

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

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) and (b) Financial Statements of Business Acquired and Pro Forma Financial Information.

The Registrant has not included the financial statements of the business acquired or the pro forma financial information for the transaction described in Item 2 above and will file such financial information not later than 60 days after this report on Form 8-K is due by an amendment to this report.

(c) Exhibits.
See the Exhibit Index attached hereto.

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 22, 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.
99	Press Release issued December 5, 1997.

AGREEMENT AND PLAN OF MERGER
AMONG
EMCORE CORPORATION
AND
EMKR ACQUISITION CORPORATION
AND
MICROOPTICAL DEVICES, INC.
AND
THE PRINCIPAL MODE STOCKHOLDERS
DECEMBER 5, 1997

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Disclosure Schedule

AGREEMENT AND PLAN OF MERGER

This Agreement and Plan of Merger (this "Agreement") is entered into as of December 5, 1997 (the "Agreement Date") by and among Emcore Corporation, a New Jersey corporation ("Emcore"), EMKR Acquisition Corporation, a Delaware corporation and a wholly-owned subsidiary of Emcore ("Acquisition Subsidiary"), MicroOptical Devices, Inc., a Delaware corporation ("MODE"), and the stockholders of MODE identified on Schedule I hereto (collectively, the "Principal MODE Stockholders"). Emcore, Acquisition Subsidiary, MODE and the Principal MODE Stockholders are referred to collectively herein as the "Parties."

Preliminary Statement

1. Subject to the terms and conditions of this Agreement, Acquisition Subsidiary will merge with and into MODE, in a transaction that will qualify as a reorganization under Sections 368(a)(1)(A) and 368(a)(2)(E) of the Code (as defined below), pursuant to which MODE will become a wholly-owned subsidiary of Emcore and the MODE Stockholders will receive shares of common stock of Emcore ("Emcore Common Stock") as hereinafter set forth.

2. The Board of Directors of MODE has determined that the Merger (as defined in Section 1.1) is fair to, and in the best interest of, MODE and its stockholders (the "MODE Stockholders") and has approved and adopted this Agreement and the transactions contemplated hereby.

3. The Board of Directors of Emcore has determined that the Merger (as defined in Section 1.1) and the other transactions contemplated by this Agreement are consistent with and in furtherance of the long-term business strategy of Emcore and is fair to and in the best interests of Emcore and its shareholders and has approved and adopted this Agreement and the transactions contemplated hereby.

4. The MODE Stockholders have approved and adopted this Agreement and the transactions contemplated hereby.

NOW, THEREFORE, in consideration of the representations, warranties and covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE I

THE MERGER

1.1 The Merger. Upon and subject to the terms and conditions of this Agreement and pursuant to Section 251 of the Delaware General Corporation Law (the "Delaware

Law"), Acquisition Subsidiary shall merge with and into MODE (with such merger referred to herein as the "Merger") at the Effective Time (as defined below). From and after the Effective Time, the separate corporate existence of Acquisition Subsidiary shall cease and MODE shall continue as the surviving corporation in the Merger (the "Surviving Corporation"). The "Effective Time" shall be the time at which Acquisition Subsidiary and MODE file a certificate of merger or other appropriate documents prepared and executed in accordance with the relevant provisions of the Delaware Law (the "Certificate of Merger") with the Secretary of the State of Delaware, or at such later time as specified in the Certificate of Merger.

1.2 The Closing. The closing of the transactions contemplated by this Agreement (the "Closing") shall take place at the offices of Brobeck, Phleger & Harrison LLP, New York, New York 10021, commencing at 10:00 a.m. local time on December 5, 1997, or, if all of the conditions to the obligations of the Parties to consummate the transactions contemplated hereby have not been satisfied or waived by such date, on such mutually agreeable later date as soon as practicable after the satisfaction or waiver of all conditions to the obligations of the Parties to consummate the transactions contemplated hereby (the "Closing Date").

