highly liquid investments with original maturities of less than 90 days.

Inventory - Inventories are stated at the lower of standard cost (which approximates actual cost using the first-, first-out method) or market and consist of raw materials.

Property and Equipment - Equipment is stated at cost, net of accumulated depreciation. Depreciation is computed on the straight-line method based on estimated useful lives ranging from three to five years. Leasehold improvements are amortized using the straight-line method over the shorter of the estimated useful life of the asset or the remaining term of the lease.

Organization Costs - Costs to organize the Company are capitalized and amortized on a straight-line basis over five years.

Research and Development - The costs of research and development activities are charged to expense as incurred.

Fair Value of Financial Instruments - The carrying value of all financial instruments approximates fair market value at December 31, 1996 and 1995.

Stock-Based Compensation - The Company accounts for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25 ("APB Opinion No. 25"), "Accounting for Stock Issued to Employees," and related Interpretations. Accordingly, compensation cost for stock options is measured as the excess, if any, of the quoted market price of the Company's stock at the date of the grant over the amount an employee must pay to acquire the stock. Financial Accounting Standards Board Statement No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"), was issued in 1995 and the Company has adopted the disclosure requirements of SFAS 123 (see Note 6).

Income Taxes - MODE accounts for income taxes using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Under Financial Accounting Standards Board Statement No. 109, "Accounting for Income Taxes" ("SFAS No. 109"), the effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date.

Net Loss Per Share - Net loss per share for each period was calculated based upon the weighted average number of Common Stock outstanding during each period, using post split shares resulting from the three-for-one stock split effective August 1996. Common Stock equivalents were excluded in the calculation of weighted average shares outstanding since their inclusion would have had an anti-dilutive effect.

Accounting Pronouncement Not Yet Adopted - The Financial Accounting Standards Board issued SFAS No. 128, "Earnings Per Share," which is effective for calendar years beginning after December 15, 1997 at which time it will require restatement of prior years earnings per share calculations. Management has not yet determined the effect, if any, of SFAS No. 128 on the financial statements.

(3) PROPERTY AND EQUIPMENT:

Property and equipment at December 31 by major classification are as follows:

	1996	1995
Manufacturing equipment	\$ 1,781,487	\$ -
Leasehold improvements	570,397	-
Furniture and fixtures	68,529	5,443
	-----	-----
	2,420,413	5,443
Less accumulated depreciation and amortization	31,460	323
	-----	-----
	\$ 2,388,953	\$ 5,220
	=====	=====

(4) CAPITAL LEASES:

In 1996, the Company financed certain manufacturing equipment, leasehold improvements, and furniture and fixtures under a Master Equipment Lease Agreement ("the Lease") expiring June 30, 1997, which provides for financing of up to \$2,000,000. The Company had only nominal borrowings under the Lease at December 31, 1996. The capital leases have terms of 42 months and are collateralized by manufacturing equipment. The transactions under the Lease are accounted for as a financing, whereby the property remains on the books and continues to be depreciated and amortized. Obligations under capital leases representing the proceeds was recorded, and is reduced based on payments under capital lease obligations. All items are sold and leasedback at original purchase price, therefore no gain or loss was recorded on such transactions during 1996.

At December 31, 1996, approximately \$146,000 of manufacturing equipment was under capital lease. The future minimum lease payments for assets under capital lease and the present value of the net minimum lease payments at December 31, 1996, are as follows:

Fiscal year	Minimum payment
-----	-----
1997	\$ 49,964
1998	49,964
1999	49,964
2000	20,575

Total minimum lease payments	170,467
Less amount representing interest	24,143

Present value of net minimum lease payments	146,324
Less current portion	38,676

	\$107,648
	=====

In connection with the Lease, the Company issued a warrant to purchase 208,695 shares of MODE's Series B convertible preferred stock, on a post stock split basis (see Note 5), exercisable at any time for a period of up to ten years ending on August 21, 2006 at a price of \$.77 per share. The warrant may terminate sooner in connection with certain significant corporate events.

(5) STOCKHOLDERS' EQUITY:

Effective August, 1996, the Company declared a stock split on all existing preferred and common shares at a ratio of three to one. The accompanying financial statements for the year ended December 31, 1996, have been adjusted to reflect the stock split.

On July 17, 1996, the Company issued 4,076,088 shares, on a post stock split basis, of its Series B Convertible Preferred Stock ("Series B"). Each share of Series B, which has a liquidation preference of \$.77, is convertible to one share of the Company's Common Stock and earns dividends at the rate declared for each share of Common Stock. No such dividends have been declared as of December 31, 1996. Terms of the agreements with Preferred Shareholders require the Company to comply with terms similar to those specified in the Series A issuance.

As specified in the Series A Convertible Preferred Stock ("Series A") issuance, the Series A Preferred Stockholder purchased \$150,000 of Convertible Promissory Notes (the "Notes"), during 1996. The Notes, which bore interest at the prime rate compounded monthly, were convertible at a price equal to the per share purchase price of the Series B stock issuance. On July 17, 1996, the Notes and the related interest of \$1,169 were converted to Series B convertible preferred stock in conjunction with the Series B stock issuance.

On August 29, 1995, the Company issued 666,666 shares, on a post stock split basis, of its Series A. Each share of Series A, which has a liquidation preference of \$.3, is convertible to one share of the Company's Common Stock and earns dividends at the rate declared for each share of Common Stock. No such dividends have been declared as of December 31, 1996. An agreement with the Series A Preferred Stockholder requires the Company to, among other items, maintain keyman life insurance on certain key employees, and obtain the Preferred Stockholders' approval to make key changes in the operations of the Company.

On August 3, 1995, the Company issued 3,000,000 shares, on a post stock split basis, of its Common Stock at a par value of \$.001 per share.

(6) DEFERRED COMPENSATION PLAN:

In July 1996, the Company adopted the 1996 Stock Option Plan (the "Plan"), where options granted to an employee are qualified "incentive stock options" under the Internal Revenue Code and options granted to a non-employee are "non-statutory stock options", for which 1,800,000 shares were reserved, on a post stock split basis. The Company

accounts for options granted to employee's under this Plan in accordance with APB Opinion No. 25, under which no compensation cost has been recognized. The compensation costs for the Plan determined consistent with SFAS 123 is immaterial. Options granted to non-employee's under this Plan are accounted for in accordance with the provisions of SFAS 123.

The Company has granted options on 645,500 shares through December 31, 1996. Under the Plan, the option exercise price equals the common stocks market price on date of grant. All options are immediately exercisable and expire ten years from date of grant. The options granted to MODE's founders are subject to repurchase by the Company, at the original exercise price, upon the cessation of service prior to vesting in such shares. Such shares vest in a series of 72 successive equal monthly installments over a six year period, however, such vesting shall accelerate to 48 successive equal monthly installments upon the Company meeting performance milestones as provided for by the Board. At December 31, 1996, the Company has achieved two out of five of its performance measures. All other shares vest at the rate of 25 percent of the shares upon the optionee's continued service to the Company through the initial vesting date, with the remaining shares vesting in a series of 36 successive equal monthly installments. The vesting period accelerates in connection with certain significant corporate events.

A summary of the status of the Company's option Plan at December 31, 1996, and changes during the year then ended is presented in the table and narrative below:

	Shares	Weighted Average Exercise Price
	-----	-----
Outstanding at beginning of year	-	\$ -
Granted	645,500	.077
Exercised	-	-
Forfeited	-	-
Expired	-	-
	=====	
Outstanding at end of year	645,500	\$.077
	=====	
Exercisable at end of year	645,500	\$.077
Weighted average fair value of options granted during the year	\$.02	

The options outstanding at December 31, 1996, have a weighted average remaining contractual life of 9.5 years.

The fair value of each option grant is estimated on the date of grant using Black-Scholes option pricing model with the following average assumptions used: risk-free interest rate of 6.65%; expected lives of ten years; a divided yield of 0%; and expected volatility of .01%.

(7) INCOME TAXES:

MODE had no income tax expense and there were no income taxes currently payable for the year ended December 31, 1996 and period ended December 31, 1995. Deferred income taxes at December 31, 1996 and 1995, are offset by a valuation allowance as follows:

	1996	1995
Deferred tax asset:		
Net operating loss	\$ 16,197	\$ 14,000
Deferred revenue	48,750	-
	64,947	14,000
Valuation allowance	(40,926)	(14,000)
	24,021	-
Deferred tax liability:		
Depreciation and amortization	(22,535)	-
Other	(1,486)	-
	(24,021)	-
Net deferred taxes	\$ -	\$ -

The Company has established a valuation allowance for the entire deferred tax asset due to the uncertainty of future earnings (see Note 1). A net operating loss carry forward of \$46,214 is available to offset future taxable income for the next fifteen years.

(8) COMMITMENTS AND CONTINGENCIES:

Technology Assistance and Royalty Agreement

On February 22, 1996, the Company entered into a technical assistance and royalty agreement (as subsequently amended) in which the Company agreed to further develop laser technology in return for eight years of co-exclusive rights to five existing patents covering this technology. The Company is required to pay \$7,500 in 1997, plus royalty payments beginning in 1998 of 1.5% to 2.5%, subject to minimum annual payments ranging from up to \$50,000 over the life of the patents provided that the technology is developed and the related products are manufactured in Albuquerque, New Mexico. In the event that the Company fails to develop or abandons development of this technology, all rights to the technology become nonexclusive. The Company paid \$7,500 under this Agreement in 1996.

In October, 1996, the Company signed an agreement for research and development, which expires March 31, 1998. Under the Agreement, the Buyer paid the Company \$95,000 for non-recurring engineering expense, plus all applicable fees and taxes, which

payment is non-refundable. Buyer will pay MODE the balance of the payment upon demonstration of feasibility.

Keyman Life Insurance

The Company is beneficiary to \$500,000 of term life insurance for each of its two founders.

Licensing Agreement

On March 21, 1996, the Company signed a license agreement (the "Agreement") with a major manufacturer in the identification market (the "Manufacturer"). Under the Agreement, the Manufacturer paid the Company a \$500,000 license fee (the "Payment") plus all applicable gross receipts tax that the Company is required to pay thereon.

The Manufacturer retains exclusive rights to use and sell any products or components which the Company develops for the Manufacturer's portion of the identification market (the "Product") for a limited period of time. After the exclusive rights period expires, the Company is required to first offer these Products, if achieved to the Manufacturer under similar sales terms as the Products are offered to any other party for a limited period of time.

Within approximately one year of the receipt of the Payment, the Company and the Manufacturer will negotiate in good faith to enter into a supply agreement for the Product, if achieved. If no agreement is reached, then the Company can elect to sell the Product, if achieved to the Manufacturer for an additional license fee and, for each Product sold, the cost of the Product plus a specified factor for overhead and profit.

Should the Company fail to pursue development or sell the Product to the Manufacturer, the Manufacturer will be granted certain nonexclusive sub-licensing rights.

At December 31, 1996, \$325,000 has been earned under the terms of this agreement.

Leased Property

The Company leases its facility under an operating lease with a term of three years. Rental expense under operating leases was \$18,214 for the year end December 31, 1996. There was no rental expense incurred for the period from inception through December 31, 1995. The minimum future lease commitments for all operating leases are \$34,332 for each of the years ending December 31, 1997 and 1998 and \$17,166 for year end December 31, 1999.

(9) SUBSEQUENT EVENT:

Purchase and Supply Agreement

On February 14, 1997, the Company signed a purchase and supply contract (the "Contract"). Under the Contract, MODE established the terms and conditions controlling potential sales of vertical-cavity surface-emitting laser ("VCSEL") chips, devices and arrays in the event they occur. The initial term of the Contract is five years, and can be canceled by either party upon written notice 360 days prior to the end of the initial term or any subsequent term. The Contract also may terminate prior to the five year period under certain circumstances. Products sold under the agreement are subject to a warranty period not to exceed the earlier of 18 months from the date the product is delivered to customer, or one year from the date of delivery by customer to its end-users, or one year from the date the products are placed in service.

Sale/Leaseback of Assets

Subsequent to year end, the Company financed an additional \$1,850,000 of its property via a sale-leaseback transaction with a leasing company under the terms of the Master Equipment Lease Agreement (see Note 4).

(b) Pro Forma Financial Information:

EMCORE CORPORATION
PRO FORMA CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following unaudited pro forma consolidated balance sheet and the unaudited pro forma consolidated statement of operations (together the "pro forma financial statements") are based on the historical financial statements of Emcore Corporation ("Emcore") and MicroOptical Devices, Inc. ("MODE"), adjusted to give the effect to the acquisition of MODE by Emcore. The unaudited pro forma balance sheet assumes that the acquisition of MODE by Emcore occurred on September 30, 1997, and the unaudited pro forma consolidated statement of operations assumes that the acquisition of MODE by Emcore occurred as of October 1, 1996.

The pro forma financial information reflects the purchase method of accounting for the acquisition of MODE using estimated purchase accounting adjustments, based upon preliminary valuations and is subject to post-closing adjustments. The accompanying unaudited pro forma information does not give effect to any cost savings that may be realized as a result of the integration of Emcore and MODE, or to any changes in the revenues of the combined entity, resulting from such integration.

The accompanying unaudited pro forma financial information should be read in conjunction with the Company's historical financial statements and the notes thereto included in its Form S-1 dated March 6, 1997 and the MODE historical financial statements and the notes thereto included herein. Such unaudited pro forma financial information does not purport to be indicative of the results of operations of Emcore in the future or what its financial position and results of operation would have been had the acquisition occurred at the dates indicated above.

EMCORE CORPORATION
PRO FORMA CONSOLIDATED BALANCE SHEET (UNAUDITED)
FOR THE YEAR ENDED SEPTEMBER 30, 1997

	EMCORE	HISTORICAL MODE
ASSETS		
Current Assets		
Cash and equivalents	\$3,653,145	\$643,542
Restricted cash	312,500	
Accounts receivable, net	8,439,704	173,710
Accounts receivable - related party	2,500,000	
Inventories, net	7,185,626	131,931
Prepaid expenses and other current assets	120,393	22,314

Total current assets	22,211,368	971,497

Property and equipment, net	16,797,833	2,405,541
Other assets, net	453,608	2,247

Total assets	39,462,809	3,379,285
	=====	
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	4,050,216	70,589
Accrued expenses	3,867,589	755,568
Advance billings	1,998,183	
Unearned service revenue	124,279	
Capitalized lease obligations - current	15,030	91,664

Total current liabilities	10,055,297	917,821

Subordinated notes, net	7,499,070	
Capitalized lease obligations, net of current portion	77,870	1,753,994
Stockholders' equity		
Common stock	45,816,774	2,575
Preferred Stock - Series A		181,818
Preferred Stock - Series B		3,076,456
In process research and development		
Accumulated deficit	(23,777,658)	(2,553,379)

	22,039,116	707,470
Notes receivable from warrant issuances and stock sales	(208,544)	

Total stockholders' equity	21,830,572	707,470

Total liabilities and shareholders' equity	\$39,462,809	\$3,379,285
	=====	

		PRO FORMA ADJUSTMENTS	COMBINED
ASSETS			
Current Assets			
Cash and equivalents	(2)	(\$500,000)	\$3,796,687
Restricted cash			312,500
Accounts receivable, net			8,613,414
Accounts receivable - related party			2,500,000
Inventories, net			7,317,557
Prepaid expenses and other current assets			142,707

Total current assets		(500,000)	22,682,865

Property and equipment, net			19,203,374
Goodwill	(1)	2,827,784	2,827,784
Other assets, net			455,856

Total assets		2,327,784	45,169,878
			=====
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Accounts payable			4,120,805
Accrued expenses			4,623,157
Advance billings			1,998,183
Unearned service revenue			124,279
Capitalized lease obligations - current			106,694

Total current liabilities			10,973,118

Subordinated notes, net			7,499,070
Capitalized lease obligations, net of current portion			1,831,864
Stockholders' equity			
Common stock	(3)	32,326,379	78,145,728
Preferred Stock - Series A	(3)	(181,818)	
Preferred Stock - Series B	(3)	(3,076,456)	
Accumulated deficit	(3)	2,553,379	
	(4)	(29,293,700)	(53,071,358)

		2,327,784	25,074,370
Notes receivable from warrant issuances and stock sales			(208,544)

Total stockholders' equity		2,327,784	24,865,826

Total liabilities and shareholders' equity		\$2,327,784	\$45,169,878
			=====

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE PRO FORMA FINANCIAL STATEMENTS

EMCORE CORPORATION
PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS (UNAUDITED)
FOR THE YEAR ENDED SEPTEMBER 30, 1997

	EMCORE	HISTORICAL MODE	PRO FORMA ADJUSTMENTS	PRO FORMA COMBINED
Revenue	\$ 47,752,572	\$ 560,648		\$ 48,313,220
Cost of Sales	30,094,015	447,318		30,541,333
	-----			-----
Gross Profit	17,658,557	113,330		17,771,887
	-----			-----
Operating Expenses				
Selling, general and administrative	9,346,329	869,113	(5) \$ 942,595	11,158,037
Research and development	9,001,188	1,791,087		10,792,275
	-----			-----
Operating loss	(688,960)	(2,546,870)	942,595	(4,178,425)
	-----			-----
Other expenses				
Stated interest expense (income), net	519,422	(54,306)		465,116
Imputed warrant interest, non-cash	3,988,390			3,988,390
	-----			-----
Loss before income taxes and extraordinary item	(5,196,772)	(2,492,564)	942,595	(8,631,931)
Provision for income taxes	137,000			137,000
	-----			-----
Net loss before extraordinary item	(5,333,772)	(2,492,564)	942,595	(8,768,931)
Extraordinary item - loss on early retirement of debt	285,595			285,595
	-----			-----
Net loss	\$ (5,619,367)	\$ (2,492,564)	\$ 942,595	\$ (9,054,526)
	=====			=====
Shares used in computation of net loss	5,029,806		(6) 1,692,963	6,722,769
	=====			=====
Net loss per share before extraordinary item	\$ (1.06)			\$ (1.30)
	=====			=====
Net loss per share	\$ (1.12)			\$ (1.35)
	=====			=====

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THESE PRO FORMA FINANCIAL STATEMENTS

Pro Forma Notes:

Unaudited Pro Forma Balance Sheet

- (1) Emcore acquired MODE on December 5, 1997, in exchange for (i) the issuance of 1,461,866 shares of common stock, and (ii) the assumption of (x) up to 200,966 common stock purchase options (exercise prices ranging from \$0.43 to \$0.59) and (y) 47,118 common stock purchase warrants (exercise prices ranging from \$4.32 to \$5.92). The transaction purchase price amounted to approximately \$32,900,000, including approximately \$500,000 of direct acquisition costs. The Company's common stock was valued based upon the average closing price of the Company's common stock for the five days before and after the announcement of the acquisition.

The purchase price was allocated to the assets acquired (approximately \$3,379,000) and liabilities assumed (approximately \$2,672,000), based upon the fair value at the date of acquisition. In addition, the Company recorded a one-time write-off of approximately \$29,294,000 relating to purchased in-process research and development. Goodwill of approximately \$2,828,000 was recorded as a result of the acquisition.

- (2) To reflect direct acquisition costs of approximately \$500,000.
- (3) Adjustment to eliminate MODE's historical capital structure.
- (4) To reflect the one-time-write-off of \$29,293,700 relating to purchased in-process research and development.

Unaudited Pro Forma Statement of Operations

- (5) To reflect the amortization of goodwill over a period of three years.
- (6) To reflect the pro forma effect of the shares and common stock purchase options and warrants issued in connection with the acquisition of MODE by Emcore on the weighted average common shares outstanding.

The pro forma statement of operations for the year ended September 30, 1997, does not reflect the non-recurring write-off of the purchased in-process research and development.

SIGNATURES

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

Emcore Corporation

(Registrant)

By: /s/ Thomas G. Werthan

Name: Thomas G. Werthan

Title: Chief Financial Officer and Secretary

Dated: December 23, 1997

INDEX TO EXHIBITS

Exhibit Number	Description
2*	Agreement and Plan of Merger, dated as of December 5, 1997, among Emcore, the Merger Subsidiary, MODE and the Principal Stockholders.
4*	Registration Rights Agreement, dated as of December 5, 1997, relating to the shares issued pursuant to the Merger Agreement.
10.1*	Escrow Agreement, dated as of December 5, 1997, among Emcore, the Principal Stockholders and the Escrow Agent.
10.2*	Employment Agreement, dated as of December 5, 1997, between Emcore and Robert Bryan.
10.3*	Employment Agreement, dated as of December 5, 1997, between Emcore and Thomas Brennan.
10.4	Consent and Amendment Agreement, dated as of December 2, 1997, between First Union National Bank and Emcore.
10.5	Unconditional Guaranty, dated as of December 5, 1987, among Emcore, MODE and First Union National Bank.
10.6	Security Agreement, dated as of December 5, 1997, between MODE and First Union National Bank.
23	Consent of Arthur Andersen, LLP, independent auditors.
99*	Press Release issued December 5, 1997.