1.3 Actions at the Closing. At the Closing:

(a) MODE shall deliver to Emcore the various certificates, instruments and documents referred to in Section 6.1 below;

(b) Emcore and Acquisition Subsidiary shall deliver to MODE the various certificates, instruments and documents referred to in Section 6.2 below;

(c) Acquisition Subsidiary and MODE shall file with the Secretary of State of the State of Delaware the Certificate of Merger;

(d) MODE shall deliver to Emcore for cancellation certificates (the "Certificates") evidencing all of the issued and outstanding shares of capital stock of MODE (the "MODE Shares"), including any MODE shares subject to an escrow or pledge arrangement, duly endorsed in blank or with stock powers duly executed in blank by each such MODE Stockholder; and

(e) the MODE Principal Stockholders and the Escrow Agent (as defined therein) shall execute and deliver the Escrow Agreement attached hereto as Exhibit A (the "Escrow Agreement") and Emcore shall deliver to the Escrow Agent a certificate for the Escrow Shares (as defined in Section 1.5 below) being placed in escrow on the Closing Date pursuant to Section 1.7 below.

1.4 Additional Action. The Surviving Corporation may, at any time after the Effective Time, take any action, including executing and delivering any document, in the name and on behalf of either MODE or the Acquisition Subsidiary, in order to consummate the transactions contemplated by this Agreement.

1.5 Conversion of Shares. At the Effective Time, by virtue of the Merger and without any action on the part of any Party:

(a) Each issued and outstanding share of MODE Common Stock (as defined in Section 2.2) shall be automatically converted into the right to receive such number of shares of Emcore Common Stock determined by multiplying such share of MODE Common Stock by the Conversion Ratio. For purposes hereof, the "Conversion Ratio" shall be the number obtained by dividing (i) 1,547,189 by (ii) the sum of (A) the outstanding shares of MODE Common Stock immediately prior to the Effective Time, (B) the number of shares of MODE Common Stock into which the MODE Preferred Stock (as defined in Section 2.2) outstanding immediately prior to the Effective Time are then convertible (the "Underlying MODE Common Stock"), (C) the number of shares of MODE Common Stock for which the Vested Options (as defined in Section 2.2) are exercisable immediately prior to the Effective Time and (D) the number of shares of MODE Common Stock underlying the Warrants (as defined in Section 2.2).

(b) Each issued and outstanding share of MODE Preferred Stock (as defined in Section 2.2) shall be automatically converted into the right to receive such number of shares of Emcore Common Stock determined by multiplying (i) the number of shares of Underlying MODE Common Stock represented by such shares of MODE Preferred Stock immediately prior to the Effective Time by (ii) the Conversion Ratio.

(c) Such number of shares of Emcore Common Stock issuable to the Principal MODE Stockholders in connection with the Merger that equal five percent (5%) of the aggregate number of shares of Emcore Common Stock issuable to the MODE Stockholders pursuant to the Merger Agreement shall be deposited in escrow, determined on a pro rata basis (the "Escrow Shares"), pursuant to Section 1.7 below and shall be held and disposed of in accordance with the terms of the Escrow Agreement and Section 1.7 below. All shares of Emcore Common Stock issuable hereunder at the Effective Time, other than the Escrow Shares, shall be referred to herein as the "Initial Shares." The Initial Shares and the Escrow Shares shall together be referred to herein as the "Merger Shares."

(d) Each and every share of capital stock held in MODE's treasury immediately prior to the Effective Time shall be cancelled and retired without payment of any consideration therefor.

(e) No fractional shares shall be issued in the Merger. All fractional Merger Shares to which a MODE Stockholder would otherwise be entitled shall be cancelled and such MODE Stockholder shall be entitled to receive cash in lieu thereof based upon a price of \$19.39 per share of Emcore Common Stock.

1.6 Exchange of Shares. On the Closing Date, the MODE Stockholders shall surrender to Emcore the Certificates held by the MODE Stockholders and shall be entitled to receive in exchange therefor the Initial Shares issuable pursuant to Section 1.5 above. Until

properly surrendered, the Certificates shall be deemed for all purposes to evidence only the right to receive the Initial Shares issuable to the MODE Stockholders pursuant to Section 1.5 above. The MODE Stockholders shall not be entitled to receive certificates for the Initial Shares to which such stockholders would otherwise be entitled until the Certificates are properly surrendered. A complete and accurate list of the MODE Stockholders and the number of Merger Shares which each such MODE Stockholder is entitled to receive on the Closing Date, together with the number of Escrow Shares deposited in escrow pursuant to Section 1.7 by each Principal MODE Stockholder, is attached hereto as Schedule II.