* Previously filed

CONSENT AND AMENDMENT AGREEMENT

This CONSENT AND AMENDMENT AGREEMENT, dated as of December 2, 1997 (the "Amendment") is made by and between First Union National Bank (the "Bank") and EMCORE Corporation (the "Borrower"). All capitalized terms used herein and not otherwise defined herein shall have the meanings set forth in the Loan Agreement (as such term is defined below).

W I T N E S S E T H :

WHEREAS, on March 31, 1997, the Borrower and the Bank entered into a Revolving Loan and Security Agreement (the "Loan Agreement") pursuant to which the Bank agreed to make revolving loans to the Borrower, in accordance with the terms therewith; and

WHEREAS, the terms and conditions of the Loan Agreement prohibit the Borrower from creating any subsidiaries or acquiring the assets or the stock of another entity without the prior written consent of the Bank; and

WHEREAS, the Borrower is about to form a wholly-owned subsidiary, EMKR Acquisition Corporation ("EMKR") which will merge with and into MicroOptical Devices, Inc., a Delaware corporation ("MODE") (the "Merger Transaction"); and

WHEREAS, the Bank has agreed to consent to the Merger Transaction and waive any defaults under Sections 10.11, 10.17, 10.20 and 11.1(c) of the Loan Agreement which resulted from the consummation of the Merger Transaction, provided that the Loan Agreement is amended as set forth herein and that MODE executes and delivers a Guaranty and Security Agreement in favor of the Bank; as more particularly set forth herein.

NOW THEREFORE, in consideration of the mutual promises and covenants herein and in any other document or instrument executed and delivered in connection herewith, the parties hereto agree as follows:

1. Amendments to the Loan Agreement. On the Effective Date (as defined below) the Loan Agreement is hereby deemed amended as follows:

- (a) The following definitions are hereby added to SECTION 1:
 - "Guarantor" means MicroOptical Devices, Inc.
 - "Guaranty" means the Guaranty dated December 3, 1997 made by Guarantor in favor of the Bank with respect to the obligations of the Borrower to the Bank, as the same may be modified, amended, or supplemented from time to time.
 - "Security Agreement" means the Security Agreement dated December 3, 1997 made by the Guarantor in favor of the Bank as

the same may be modified, amended or supplemented from time to time.

(b) The term "Loan Documents" as defined in SECTION 1 is amended to include the Guaranty and the Security Agreement.

(c) Clause (A) of the definition of "Fixed Charge Coverage Ratio" set forth in Section 1 is hereby amended in its entirety to read as follows: "(A) EBIT for the period of determination to ..."

(d) Section 2.2 is hereby amended to include the following additional paragraph:

Notwithstanding anything to the contrary set forth herein, the Borrower agrees that it shall not be permitted to borrow hereunder (and the Bank shall not honor any Borrowing Notice received) to the extent any proposed Revolving Loan would, when added to the aggregate amount of the already outstanding Revolving Loans, increase the amount of Obligations outstanding hereunder to an amount equal to or in excess of \$5,000,000 unless and until, the Borrower has granted in favor of the Bank a first priority perfected security interest and Lien in all of the Borrower's right, title and interest in and to the Warrant Notes, the Note Stock Pledge Agreements and the Warrant Note Collateral, in form and substance satisfactory to the Bank.

(e) Section 8.12 is hereby amended to include the following phrase at the end of the sentence "except for Guarantor."

(f) The word "not" is hereby inserted after the word "is" and before the word "an" in Section 8.17.

(g) The lead-in of SECTION 10 is hereby amended in its entirety to read as follows:

The Borrower covenants and agrees that so long as the Revolving Loan Commitment remains in effect, there are any Revolving Loans outstanding or any other obligation remains unpaid, the Borrower shall and shall cause each of its Subsidiaries to:

(h) In all of SECTION 10 except for Sections 10.1, 10.2, 10.9, 10.13, 10.14, 10.15, 10.16, 10.24, 10.25 and 10.27. All references to "Borrower" shall be deemed references to "it" such that the covenants will apply to the Borrower and each of its Subsidiaries. In addition to the foregoing, with respect to any covenant in SECTION 10 which contains a monetary limitation, compliance shall be determined on a consolidated basis, i.e., the Borrower and all its Subsidiaries.

(i) Section 10.1 of the Loan Agreement is amended by adding the following sentence to the end of the Section:

All financial statements delivered by the Borrower shall include financial statements of its Subsidiaries on a consolidating basis.

(j) Section 10.2 is amended to include the following phrase at the end of the sentence: "and to loan to Guarantor up to an amount not exceeding \$2,000,000 at any time outstanding."

(k) An additional proviso is hereby added to Section 10.4 at the end of the sentence as follows:

and provided, further, that the financial accommodations to the Guarantor permitted under Section 10.26 shall not be deemed to be in violation of this covenant.

(l) Section 10.5 should begin as follows: "The Borrower and all of its Subsidiaries shall"

(m) Sections 10.14 (a) and (b) of the Loan Agreement are modified as follows: each reference to "Borrower shall" is hereby amended to read "Borrower and its Subsidiaries, on a consolidated basis, shall".

(n) Section 10.20 should begin: "The Borrower and each of its Subsidiaries shall".

(o) Section 10.21 is amended to include the following language at the end of the Section:

; provided, however, that all Subsidiaries may declare and pay dividends to the Borrower.

(p) The first sentence of Section 10.26 is amended to include the following phrase at the end of such sentence:

except that the Borrower may (i) make financial accommodations to the Guarantor, however characterized, whether as loans, notes payable, accounts receivable, advances or otherwise, in an amount not to exceed \$2,000,000 at any time outstanding, and (ii) accept the Notes Secured by Stock Pledge Agreements dated on or about December 4, 1997 made in its favor by (1) AER 1997 Trust (in the principal amount of \$3,127,560.72), (2) Gallium Enterprises Inc. (in the principal amount of \$2,632,338.48, (3) Howard R. Curd (in the principal amount of \$566,067.36), (4) Howard F. Curd (in the principal amount of \$566,067.36) and (5) Reuben F. Richards, Jr. (in the principal amount of \$566,067.36) (collectively, the "Warrant Notes").

(q) Section 10.27 is hereby added to SECTION 10:

10.27 Warrant Notes, etc. The Borrower hereby agrees that it will not create, assume or permit to exist any Lien upon or otherwise transfer any of its right, title and interest in and to (i) the Warrant Notes, (ii) the Stock Pledge Agreements dated on or about December 4, 1997 executed and delivered by each of the makers of the Warrant Notes in favor of the Borrower (collectively, the "Note Stock Pledge Agreements") and (iii) the "Collateral" (as such quoted term is defined in the Note Stock Pledge Agreements, referred to hereinafter as the "Warrant Note Collateral") except in favor of the Bank as set forth herein and the Liens described in clause (iii) of Section 10.5.

The Borrower further agrees not to agree to any amendments or other modifications to the Warrant Notes or the Note Stock Pledge Agreements.

(r) Each Event of Default enumerated in Sections 11.1(b), (d), (e), (f), (g) and (h) shall apply to the Guarantor as if the term "Guarantor" appeared each time the term "Borrower" appears in those Sections.

(s) The phrase "or 10.27" is hereby added after "10.26" in Section 11.1(c).

(t) The following subsection 11.1(e) is hereby added to Section 11.1:

Guarantor - If (i) Guarantor fails to comply with any payment obligation set forth in the Guaranty or if Guarantor fails to comply with any of the covenants or other agreements set forth in the Guaranty or any other Loan Document to which it is a party beyond any applicable grace period provided for therein, or (ii) any representation or warranty made or deemed made by Guarantor in the Guaranty or any other Loan Document to which it is a party or which is contained in any exhibit, schedule or any other document or other statement furnished at any time under or in connection with the Guaranty or any of the other Loan Documents shall prove to have been incorrect in any material respect on or as of the date made or deemed made, or (iii) if Guarantor shall terminate, purport to terminate or take any steps which have the effect of decreasing its liability under the Guaranty.

2. The Bank shall be deemed to have (i) given its consent to the Merger Transaction, (ii) waived any Defaults or Events of Default the Merger Transaction created under Sections 10.11, 10.17, 10.20 and 11.1(c) of the Loan Agreement and (iii) agreed to the amendments to the Loan Agreement set forth herein as of the date all of the following conditions have been satisfied (the "Effective Date"):

(a) The Bank shall have received the original Guaranty and the Security Agreement (each in form and substance satisfactory to the Bank) executed by MODE together with UCC-1 Financing Statements in form for recording with the appropriate jurisdictions, naming MODE, as Debtor and the Bank, as Secured Party (the "MODE Documents");

(b) The Bank shall have received (i) certified copies of all corporate action taken by MODE to authorize the execution, delivery and performance, in accordance with their respective terms, of the MODE Documents and any other documents required or contemplated hereunder or thereunder; (ii) a certificate of incumbency with respect to the officers of MODE authorized and directed to execute and deliver the MODE Documents and other documents required or contemplated thereunder; (iii) certified copies of the articles of incorporation and by-laws of MODE, amended to the date hereof; and (iv) certificate(s) of good standing for MODE from the appropriate authority in its jurisdiction of incorporation and in each other jurisdiction in which it is required to qualify to do business;

(c) The Bank shall have received a Certificate of the Borrower, executed by the Chief Financial Officer of the Borrower and dated the Effective Date that (i) no Default or Event of Default has occurred and is continuing and (ii) the representations and warranties of the Borrower contained in the Loan Documents are true and correct as of such date; and

(d) The Bank shall have received the opinion of MODE's counsel covering the MODE Documents, in form and substance satisfactory to the Bank and its counsel.

3. The Loan Agreement is, and shall continue to be, in full force and effect and is hereby ratified and confirmed in all respects except that after giving effect to this Amendment all references in the Loan Agreement to "this Agreement," "hereto," "hereof," "hereunder" or words of like import referring to the Loan Agreement shall mean the Loan Agreement, as amended; and all references in the other Loan Documents to the Loan Agreement shall mean the Loan Agreement, as amended hereby.

4. This Amendment may be executed in counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument.

5. This Amendment, including the validity thereof and the rights and obligations of the parties hereunder, shall be construed in accordance with and governed by the laws of the State of New Jersey.

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IN WITNESS WHEREOF, each of the parties hereto has caused this Consent and Amendment Agreement to be duly executed and delivered on this 2nd day of December, 1997.

BORROWER:

EMCORE CORPORATION

By: /s/ Reuben F. Richards, Jr.

Name: Reuben F. Richards, Jr.

Title: President & CEO

BANK:

FIRST UNION NATIONAL BANK

By: /s/ William E. Johnston

Name: William E. Johnston

Title: Vice President

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EXECUTION

UNCONDITIONAL GUARANTY

December 5, 1997

EMCORE Corporation
394 Elizabeth Avenue
Somerset, New Jersey 08873
(Individually and collectively "Borrower")

MicroOptical Devices, Inc.
5601-C Midway Park Place, N.E.
Albuquerque, NM 87019
(Individually and collectively "Guarantor")

First Union National Bank
1889 Highway 27
Edison, New Jersey 08817
(Hereinafter referred to as "Bank")

To induce Bank to make, extend or renew loans, advances, credit, or other financial accommodations to or for the benefit of Borrower, and in consideration of loans, advances, credit, or other financial accommodations made, extended or renewed to or for the benefit of Borrower, Guarantor hereby absolutely, irrevocably and unconditionally guarantees to Bank and its successors, assigns and affiliates the timely payment and performance of all liabilities and obligations of Borrower to Bank and its affiliates, including, but not limited to, all obligations under any notes, loan agreements, security agreements, letters of credit, swap agreements (as defined in 11 U.S. Code ss. 101), instruments, accounts receivable, contracts, drafts, leases, chattel paper, indemnities, acceptances, repurchase agreements, overdrafts, and the Loan Documents defined below, however and whenever incurred or evidenced, whether primary, secondary, direct, indirect, absolute, contingent, due or to become due, now existing or hereafter contracted or acquired, and all modifications, extensions or renewals thereof, including without limitation all principal, interest, charges, and costs and expenses incurred thereunder (including attorneys' fees and other costs of collection incurred, regardless of whether suit is commenced) (collectively, the "Guaranteed Obligations").

Guarantor further covenants and agrees:

GUARANTOR'S LIABILITY. This Guaranty is a continuing and unconditional guaranty of payment and performance and not of collection. The parties to this Guaranty are jointly and severally obligated hereunder. This Guaranty does not impose any obligation on Bank to extend or continue to extend credit or otherwise deal with Borrower at any subsequent time. This Guaranty shall continue to be effective or be reinstated, as the case may be, if at any time any payment of the Guaranteed Obligations is rescinded, avoided or for any other reason must be returned by Bank, and the returned payment shall remain payable as part of the Guaranteed Obligations, all as though such payment had not been made. Except to the extent the provisions of this Guaranty give the Bank additional rights, this Guaranty shall not be deemed to supersede or replace any other guaranties given to Bank by Guarantor; and the obligations guaranteed hereby shall be in addition to any other obligations guaranteed by Guarantor pursuant to any other agreement of guaranty given to Bank and other guaranties of the Guaranteed Obligations.

TERMINATION OF GUARANTY. Guarantor may terminate this Guaranty by written notice, delivered personally to or received by certified or registered United States Mail by an authorized officer of the Bank at the address for notices provided herein. Such termination shall be effective with respect to Guaranteed Obligations arising more than 15 days after the date such written notice is received by said Bank officer. Guarantor may not terminate this Guaranty as to Guaranteed Obligations (including any subsequent extensions, modifications or

compromises of the Guaranteed Obligations) then existing, or to Guaranteed Obligations arising subsequent to receipt by Bank of said notice if such Guaranteed Obligations are a result of Bank's obligation to make advances pursuant to a commitment entered into prior to expiration of the 15 day notice period, or are a result of advances which are necessary for Bank to protect its collateral or otherwise preserve its interests. Termination of this Guaranty by any single Guarantor will not affect the existing and continuing obligations of any other guarantor hereunder.

APPLICATION OF PAYMENTS, BANK LIEN AND SET-OFF. Monies received from any source by Bank for application toward payment of the Guaranteed Obligations may be applied to such Guaranteed Obligations in any manner or order deemed appropriate by Bank. Except as prohibited by law, Guarantor grants Bank a security interest in all of Guarantor's accounts maintained with Bank and any of its affiliates (collectively, the "Accounts"). If a Default occurs, Bank is authorized to exercise its right of set-off or to foreclose its lien against any obligation of Bank to Guarantor including, without limitation, all Accounts or any other debt of any maturity, without notice.

CONSENT TO MODIFICATIONS. Guarantor CONSENTS AND AGREES THAT BANK MAY FROM TIME TO TIME, IN ITS SOLE DISCRETION, WITHOUT AFFECTING, IMPAIRING, LESSENING OR RELEASING THE OBLIGATIONS OF THE GUARANTOR HEREUNDER: (a) extend or modify the time, manner, place or terms of payment or performance and/or otherwise change or modify the credit terms of the Guaranteed Obligations; (b) increase, renew, or enter into a novation of the Guaranteed Obligations; (c) waive or consent to the departure from terms of the Guaranteed Obligations; (d) permit any change in the business or other dealings and relations of Borrower or any other guarantor with Bank; (e) proceed against, exchange, release, realize upon, or otherwise deal with in any manner any collateral that is or may be held by Bank in connection with the Guaranteed Obligations or any liabilities or obligations of Guarantor; and (f) proceed against, settle, release, or compromise with Borrower, any insurance carrier, or any other person or entity liable as to any part of the Guaranteed Obligations, and/or subordinate the payment of any part of the Guaranteed Obligations to the payment of any other obligations, which may at any time be due or owing to Bank; all in such manner and upon such terms as Bank may deem appropriate, and without notice to or further consent from Guarantor. No invalidity, irregularity, discharge or unenforceability of, or action or omission by Bank relating to any part of, the Guaranteed Obligations or any security therefor shall affect or impair this Guaranty.

WAIVERS AND ACKNOWLEDGMENTS. Guarantor WAIVES AND RELEASES THE FOLLOWING RIGHTS, DEMANDS, AND DEFENSES Guarantor may have with respect to Bank and collection of the Guaranteed Obligations: (a) promptness and diligence in collection of any of the Guaranteed Obligations from Borrower or any other person liable thereon, and in foreclosure of any security interest and sale of any property serving as collateral for the Guaranteed Obligations; (b) any law or statute that requires that Bank make demand upon, assert claims against, or collect from Borrower or other persons or entities, foreclose any security interest, sell collateral, exhaust any remedies, or take any other action against Borrower or other persons or entities prior to making demand upon, collecting from or taking action against Guarantor with respect to the Guaranteed Obligations, including any such rights Guarantor might otherwise have had under Va. Code ss.ss. 49-25 and 49-26, et seq., N.C.G.S. ss.ss. 26-7, et seq., Tenn. Code Ann. ss. 47-12-101, O.C.G.A. ss. 10-7-24 (and any successor statute) and any other applicable law; (c) any law or statute that requires that Borrower or any other person be joined in, notified of or made part of any action against Guarantor; (d) that Bank preserve, insure or perfect any security interest in collateral or sell or dispose of collateral in a particular manner or at a particular time; (e) notice of extensions, modifications, renewals, or novations of the Guaranteed Obligations, of any new transactions or other relationships between Bank, Borrower and/or any guarantor, and of changes in the financial condition of, ownership of, or business structure of Borrower or any other guarantor; (f) presentment, protest, notice of dishonor, notice of default, demand for payment, notice of intention to accelerate maturity, notice of acceleration of maturity, notice of sale, and all other notices of any kind whatsoever; (g) the right to assert against Bank any defense (legal or equitable), set-off, counterclaim, or claim that Guarantor may have at any time against Borrower or any other party liable to Bank; (h) all defenses relating to invalidity, insufficiency, unenforceability, enforcement, release or impairment of Bank's lien on any collateral, of the Loan Documents,

or of any other guaranties held by Bank; (i) any claim or defense that acceleration of maturity of the Guaranteed Obligations is stayed against Guarantor because of the stay of assertion or of acceleration of claims against any other person or entity for any reason including the bankruptcy or insolvency of that person or entity; and (j) the benefit of any exemption claimed by Guarantor. Guarantor acknowledges and represents that it has relied upon its own due diligence in making its own independent appraisal of Borrower, Borrower's business affairs and financial condition, and any collateral; Guarantor will continue to be responsible for making its own independent appraisal of such matters; and Guarantor has not relied upon and will not hereafter rely upon Bank for information regarding Borrower or any collateral.

FINANCIAL CONDITION. Guarantor warrants, represents and covenants to Bank that on and after the date hereof: (a) the fair saleable value of Guarantor's assets exceeds its liabilities, Guarantor is meeting its current liabilities as they mature, and Guarantor is and shall remain solvent; (b) all financial statements of Guarantor furnished to Bank are correct and accurately reflect the financial condition of Guarantor as of the respective dates thereof; (c) since the date of such financial statements, there has not occurred a material adverse change in the financial condition of Guarantor; and (d) there are not now pending any court or administrative proceedings or undischarged judgments against Guarantor, no federal or state tax liens have been filed or threatened against Guarantor, and Guarantor is not in default or claimed default under any agreement.

INTEREST. Regardless of any other provision of this Guaranty or other Loan Documents, if for any reason the effective interest on any of the Guaranteed Obligations should exceed the maximum lawful interest, the effective interest shall be deemed reduced to and shall be such maximum lawful interest, and any sums of interest which have been collected in excess of such maximum lawful interest shall be applied as a credit against the unpaid principal balance of the Guaranteed Obligations.