1.7 Escrow. On the Closing Date, Emcore shall deliver to the Escrow Agent a certificate (issued in the name of the Escrow Agent or its nominee) representing the Escrow Shares, for the purpose of securing the indemnification obligations of the Principal MODE Stockholders set forth in this Agreement. The Escrow Shares shall be held by the Escrow Agent under the Escrow Agreement pursuant to the terms thereof. The Escrow Shares shall be held as a trust fund and shall not be subject to any lien, attachment, trustee process or any other judicial process of any creditor of any party, and shall be held and disbursed solely for the purposes and in accordance with the terms of the Escrow Agreement.

1.8 Certificate of Incorporation. The Certificate of Incorporation of Surviving Corporation in effect at the Effective Time shall be amended as of the Effective Time so as to read in its entirety in the form attached hereto as Exhibit B.

1.9 By-Laws. The By-Laws of Acquisition Subsidiary in effect at the Effective Time shall be the By-laws of the Surviving Corporation, except that the name of the corporation set forth therein shall be changed to MicroOptical Devices, Inc.

1.10 Directors and Officers. The directors and officers of the Acquisition Subsidiary at the Effective Time shall be the directors and officers of the Surviving Corporation.

1.11 No Further Rights. From and after the Effective Time, no MODE Shares shall be deemed to be outstanding, and holders of certificates formerly representing MODE Shares shall cease to have any rights with respect thereto except as provided herein or by law.

1.12 Closing of Transfer Books. At the Effective Time, the stock transfer books of MODE shall be closed and no transfer of MODE Shares shall thereafter be made. If, after the Effective Time, Certificates formerly representing MODE Shares are presented to the Surviving Corporation, they shall be cancelled and exchanged for Initial Shares in accordance with Section 1.5(a) and 1.5(b), as applicable, subject to Sections 1.5(c) and 1.7.

1.13 Treatment of Options.

(a) Assumption of Options. At the Effective Time, the MODE 1996 Stock Option Plan (the "MODE Stock Option Plan") and the Options (as defined in Section 2.2), whether vested or unvested, shall be assumed by Emcore. Each such Option so assumed by

Emcore under this Agreement shall continue to have, and be subject to, the same terms and conditions set forth in the MODE Stock Option Plan immediately prior to the Effective Time, except that (i) such assumed Option will be exercisable for that number of whole shares of Emcore Common Stock equal to the product of the number of shares of MODE Common Stock that were purchasable upon exercise of such Option multiplied by the Conversion Ratio (as defined in Section 1.5(a)) and rounded down to the nearest whole number of shares of Emcore Common Stock, and (ii) the per share exercise price for the shares of Emcore Common Stock purchasable upon exercise of such assumed Option will be equal to the quotient determined by dividing the exercise price per share of MODE Common Stock at which such Option was exercisable by the Conversion Ratio, rounded up to the nearest whole cent. In addition, the exercisability or vesting of such Options and the securities issuable upon exercise thereof will accelerate in connection with the Merger in accordance with the provisions of the agreements evidencing each such Option. Consistent with the terms of the MODE Stock Option Plan and the documents governing the outstanding Options under such Plan, the Merger will not terminate any of the outstanding Options under the MODE Stock Option Plan.

It is the intention of the parties that the Options so assumed by Emcore qualify following the Effective Time as incentive stock options as defined in Section 422 of the Code (as defined in Section 2.8(c)) to the extent such options qualified as incentive stock options prior to the Effective Time.

At the Effective Time or as soon as practicable thereafter, Emcore will issue to each person who, immediately prior to the Effective Time was a holder of an outstanding Option under the MODE Stock Option Plan a document evidencing the foregoing assumption of such Option by Emcore, in substantially the form attached hereto as Exhibit C.

(b) Assignment of Repurchase Rights. All outstanding Repurchase Rights which MODE may hold immediately prior to the Effective Time to repurchase unvested shares of MODE Common Stock purchased or purchasable upon the exercise of Options granted under the MODE Stock Option Plan shall be assigned to Emcore in the Merger and shall thereafter be exercisable by Emcore upon the same terms and conditions in effect immediately prior to the Effective Time, except that the shares purchasable thereunder and the purchase price per share shall be adjusted to reflect the Conversion Ratio.

(c) Form S-8. Emcore agrees to file, no later than 90 days after the Closing, a registration statement on Form S-8 covering the shares of Emcore Common Stock issuable pursuant to outstanding options under the MODE Stock Option Plan assumed by Emcore.

(d) Listing of Additional Shares. Emcore shall, no later than 90 days after the Closing, file with the Nasdaq Market a Notification Form for Listing of Additional Shares with respect to the shares issuable upon exercise of the Options assumed by Emcore in accordance with the provisions of this Section 1.13.

ARTICLE II

REPRESENTATIONS AND WARRANTIES OF MODE

MODE hereby represents and warrants to Emcore that the statements contained in this Article II are true and correct, except as set forth in the disclosure schedule attached hereto (the "Disclosure Schedule"). The Disclosure Schedule shall be arranged in paragraphs corresponding to the numbered paragraphs contained in this Article II, and the disclosures in any paragraph of the Disclosure Schedule shall qualify only the corresponding paragraph in this Article II.

2.1 Organization, Qualification, Corporate Power and Authority.

(a) MODE is a corporation duly organized, validly existing and in corporate and tax good standing under the laws of the State of Delaware. MODE is duly qualified to conduct business and is in corporate and tax good standing under the laws of each jurisdiction in which the nature of its businesses or the ownership or leasing of its properties requires such qualification, each of which jurisdiction is set forth in Section 2.1 of the Disclosure Schedule. MODE has all requisite corporate power and authority to carry on the businesses in which it is engaged and to own and use the properties owned and used by it. MODE has furnished to Emcore true and complete copies of its Certificate of Incorporation and By-laws, each as amended and as in effect on the Agreement Date. MODE has at all times complied with, and is not in default under or in violation of, any provision of its Certificate of Incorporation and By-laws.

(b) MODE has all requisite power and authority to execute and deliver the Fundamental Agreements (as defined below in this Section 2.1(b)) and to perform its obligations under the Fundamental Agreements. The Fundamental Agreements have each been (or in the case of the Escrow Agreement, shall be when delivered) duly and validly (i) executed and delivered by MODE and (ii) authorized by all necessary corporate action on the part of MODE. Each Fundamental Agreement constitutes (or, in the case of the Escrow Agreement, shall constitute) a valid and binding obligation of MODE, enforceable against MODE in accordance with its terms. For purposes of this Agreement, the term "Fundamental Agreements" means this Agreement and the Escrow Agreement.

2.2 Capitalization. The authorized capital stock of MODE consists of:

(i) 12,000,000 shares of common stock, \$.001 par value per share, of which 3,505,000 shares are issued and outstanding (the "MODE Common Stock"), and (ii) 6,000,000 shares of preferred stock, \$.001 par value per share, of which (A) 666,666 shares have been designated Series A Convertible Preferred Stock, \$.001 par value per share, of which 666,666 shares are issued and outstanding (the "MODE Series A Stock") and (B) 5,333,334 shares have been designated Series B Convertible Preferred Stock, \$.001 par value per share, of which 4,076,088 shares are issued and outstanding (the "MODE Series B Stock", together with the MODE Series A Stock, hereinafter shall be referred to as the "MODE Preferred Stock"). A complete and

accurate list of the MODE Stockholders and the number of MODE Shares held by them is set forth in Section 2.2 of the Disclosure Schedule. All of the issued and outstanding MODE Shares are duly authorized and are validly issued, fully paid, nonassessable and were not issued in violation of any preemptive rights. Section 2.2 of the Disclosure Schedule sets forth (i) a complete and accurate list of all persons and entities holding any outstanding options or warrants to purchase MODE Shares, (ii) the aggregate number of options which are outstanding and unexercised held by each such person or entity (the "Options"), (iii) the number of warrants which are outstanding and unexercised held by each such person or entity (the "Warrants") and (iv) the number of Options exercisable immediately prior to the Effective Time to purchase shares of MODE Common Stock that would be, at the time of such purchase, vested, non-forfeitable and not subject to any repurchase right by MODE (the "Vested Options"). Except as set forth in Section 2.2 of the Disclosure Schedule, there are no outstanding or authorized options, warrants, rights, agreements or commitments to which MODE is a party or which are binding upon MODE providing for the issuance, disposition or acquisition of any of its capital stock. Except as set forth in Section 2.2 of the Disclosure Schedule, there are no outstanding or authorized stock appreciation, phantom stock or similar rights with respect to MODE. There are no agreements, voting trusts, proxies or understandings with respect to the voting, or registration under the Securities Act of 1933, as amended (the "Securities Act"), of any MODE Shares. All of the issued and outstanding MODE Shares and Options were issued in compliance with applicable federal and state securities laws.