DEFAULT. If any of the following events occur, a default ("Default") under this Guaranty shall exist: (a) Failure of timely payment or performance of the Guaranteed Obligations or a default or any Event of Default (as such term is defined in the applicable Loan Document) under any Loan Document; (b) A breach of any agreement or representation contained or referred to in the Guaranty, or any of the Loan Documents, or contained in any other contract or agreement of Guarantor with Bank or its affiliates, whether now existing or hereafter arising; (c) The dissolution of, termination of existence of, loss of good standing status by, appointment of a receiver for, assignment for the benefit of creditors of, or the commencement of any insolvency or bankruptcy proceeding by or against, Guarantor or any general partner of or the holder(s) of the majority ownership interests of Guarantor; and/or (d) The entry of any monetary judgment or the assessment against, the filing of any tax lien against, or the issuance of any writ of garnishment or attachment against any property of or debts due Guarantor.

If a Default occurs, the Guaranteed Obligations shall be due immediately and payable without notice. Guarantor shall pay interest on the Guaranteed Obligations from such Default at the highest rate of interest charged on any of the Guaranteed Obligations.

ATTORNEY'S FEES AND OTHER COSTS OF COLLECTION. Guarantor shall pay all of Bank's reasonable expenses incurred to enforce or collect any of the Guaranteed Obligations, including, without limitation, reasonable arbitration, paralegals', attorneys' and experts' fees and expenses, whether incurred without the commencement of a suit, in any suit, arbitration, or administrative proceeding, or in any appellate or bankruptcy proceeding.

SUBORDINATION OF OTHER DEBTS. Guarantor agrees: (a) to subordinate the obligations now or hereafter owed by Borrower to Guarantor ("Subordinated Debt") to any and all obligations of Borrower to Bank now or hereafter existing while this Guaranty is in effect, provided however that Guarantor may receive regularly scheduled principal and interest payments on the Subordinated Debt so long as (i) all sums due and payable by Borrower to Bank have been paid in full on or prior to such date, and (ii) no event or condition which constitutes or which with notice or the lapse of time would constitute an event of default with respect to the

Guaranteed Obligations, shall be continuing on or as of the payment date; (b) Guarantor will place a legend indicating such subordination on every note, ledger page or other document evidencing any part of the Subordinated Debt; and (c) except as permitted by this paragraph, Guarantor will not request or accept payment of or any security for any part of the Subordinated Debt, and any proceeds of the Subordinated Debt paid to Guarantor, through error or otherwise, shall immediately be forwarded to Bank by Guarantor, properly endorsed to the order of Bank, to apply to the Guaranteed Obligations.

MISCELLANEOUS. (a) ASSIGNMENT. This Guaranty and other Loan Documents shall inure to the benefit of and be binding upon the parties and their respective heirs, legal representatives, successors and assigns. Bank's interests in and rights under this Guaranty and other Loan Documents are freely assignable, in whole or in part, by Bank. Any assignment shall not release Guarantor from the Guaranteed Obligations. (b) APPLICABLE LAW; CONFLICT BETWEEN DOCUMENTS. This Guaranty and other Loan Documents shall be governed by and construed under the laws of the state in which office of Bank first shown above is located without regard to that state's conflict of laws principles. If the terms of this Guaranty should conflict with the terms of any commitment letter that survives closing, the terms of this Guaranty shall control. (c) JURISDICTION. Guarantor irrevocably agrees to non-exclusive personal jurisdiction in the state in which the office of Bank first shown above is located. (d) SEVERABILITY. If any provision of this Guaranty or of the other Loan Documents shall be prohibited or invalid under applicable law, such provision shall be ineffective but only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Guaranty or other document. (e) NOTICES. Any notices to Guarantor shall be sufficiently given, if in writing and mailed or delivered to the Guarantor's address shown above or such other address as provided hereunder, and to Bank, if in writing and mailed or delivered to Bank's office address shown above or such other address as Bank may specify in writing from time to time. In the event that Guarantor changes Guarantor's address at any time prior to the date the Guaranteed Obligations are paid in full, Guarantor agrees to promptly give written notice of said change of address by registered or certified mail, return receipt requested, all charges prepaid. (f) PLURAL; CAPTIONS. All references in the Loan Documents to borrower, guarantor, person, document or other nouns of reference mean both the singular and plural form, as the case may be, and the term "person" shall mean any individual, person or entity. The captions contained in the Loan Documents are inserted for convenience only and shall not affect the meaning or interpretation of the Loan Documents. (g) BINDING CONTRACT. Guarantor by execution of and Bank by acceptance of this Guaranty agree that each party is bound to all terms and provisions of this Guaranty. (h) AMENDMENTS, WAIVERS AND REMEDIES. No waivers, amendments or modifications of this Guaranty and other Loan Documents shall be valid unless in writing and signed by an officer of Bank. No waiver by Bank of any Default shall operate as a waiver of any other Default or the same Default on a future occasion. Neither the failure nor any delay on the part of Bank in exercising any right, power, or privilege granted pursuant to this Guaranty and other Loan Documents shall operate as a waiver thereof, nor shall a single or partial exercise thereof preclude any other or further exercise or the exercise of any other right, power or privilege. All remedies available to Bank with respect to this Guaranty and other Loan Documents and remedies available at law or in equity shall be cumulative and may be pursued concurrently or successively. (i) PARTNERSHIPS. If Guarantor is a partnership, the obligations, liabilities and agreements on the part of Guarantor shall remain in full force and effect and fully applicable notwithstanding any changes in the individuals comprising the partnership. The term "Guarantor" includes any altered or successive partnerships, and predecessor partnership(s) and the partners shall not be released from any obligations or liabilities hereunder. (j) LOAN DOCUMENTS. The term "Loan Documents" refers to all documents executed in connection with the Guaranteed Obligations, including, without limitation, the Revolving Loan and Security Agreement dated as of March 31, 1997 ("Loan Agreement") between the Borrower and the Bank together with all of the "Loan Documents" (as such term is defined in the Loan Agreement) and may include, without limitation, commitment letters that survive closing, loan agreements, other guaranty agreements, security agreements, instruments, financing statements, mortgages, deeds of trust, deeds to secure debt, letters of credit and any amendments or supplements (excluding swap agreements as defined in 11 U.S. Code ss. 101).

FINANCIAL AND OTHER INFORMATION. In addition to the other covenants set forth herein and the other Loan Documents, Guarantor shall deliver to Bank such information as Bank may reasonably request from time to time, including without limitation, financial statements and information pertaining to Guarantor's financial condition. Such information shall be true, complete, and accurate.

SECURITY. Guarantor has granted Bank a security interest in the collateral described in the Loan Documents, including, but not limited to, personal property collateral described in that certain Security Agreement dated the date hereof.

ARBITRATION. Upon demand of any party hereto, whether made before or after institution of any judicial proceeding, any dispute, claim or controversy arising out of, connected with or relating to this Guaranty and other Loan Documents ("Disputes") between or among parties to this Guaranty shall be resolved by binding arbitration as provided herein. Institution of a judicial proceeding by a party does not waive the right of that party to demand arbitration hereunder. Disputes may include, without limitation, tort claims, counterclaims, disputes as to whether a matter is subject to arbitration, claims brought as class actions, claims arising from Loan Documents executed in the future, or claims arising out of or connected with the transaction reflected by this Guaranty.

Arbitration shall be conducted under and governed by the Commercial Financial Disputes Arbitration Rules (the "Arbitration Rules") of the American Arbitration Association (the "AAA") and Title 9 of the U.S. Code. All arbitration hearings shall be conducted in the city in which the office of Bank first stated above is located. The expedited procedures set forth in Rule 51 et seq. of the Arbitration Rules shall be applicable to claims of less than \$1,000,000.00. All applicable statutes of limitation shall apply to any Dispute. A judgment upon the award may be entered in any court having jurisdiction. The panel from which all arbitrators are selected shall be comprised of licensed attorneys. The single arbitrator selected for expedited procedure shall be a retired judge from the highest court of general jurisdiction, state or federal, of the state where the hearing will be conducted or if such person is not available to serve, the single arbitrator may be a licensed attorney. Notwithstanding the foregoing, this arbitration provision does not apply to disputes under or related to swap agreements.

PRESERVATION AND LIMITATION OF REMEDIES. Notwithstanding the preceding binding arbitration provisions, Bank and Guarantor agree to preserve, without diminution, certain remedies that any party hereto may employ or exercise freely, independently or in connection with an arbitration proceeding or after an arbitration action is brought. Bank and Guarantor shall have the right to proceed in any court of proper jurisdiction or by self-help to exercise or prosecute the following remedies, as applicable: (i) all rights to foreclose against any real or personal property or other security by exercising a power of sale granted under Loan Documents or under applicable law or by judicial foreclosure and sale, including a proceeding to confirm the sale; (ii) all rights of self-help including peaceful occupation of real property and collection of rents, set-off, and peaceful possession of personal property; (iii) obtaining provisional or ancillary remedies including injunctive relief, sequestration, garnishment, attachment, appointment of receiver and filing an involuntary bankruptcy proceeding; and (iv) when applicable, a judgment by confession of judgment. Preservation of these remedies does not limit the power of an arbitrator to grant similar remedies that may be requested by a party in a Dispute.

Guarantor and Bank agree that they shall not have a remedy of punitive or exemplary damages against the other in any Dispute and hereby waive any right or claim to punitive or exemplary damages they have now or which may arise in the future in connection with any Dispute whether the Dispute is resolved by arbitration or judicially.