2.3 Noncontravention. Subject to compliance with (a) the applicable requirements of the Securities Act, (b) any applicable state securities laws, and (c) the Delaware Law, and except as set forth on Section 2.3 of the Disclosure Schedule, neither the execution and delivery by MODE or the Principal Mode Stockholders of this Agreement or the Escrow Agreement, nor the consummation of the transactions contemplated hereby or thereby, will (i) conflict with or violate any provision of the Certificate of Incorporation or By-laws of MODE, (ii) require on the part of MODE any filing with, or any permit, authorization, consent or approval of, any court, arbitrational tribunal, administrative agency or commission or other governmental or regulatory authority or agency (a "Governmental Entity"), (iii) conflict with, result in a breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of, create in any party the right to accelerate, terminate, modify or cancel, or require any notice, consent or waiver under, any contract, lease, sublease, license, sublicense, franchise, permit, indenture, agreement or mortgage for borrowed money, instrument of indebtedness, Security Interest (as defined below) or other arrangement to which MODE is a party or by which MODE is bound or to which its assets is subject, (iv) result in the imposition of any Security Interest upon any assets of MODE, or (v) violate any order, writ, injunction, decree, statute, rule or regulation applicable to MODE or any of its properties or assets. For purposes of this Agreement, "Security Interest" means any mortgage, pledge, security interest, encumbrance, charge or other lien (whether arising by contract or by operation of law).

2.4 Subsidiaries. MODE does not own, directly or indirectly, or have the power to vote, directly or indirectly, any securities of any corporation, partnership, limited liability company or other form of business association.

2.5 Financial Statements. MODE has previously furnished to Emcore complete and accurate copies, all of which are included in Section 2.5 of the Disclosure Schedule, of its (a) audited balance sheets and related statements of income, retained earnings, stockholders' equity and cash flows for the years ended December 31, 1995 and 1996, together with the reports thereon by Arthur Andersen LLP, independent auditors for MODE, and (b) unaudited balance sheet (the "Most Recent Balance Sheet") and related statement of income for the nine months ended September 30, 1997 (the "Balance Sheet Date"). The foregoing financial statements (the "Financial Statements") have been prepared in accordance with United States generally accepted accounting principles ("GAAP") applied on a consistent basis throughout the periods covered thereby (except as may be indicated therein or in the notes thereto and except for normal recurring adjustments in the Most Recent Balance Sheet), fairly present in all material respects the financial condition, results of operations and cash flows of MODE as of the respective dates thereof and for the periods referred to therein, and are consistent with the books and records of MODE.

2.6 Absence of Certain Changes. Since the Balance Sheet Date and except as otherwise set forth in the Disclosure Schedule, (a) there has not been any event or development that would have a material adverse effect upon the business, condition (financial or otherwise), assets or liabilities of MODE (a "MODE Material Adverse Effect") nor has there occurred any event or development that could reasonably be foreseen to result in such a MODE Material Adverse Effect and (b) MODE has not taken any of the actions set forth in subsections (a) through (s) of Section 5.2 below.

2.7 Undisclosed Liabilities. MODE has no liability (whether known or unknown, whether absolute or contingent, whether liquidated or unliquidated and whether due or to become due), except for (a) liabilities shown on the Most Recent Balance Sheet, (b) liabilities that have arisen since the Balance Sheet Date in the ordinary course of business consistent with past custom and practice (including with respect to frequency and amount) ("Ordinary Course of Business"), and (c) contractual liabilities that individually, or in the aggregate, would not have a MODE Material Adverse Effect.

2.8 Taxes.

(a) MODE has filed all material Tax Returns (as defined below) that it was required to file and all such Tax Returns were correct and complete in all material respects. MODE has paid all Taxes (as defined below) that are shown to be due on any such Tax Returns. The accruals and reserves for Taxes set forth on the Most Recent Balance Sheet are sufficient to pay all unpaid Taxes of MODE (excluding, for this purpose, any accruals or reserves for "deferred taxes" or similar items that reflect timing differences in the recognition of income or deductions for tax and financial accounting purposes) attributable to all taxable