GUARANTOR'S REPRESENTATIONS AND WARRANTIES. The Guarantor represents and warrants that:

(i) the assumption by the Guarantor of its liabilities and obligations hereunder will result in material benefits to the Guarantor;

(ii) this Guaranty when executed and delivered by the Guarantor will constitute a legal, valid and binding obligation on his or her part, enforceable against the Guarantor in accordance with its terms, subject, as to enforcement of remedies only, to any applicable bankruptcy, insolvency, moratorium or similar laws of general application at the time in effect and general principles of equity;

(iii) the Guarantor has good and marketable title to all of the Guarantor's properties and assets listed in the most recent financial statements delivered to the Lender on or prior to the date hereof (except as otherwise expressly described in said financial statements, and except those properties and assets disposed of since the date of said financial statements in the ordinary course of business);

(iv) neither the execution and delivery of this Guaranty or any other document, agreement, certificate and instrument to which the Guarantor is a party or by which the Guarantor is bound, nor the consummation of the transactions contemplated under the Loan Documents, nor the compliance with or performance of the terms and conditions herein or therein will result in the creation or imposition of any lien, charge or encumbrance of any nature whatsoever upon any of the property or assets of the Guarantor, except as permitted in or anticipated by this Guaranty and the other Loan Documents, nor is prevented by, limited by, conflicts with or will result in the breach or violation of or a default under the terms, conditions or provisions of (a) any indenture, evidence of indebtedness, loan or financing agreement, or other agreement or instrument of whatever nature to which the Guarantor is a party or by which the Guarantor or its properties are bound, or (b) any provision of any existing law, rule, regulation, order, writ, injunction or decree of any court or governmental authority to which the Guarantor is subject;

(v) the Guarantor is not a party to any action, suit, proceeding, inquiry, hearing or investigation pending, or within the best of the Guarantor's knowledge, after due inquiry and investigation, threatened, in any court of law or in equity, or before or by any governmental authority wherein there is a reasonable probability that an unfavorable determination, decision, decree, ruling or finding would (a) result in any material adverse change in the business, assets, liabilities, financial condition, properties or operations of the Guarantor, (b) materially adversely affect the transactions contemplated by this Guaranty and the other Loan Documents or the Guarantor's ability to perform its obligations hereunder, or (c) adversely affect the validity or enforceability of this Agreement of Guaranty;

(vi) the Guarantor is not in violation of or default with respect to any law, rule, regulation, order, writ, injunction, decree or demand of any court, governmental authority, commission, board, agency or instrumentality;

(vii) all consents, approvals, orders or authorizations of, or registrations, declarations or filings with any governmental authority which are required in connection with the valid execution and delivery of this Guaranty by the Guarantor and the other Loan Documents to which it is a party, and the carrying out or performance of any of the transactions required or contemplated hereunder to be performed by the Guarantor have been obtained or accomplished and are in full force and effect; and

(viii) the Guarantor has duly filed or caused to be filed all federal, state and municipal tax reports and returns which are required to be filed by it, and has paid or made adequate provision for the payment of, all taxes, assessments, fees and other governmental charges which have become due pursuant to said returns, or otherwise pursuant to any assessment received by the Guarantor, except such taxes, if any, as are being contested in good faith by the Guarantor by appropriate proceedings (provided that such contest shall not result in a lien being placed on any of the Guarantor's properties or assets or result in any of the Guarantor's properties or assets being subject to loss or forfeiture as a result of nonpayment during the continuance of such contest) and for which the Guarantor has maintained adequate reserves.

GUARANTOR'S COVENANTS. Guarantor covenants and agrees that so long as this Guaranty is in full force and effect it shall comply with all of the covenants set forth in SECTION 10 of the Loan Agreement as they

apply to the Guarantor and the Subsidiaries of Borrower (collectively, the "Loan Covenants"). All of such Loan Covenants are deemed incorporated herein in their entirety as if fully and completely set forth herein except that all references to "Borrower" therein are hereby deemed references to the Guarantor.

This Guaranty shall automatically be deemed effective and in full force and effect upon the occurrence of the "Effective Time" (as such term is defined in the Agreement and Plan of Merger dated December 5, 1997 among the Borrower, EMKR Acquisition Corporation, the Guarantor and the principal stockholders of the Guarantor).

IN WITNESS WHEREOF, Guarantor, on the day and year first written above, has caused this Unconditional Guaranty to be executed under seal.

MICROOPTICAL DEVICES, INC.

By: /s/ Reuben F. Richards, Jr.

Name: Reuben F. Richards, Jr.
Title: President & CEO

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EXECUTION

SECURITY AGREEMENT

December 5, 1997

MicroOptical Devices, Inc.
5601-C Midway Park Place, N.E.
Albuquerque, New Mexico 87109
(Individually and collectively "Debtor")

First Union National Bank
1889 Highway 27
Edison, New Jersey 08817
(Hereinafter referred to as the "Bank")

For value received and to secure the payment and performance of the guaranteed obligations under that Unconditional Guaranty dated of even date herewith, given by Debtor to Bank guaranteeing obligations of EMCORE Corporation ("Borrower") to Bank, its successors and assigns, and any extensions, renewals, modifications or novations thereof (the "Guaranty"), and all costs and expenses incurred by Bank to obtain, preserve, perfect and enforce the security interest granted herein and to maintain, preserve, and collect the property subject to the security interest (collectively, "Guaranty Obligations"), Debtor hereby grants to Bank a continuing first priority and only security interest in and lien upon the following described property, now owned or hereafter acquired, any additions, accessions, or substitutions thereof and thereto (including but not limited to investment property and security entitlements), and all cash and non-cash proceeds and products thereof (collectively, "Collateral"):

All accounts, contract rights, leases, and any other rights of Debtor to payment for goods sold or leased or for services rendered; furniture; furnishings; fixtures; equipment; machinery; accessories; moveable trade fixtures; goods held for sale or being processed for sale in Debtor's business, including all raw materials, supplies, and other materials used or consumed in Debtor's business, goods in process, finished goods, and all other items customarily classified as inventory; building improvement and construction materials, supplies and equipment; chattel paper; instruments; documents; all funds on deposit with Bank and its affiliates; and all general intangibles; as well as all parts, replacements, substitutions, profits, products and cash and non-cash proceeds of the foregoing (including insurance and condemnation proceeds payable by reason of condemnation of or loss or damage thereto) in any form and wherever located.

All stocks and bonds together with all cash and non-cash proceeds thereof (including investment property, security entitlements, and dividends).

All instruments, documents, chattel paper, goods, moneys, securities, drafts, and other property of Debtor now in possession of and at any time and from time to time hereafter delivered to Bank, its agents or affiliates, whether for safekeeping, pledge, custody, transmission, collection, or otherwise, and all of Debtor's deposits, balances, sums, proceeds, and credits with, and any of its claims against Bank and affiliates of Bank, at any time existing, together with the increases and profits received therefrom and the proceeds thereof, including insurance payable because of loss or damage thereto.

All of Debtor's demand deposit accounts, checking accounts, time savings accounts, certificates of deposit or other accounts of any nature maintained in or with Bank and affiliates of Bank.

All equipment, all accessories and parts that become a part of the equipment by accession, and all supplies used or to be used in connection therewith.

All general intangibles (including, without limitation, all contract rights, tax refunds and tax refund claims, choses in action, causes of action, corporate or other business records, inventions, designs, patents, patent applications, trademarks, trade names, trade secrets, goodwill, copyrights, registrations, licenses, franchises, claims under guaranties, security interests or other security held or granted to secure payment of contracts by account debtors, all rights to indemnification and all other intangible property of every kind and nature).

All inventory, including all raw materials and work in process to be processed into such inventory, and all accessions, attachments and other additions to, substitutes for, replacements for, improvements to and returns of such inventory, all accounts arising from the disposition of inventory.

All security deposits, escrow, other deposits and other security provided by lessees, subleases, or other obligor under any leases, subleases, occupancy agreements, or other contracts assigned to Bank.

Debtor hereby represents and agrees that:

OWNERSHIP. Debtor owns the Collateral or Debtor will purchase and acquire rights in the Collateral within ten days of the date advances are made under the Loan Documents. If Collateral is being acquired with the proceeds of an advance under the Loan Documents, Debtor authorizes Bank to disburse proceeds directly to the seller of the Collateral. The Collateral is free and clear of all liens, security interests, and claims, and Debtor will keep the Collateral free and clear from all liens, security interests and claims, other than those granted to Bank.

NAME AND OFFICES. There has been no change in the name of Debtor, or the name under which Debtor conducts business, within the 5 years preceding the date of execution of this Security Agreement and Debtor has not moved its executive offices or residence within the 5 years preceding the date of execution of this Security Agreement except as previously reported in writing to Bank. The taxpayer identification number of Debtor as provided herein is correct.

TITLE/TAXES. Debtor has good and marketable title to Collateral and will warrant and defend same against all claims. Debtor will not transfer, sell, or lease Collateral (except in the ordinary course of business). Debtor agrees to pay promptly all taxes and assessments upon or for the use of Collateral and on this Security Agreement. At its option, Bank may discharge taxes, liens, security interests or other encumbrances at any time levied or placed on Collateral. Debtor agrees to reimburse Bank, on demand, for any such payment made by Bank. Any amounts so paid shall be added to the Guaranty Obligations.

WAIVERS. Debtor waives presentment, demand, protest, notice of dishonor, notice of default, demand for payment, notice of intention to accelerate, and notice of acceleration of maturity. Debtor further agrees not to assert against Bank as a defense (legal or equitable), as a set-off, as a counterclaim, or otherwise, any claims Debtor may have against any seller or lessor that provided personal property or services relating to any part of the Collateral. Debtor waives all exemptions and homestead rights with regard to the Collateral. **DEBTOR WAIVES ANY AND ALL RIGHTS TO NOTICE OR TO HEARING PRIOR TO BANK'S TAKING IMMEDIATE POSSESSION OR CONTROL OF ANY COLLATERAL,** and to any bond or security which might be required by applicable law prior to the exercise of any of Bank's remedies against any Collateral.

EXTENSIONS, RELEASES. Debtor agrees that Bank may extend, renew or modify any of the Guaranty Obligations and grant any releases, compromises or indulgences with respect to any security for the Guaranty Obligations, or with respect to any party liable for the Guaranty Obligations, all without notice to or

consent of Debtor and without affecting the liability of Debtor or the enforceability of this Security Agreement.

NOTIFICATIONS OF CHANGE. Debtor will notify Bank in writing at least 30 days prior to any change in: (i) Debtor's chief place of business and/or residence; (ii) Debtor's name or identity; or (iii) Debtor's corporate/organizational structure. Debtor will keep Collateral at the location(s) previously provided to Bank until such time as Bank provides written advance consent to a change of location. Debtor will bear the cost of preparing and filing any documents necessary to protect Bank's liens.

COLLATERAL CONDITION AND LAWFUL USE. Debtor represents that Collateral is in good repair and condition and that Debtor shall use reasonable care to prevent Collateral from being damaged or depreciating. Debtor shall immediately notify Bank of any material loss or damage to Collateral. Debtor shall not permit any item of equipment to become a fixture to real estate or an accession to other personal property. Debtor represents it is in compliance in all respects with all federal, state and local laws, rules and regulations applicable to its properties, Collateral, operations, business, and finances, including, without limitation, any federal or state laws relating to liquor (including 18 U.S.C. ss. 3617, et seq.) or narcotics (including 21 U.S.C. ss. 801, et seq.) and all applicable federal, state and local laws, and regulations intended to protect the environment.

RISK OF LOSS AND INSURANCE. Debtor shall bear all risk of loss with respect to the Collateral. The injury to or loss of Collateral, either partial or total, shall not release Debtor from payment or other performance hereof. Debtor agrees to obtain and keep in force casualty and hazard insurance on Collateral naming Bank as loss payee. Such insurance is to be in form and amounts satisfactory to Bank. All such policies shall provide to Bank a minimum of 30 days written notice of cancellation. Debtor shall furnish to Bank such policies, or other evidence of such policies satisfactory to Bank. Bank is authorized, but not obligated, to purchase any or all insurance or "Single Interest Insurance" protecting such interest as Bank deems appropriate against such risks and for such coverage and for such amounts, including either the loan amount or value of the Collateral, all at its discretion, and at Debtor's expense. In such event, Debtor agrees to reimburse Bank for the cost of such insurance and Bank may add such cost to the Guaranty Obligations. Debtor shall bear the risk of loss to the extent of any deficiency in the effective insurance coverage with respect to loss or damage to any of the Collateral. Debtor hereby assigns to Bank the proceeds of all such insurance and directs any insurer to make payments directly to Bank. Debtor hereby appoints Bank its attorney-in-fact, which appointment shall be irrevocable and coupled with an interest for so long as the Guaranty Obligations are unpaid, to file proof of loss and/or any other forms required to collect from any insurer any amount due from any damage or destruction of Collateral, to agree to and bind Debtor as to the amount of said recovery, to designate payee(s) of such recovery, to grant releases to insurer, to grant subrogation rights to any insurer, and to endorse any settlement check or draft. Debtor agrees not to exercise any of the foregoing powers granted to Bank without the Bank's prior written consent.

ADDITIONAL COLLATERAL. If at any time Collateral is unsatisfactory to Bank, then on demand of Bank, Debtor shall immediately furnish such additional Collateral satisfactory to Bank to be held by Bank as if originally pledged hereunder and shall execute such additional security agreements and financing statements as requested by Bank.

FINANCING STATEMENTS. No financing statement (other than any filed by Bank or disclosed above) covering any of Collateral or proceeds thereof is on file in any public filing office. This Security Agreement, or a copy thereof, or any financing statement executed hereunder may be recorded. On request of Bank, Debtor will execute one or more financing statements in form satisfactory to Bank and will pay all costs and expenses of filing the same or of filing this Security Agreement in all public filing offices, where filing is deemed by Bank to be desirable. Bank is authorized to file financing statements relating to Collateral without Debtor's signature where authorized by law. Debtor appoints Bank as its attorney-in-fact to execute

such documents necessary to accomplish perfection of Bank's security interest. The appointment is coupled with an interest and shall be irrevocable as long as any Guaranty Obligations remain outstanding. Debtor further agrees to take such other actions as might be requested for the perfection, continuation and assignment, in whole or in part, of the security interests granted herein. If certificates are issued or outstanding as to any of the Collateral, Debtor will cause the security interests of Bank to be properly protected, including perfection of notation thereon.

LANDLORD/MORTGAGEE WAIVERS. Debtor shall cause each mortgagee of real property owned by Debtor and each landlord of real property leased by Debtor to execute and deliver instruments satisfactory in form and substance to Bank by which such mortgagee or landlord waives its rights, if any, in the Collateral.

STOCK, DIVIDENDS. If, with respect to any security pledged hereunder, a stock dividend is declared, any stock split made or right to subscribe is issued, all the certificates for the shares representing such stock dividend, stock split or right to subscribe will be immediately delivered, duly endorsed, to the Bank as additional collateral, and any cash or non-cash proceeds and products thereof, including investment property and security entitlements will be immediately delivered to Bank. If Debtor has granted to Bank a security interest in securities, Debtor acknowledges that such grant includes all investment property and security entitlements, now existing or hereafter arising, relating to such securities. In addition, Debtor agrees to execute such notices and instructions to securities intermediaries as Bank may reasonably request.

CONTRACTS, CHATTEL PAPER, ACCOUNTS, GENERAL INTANGIBLES. Debtor warrants that Collateral consisting of contract rights, chattel paper, accounts, or general intangibles is (i) genuine and enforceable in accordance with its terms except as limited by law; (ii) not subject to any defense, set-off, claim or counterclaim of a material nature against Debtor except as to which Debtor has notified Bank in writing; and (iii) not subject to any other circumstances that would impair the validity, enforceability, value, or amount of such Collateral except as to which Debtor has notified Bank in writing. Debtor shall not amend, modify or supplement any lease, contract or agreement contained in Collateral or waive any provision therein, without prior written consent of Bank.

ACCOUNT INFORMATION. From time to time, at the Bank's request, Debtor shall provide Bank with schedules describing all accounts and contracts, including customers' addresses, credited or acquired by Debtor and at the Bank's request shall execute and deliver written assignments of contracts and other documents evidencing such accounts and contracts to Bank. Together with each schedule, Debtor shall, if requested by Bank, furnish Bank with copies of Debtor's sales journals, invoices, customer purchase orders or the equivalent, and original shipping or delivery receipts for all goods sold, and Debtor warrants the genuineness thereof.

ACCOUNT AND CONTRACT DEBTORS. After a Default occurs, Bank shall have the right to notify the account and contract debtors obligated on any or all of the Collateral to make payment thereof directly to Bank and Bank may take control of all proceeds of any such Collateral, which rights Bank may exercise at any time. The cost of such collection and enforcement, including attorneys' fees and expenses, shall be borne solely by Debtor whether the same is incurred by Bank or Debtor. After a Default occurs, upon demand of Bank, Debtor will, upon receipt of all checks, drafts, cash and other remittances in payment on Collateral, deposit the same in a special bank account maintained with Bank, over which Bank also has the power of withdrawal.

If a Default occurs, no discount, credit, or allowance shall be granted by Debtor to any account or contract debtor and no return of merchandise shall be accepted by Debtor without Bank's consent. Bank may, after Default, settle or adjust disputes and claims directly with account contract debtors for amounts and upon terms that Bank considers advisable, and in such cases, Bank will credit the Guaranty Obligations with the

net amounts received by Bank, after deducting all of the expenses incurred by Bank. Debtor agrees to indemnify and defend Bank and hold it harmless with respect to any claim or proceeding arising out of any matter related to collection of Collateral.

GOVERNMENT CONTRACTS. If any Collateral covered hereby arises from obligations due to Debtor from any governmental unit or organization, Debtor shall immediately notify Bank in writing and execute all documents and take all actions demanded by Bank to ensure recognition by such governmental unit or organization of the rights of Bank in the Collateral.

INVENTORY. So long as no Default has occurred, Debtor shall have the right in the regular course of business, to process and sell Debtor's inventory, unless Bank shall hereafter otherwise direct in writing. Upon demand of Bank, Debtor will, upon receipt of all checks, drafts, cash and other remittances, in payment of Collateral sold, deposit the same in a special bank account maintained with Bank, over which Bank also has the power of withdrawal. Debtor shall comply with all federal, state, and local laws, regulations, rulings, and orders applicable to Debtor or its assets or business, in all respects. Without limiting the generality of the previous sentence, Debtor shall comply with all requirements of the federal Fair Labor Standards Act in the conduct of its business and the production of inventory. Debtor shall notify Bank immediately of any violation by Debtor of the Fair Labor Standards Act, and a failure of Debtor to so notify Bank shall constitute a continuing representation that all inventory then existing has been produced in compliance with the Fair Labor Standards Act.

INSTRUMENTS, CHATTEL PAPER. Any Collateral that is instruments, chattel paper and negotiable documents will be properly assigned to, deposited with and held by Bank, unless Bank shall hereafter otherwise direct or consent in writing. Bank may, without notice, before or after maturity of the Guaranty Obligations, exercise any or all rights of collection, conversion, or exchange and other similar rights, privileges and options pertaining to Collateral, but shall have no duty to do so.

COLLATERAL DUTIES. Bank shall have no custodial or ministerial duties to perform with respect to Collateral pledged except as set forth herein; and by way of explanation and not by way of limitation, Bank shall incur no liability for any of the following: (i) loss or depreciation of Collateral (unless caused by its willful misconduct), (ii) its failure to present any paper for payment or protest, to protest or give notice of nonpayment, or any other notice with respect to any paper or Collateral, or (iii) its failure to present or surrender for redemption, conversion or exchange any bond, stock, paper or other security whether in connection with any merger, consolidation, recapitalization, or reorganization, arising out of the refunding of the original security, or for any other reason, or its failure to notify any party hereto that Collateral should be so presented or surrendered.

TRANSFER OF COLLATERAL. The Bank may assign its rights in the Collateral or any part thereof to any assignee who shall thereupon become vested with all the powers and rights herein given to the Bank with respect to the property so transferred and delivered, and the Bank shall thereafter be forever relieved and fully discharged from any liability with respect to such property so transferred, but with respect to any property not so transferred the Bank shall retain all rights and powers hereby given.

SUBSTITUTE COLLATERAL. With prior written consent of Bank, other Collateral may be substituted for the original Collateral herein in which event all rights, duties, obligations, remedies and security interests provided for, created or granted shall apply fully to such substitute Collateral.

INSPECTION, BOOKS AND RECORDS. Debtor will at all times keep accurate and complete records covering each item of Collateral, including the proceeds therefrom. Bank, or any of its agents, shall have the right, at intervals to be determined by Bank and without hindrance or delay, to inspect, audit, and examine the Collateral and to make extracts from the books, records, journals, orders, receipts,

correspondence and other data relating to Collateral, Debtor's business or any other transaction between the parties hereto. Debtor will at its expense furnish Bank copies thereof upon request.

CROSS COLLATERALIZATION LIMITATION. As to any other existing or future consumer purpose loan made by Bank to Debtor, within the meaning of the Federal Consumer Credit Protection Act, Bank expressly waives any security interest granted herein in Collateral that Debtor uses as a principal dwelling and household goods.

ATTORNEYS' FEES AND OTHER COSTS OF COLLECTION. Debtor shall pay all of Bank's reasonable expenses incurred in enforcing this Agreement and in preserving and liquidating Collateral, including but not limited to, reasonable arbitration, paralegals', attorneys' and experts' fees and expenses, whether incurred without the commencement of a suit, in any trial, arbitration, or administrative proceeding, or in any appellate or bankruptcy proceeding.

DEFAULT. If any of the following occurs, a default ("Default") under this Security Agreement shall exist: (i) The failure of timely payment or performance of any of the Guaranty Obligations or a default or any Event of Default (as such term is defined in the applicable Loan Document) under any Loan Document; (ii) Any breach of any representation or agreement contained or referred to in this Security Agreement or other Loan Document; (iii) Any loss, theft, substantial damage, or destruction of Collateral not fully covered by insurance, or as to which insurance proceeds are not remitted to Bank within 30 days of the loss; any sale (except the sale of inventory in the ordinary course of business), lease, or encumbrance of any of Collateral without prior written consent of Bank; or the making of any levy, seizure, or attachment on or of Collateral which is not removed within 10 days; or (iv) the dissolution of, termination of existence of, loss of good standing status by, appointment of a receiver for, assignment for the benefit of creditors of, or commencement of any bankruptcy or insolvency proceeding by or against Debtor, its Subsidiaries or Affiliates ("Affiliate" shall have the meaning as defined in 11 U.S.C. ss. 101; and "Subsidiary" shall mean any corporation of which more than 50% of the issued and outstanding voting stock is owned directly or indirectly by Debtor), if any, or any general partner of or the holder(s) of the majority ownership interests in Debtor or any party to the Loan Documents.

REMEDIES ON DEFAULT (INCLUDING POWER OF SALE). If a Default occurs, all of the Guaranty Obligations shall be immediately due and payable, without notice and Bank shall have all the rights and remedies of a secured party under the Uniform Commercial Code. Without limitation thereto, Bank shall have the following rights and remedies: (i) to take immediate possession of Collateral, without notice or resort to legal process, and for such purpose, to enter upon any premises on which Collateral or any part thereof may be situated and to remove the same therefrom, or, at its option, to render the Collateral unusable or dispose of said Collateral on Debtor's premises; (ii) to require Debtor to assemble the Collateral and make it available to Bank at a place to be designated by Bank; (iii) to exercise its right of set-off or bank lien as to any monies of Debtor deposited in demand, checking, time, savings, certificate of deposit or other accounts of any nature maintained by Debtor with Bank or Affiliates of Bank, without advance notice, regardless of whether such accounts are general or special; (iv) to dispose of Collateral, as a unit or in parcels, separately or with any real property interests also securing the Guaranty Obligations, in any county or place to be selected by Bank, at either private or public sale (at which public sale bank may be the purchaser) with or without having the Collateral physically present at said sale. Any notice of sale, disposition or other action by Bank required by law and sent to Debtor at Debtor's address shown above, or at such other address of Debtor as may from time to time be shown on the records of Bank, at least 5 days prior to such action, shall constitute reasonable notice to Debtor. Notice shall be deemed given or sent when mailed postage prepaid to Debtor's address as provided herein. Bank shall be entitled to apply the proceeds of any sale or other disposition of the Collateral, and the payments received by Bank with respect to any of the Collateral, to the Guaranty Obligations in such order and manner as Bank may determine. Collateral that is subject to rapid declines in value and is customarily sold in recognized markets may be disposed of by Bank in a recognized market for such collateral without providing notice of sale.

REMEDIES ARE CUMULATIVE. No failure on the part of Bank to exercise, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise by Bank or any right, power or remedy hereunder preclude any other or further exercise thereof or the exercise of any right, power or remedy. The remedies herein provided are cumulative and are not exclusive of any remedies provided by law, in equity, or in other Loan Documents.

MISCELLANEOUS. (i) AMENDMENTS AND WAIVERS. No waiver, amendment or modification of any provision of this Security Agreement shall be valid unless in writing and signed by an officer of Bank. No waiver by Bank of any Default shall operate as a waiver of any other Default or of the same Default on a future occasion. Neither the failure of, nor any delay by, Bank in exercising any right, power or privilege granted pursuant to this Security Agreement shall operate as a waiver thereof, nor shall a single or partial exercise thereof preclude any other or further exercise of any other right, power or privilege. (ii) ASSIGNMENT. All rights of Bank hereunder are freely assignable, in whole or in part, and shall inure to the benefit of and be enforceable by Bank, its successors, assigns and affiliates. Debtor shall not assign its rights and interest hereunder without the prior written consent of Bank, and any attempt by Debtor to assign without Bank's prior written consent is null and void. Any assignment shall not release Debtor from the Guaranty Obligations. This Security Agreement shall be binding upon Debtor, and the heirs, personal representatives, successors, and assigns of Debtor. (iii) APPLICABLE LAW; CONFLICT BETWEEN DOCUMENTS. This Security Agreement shall be governed by and construed under the law of the state in which the office of Bank as stated above is located without regard to that state's conflict of laws principles. If any terms of this Security Agreement conflict with the terms of any commitment letter or loan proposal, the terms of this Security Agreement shall control. (iv) JURISDICTION. Debtor irrevocably agrees to non-exclusive personal jurisdiction in the state in which the office of Bank as stated above is located. (v) SEVERABILITY. If any provision of this Security Agreement shall be prohibited by or invalid under applicable law, such provision shall be ineffective but only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Security Agreement. (vi) NOTICES. Any notices to Debtor shall be sufficiently given, if in writing and mailed or delivered to the address of Debtor shown above or such other address as provided hereunder; and to Bank, if in writing and mailed or delivered to Bank's office address shown above or such other address as Bank may specify in writing from time to time. In the event that the Debtor changes Debtor's mailing address at any time prior to the date the Guaranty Obligations are paid in full, Debtor agrees to promptly give written notice of said change of address by registered or certified mail, return receipt requested, all charges prepaid. (vii) CAPTIONS. The captions contained herein are inserted for convenience only and shall not affect the meaning or interpretation of this Security Agreement or any provision hereof. The use of the plural shall also mean the singular, and vice versa. (viii) LOAN DOCUMENTS. The term "Loan Documents" refers to all documents, whether now or hereafter existing, executed in connection with the Guaranty Obligations, including, without limitation, the Revolving Loan and Security Agreement dated as of March 31, 1997 ("Loan Agreement") between the Borrower and the Bank together with all of the "Loan Documents" (as such term is defined in the Loan Agreement) and may include, without limitation and whether executed by Borrower, Debtor or others, commitment letters, loan agreements, guaranty agreements, other security agreements, letters of credit, instruments, financing statements, mortgages, deeds of trust, deeds to secure debt, and any amendments or supplements (excluding swap agreements as defined in 11 U.S.C. ss. 101). (ix) JOINT AND SEVERAL LIABILITY. If more than one person has signed this Security Agreement, such parties are jointly and severally obligated hereunder. (x) BINDING CONTRACT. Debtor by execution and Bank by acceptance of this Security Agreement, agree that each party is bound by all terms and provisions of this Security Agreement.

This Security Agreement shall automatically be deemed effective and in full force and effect upon the occurrence of the "Effective Time" (as such term is defined in the Agreement and Plan of Merger dated , 1997, among the Borrower, EMKR Acquisition Corporation, the Debtor and the principal stockholders of Debtor).

IN WITNESS WHEREOF, Debtor, on the day and year first written above, has caused this Security Agreement to be executed under seal.

MICROOPTICAL DEVICES, INC.

By: /s/ Reuben F. Richards, Jr.

Name: Reuben F. Richards, Jr.
Title: President & CEO

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SCHEDULE A TO UCC

Schedule A to UCC from MicroOptical Devices, Inc. ("Debtor") and for the benefit of First Union National Bank ("Secured Party").

Description of Collateral:

All accounts, contract rights, leases, and any other rights of Debtor to payment for goods sold or leased or for services rendered; furniture; furnishings; fixtures; equipment; machinery; accessories; moveable trade fixtures; goods held for sale or being processed for sale in Debtor's business, including all raw materials, supplies, and other materials used or consumed in Debtor's business, goods in process, finished goods, and all other items customarily classified as inventory; building improvement and construction materials, supplies and equipment; chattel paper; instruments; documents; all funds on deposit with Bank and its affiliates; and all general intangibles; as well as all parts, replacements, substitutions, profits, products and cash and non-cash proceeds of the foregoing (including insurance and condemnation proceeds payable by reason of condemnation of or loss or damage thereto) in any form and wherever located.

All stocks and bonds together with all cash and non-cash proceeds thereof (including investment property, security entitlements, and dividends).

All instruments, documents, chattel paper, goods, moneys, securities, drafts, and other property of Debtor now in possession of and at any time and from time to time hereafter delivered to Bank, its agents or affiliates, whether for safekeeping, pledge, custody, transmission, collection, or otherwise, and all of Debtor's deposits, balances, sums, proceeds, and credits with, and any of its claims against Bank and affiliates of Bank, at any time existing, together with the increases and profits received therefrom and the proceeds thereof, including insurance payable because of loss or damage thereto.

All of Debtor's demand deposit accounts, checking accounts, time savings accounts, certificates of deposit or other accounts of any nature maintained in or with Bank and affiliates of Bank.

All equipment, all accessories and parts that become a part of the equipment by accession, and all supplies used or to be used in connection therewith.

All general intangibles (including, without limitation, all contract rights, tax refunds and tax refund claims, choses in action, causes of action, corporate or other business records, inventions, designs, patents, patent applications, trademarks, trade names, trade secrets, goodwill, copyrights, registrations, licenses, franchises, claims under guaranties, security interests or other security held or granted to secure payment of contracts by account debtors, all rights to indemnification and all other intangible property of every kind and nature).

All inventory, including all raw materials and work in process to be processed into such inventory, and all accessions, attachments and other additions to, substitutes for, replacements for, improvements to and returns of such inventory, all accounts arising from the disposition of inventory.

All security deposits, escrow, other deposits and other security provided by lessees, subleases, or other obligor under any leases, subleases, occupancy agreements, or other contracts assigned to Bank.

All products and proceeds (including investment property and security entitlements) of any of the property described above in any form, and all proceeds of such products.

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this Form 8-K of our report dated March 21, 1997 included in MicroOptical Devices, Inc.'s financial statements as of December 31, 1996 and 1995. It should be noted that we have not audited any financial statements of MicroOptical Devices, Inc. subsequent to December 31, 1996 or performed any audit procedures subsequent to the date of our report.

/s/ ARTHUR ANDERSEN LLP

Albuquerque, New Mexico
December 23, 1997