periods (and portions of taxable periods) through the date of the Most Recent Balance Sheet, and all Taxes attributable to the period from and after the Balance Sheet Date and continuing through the Closing Date are attributable to the operation of MODE in the Ordinary Course of Business of MODE. Except as set forth in Section 2.8(a) of the Disclosure Schedule, MODE has no actual or potential liability for any Tax obligation of any taxpayer (including, without limitation, any affiliated or combined group of corporations or other entities that included MODE during a prior period) other than MODE. All Taxes that MODE is or was required by law to withhold or collect have been duly withheld or collected and, to the extent required, have been paid to the proper Governmental Entity. For purposes of this Agreement, "Taxes" means all taxes, charges, fees, levies or other similar assessments or liabilities, including, without limitation, income, gross receipts, ad valorem, premium, value-added, excise, real property, personal property, sales, use, transfer, transfer gains, withholding, employment, payroll and franchise taxes imposed by the United States of America or any state, local or foreign government, or any agency thereof, or other political subdivision of the United States or any such government, and any interest, fines, penalties, assessments or additions to tax resulting from, attributable to or incurred in connection with any tax or any contest or dispute thereof. For purposes of this Agreement, "Tax Returns" means all reports, returns, declarations, statements or other information required to be supplied to a taxing authority in connection with Taxes.

(b) MODE has delivered or otherwise made available to Emcore correct and complete copies of all federal income Tax Returns, examination reports and statements of deficiencies assessed against or agreed to by MODE since its inception. No examination or audit of any Tax Returns of MODE by any Governmental Entity is currently in progress or, to the best knowledge of MODE and MODE Stockholders, threatened or contemplated.

(c) MODE is not a "consenting corporation" within the meaning of Section 341(f) of the Internal Revenue Code of 1986, as amended (the "Code"), and none of the assets of MODE are "subsection (f) assets" as defined in Section 341(f) of the Code. MODE has not been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code. MODE is not a party to any Tax allocation or sharing agreement or any Tax indemnity agreement. The Company has not waived any statute of limitations with respect to Taxes or agreed to an extension of time with respect to a Tax assessment or deficiency. MODE has not ever been a member of an affiliated group of corporations, within the meaning of Section 1504 of the Code and has never filed Tax Returns on a combined or consolidated basis with any other corporation, partnership, limited liability company or other form of business association (a "Business Entity") in any jurisdiction. MODE has not agreed to make, nor is it required to make, any adjustments under Section 481(a) of the Code by reason of a change in accounting method or otherwise (other than as a result of the transactions contemplated hereby). MODE has not participated in, nor will participate in, an international boycott within the meaning of Section 999 of the Code.

(d) MODE uses the accrual method of accounting for all income Tax

purposes.

2.9 Assets.

(a) MODE owns or leases all tangible assets necessary for the conduct of its businesses as presently conducted. Such tangible assets, in the aggregate, are free from material defects, have been maintained in accordance with normal industry practice, are in good operating condition and repair (subject to normal wear and tear) and are suitable for the purposes for which they presently are used.

(b) Except as set forth in Section 2.9(b) of the Disclosure Schedule, no asset of MODE (tangible or intangible) is subject to any Security Interest (other than any Security Interest imposed by law, such as carriers', warehousemen's, or mechanic's liens, incurred by MODE, in good faith, in the Ordinary Course of Business of MODE.

(c) Section 2.9(c) of the Disclosure Schedule sets forth (i) a complete and accurate list of all items of tangible personal property owned by MODE as of the Agreement Date, or not owned by MODE but in the possession of or used in the business of MODE (the "Personal Property"), other than individual assets with a book value of less than \$1,500; and (ii) a description of the owner of, and any agreement relating to the use of, each item of Personal Property not owned by MODE and the circumstances under which such Personal Property is used. Each item of Personal Property not owned by MODE is in such condition that upon the return of such property to its owner in its present condition at the end of the relevant lease term or as otherwise contemplated by the applicable agreement between MODE and the owner or lessor thereof, the obligations of MODE to such owner or lessor will be discharged.

2.10 Owned Real Property. MODE does not own, nor has it ever owned, any real property.

2.11 Intellectual Property.

(a) Except as set forth in Section 2.11(a) of the Disclosure Schedule, MODE owns or has the right to use all Intellectual Property (as defined below in this Section 2.11) used in the operation of its business or necessary for the operation of its business as presently proposed to be conducted. Each item of Intellectual Property owned by or used in the operation of the business of MODE at any time during the period covered by the Financial Statements will be owned or available for use by Emcore on identical terms and conditions immediately following the Closing. MODE has taken reasonable measures to protect each item of Intellectual Property and to maintain in confidence all trade secrets and confidential information that it owns or uses. To the best knowledge of MODE, and except as set forth in Section 2.11(a) of the Disclosure Schedule, no other person or Business Entity has any rights to any of the Intellectual Property owned or used by MODE, and no other person or Business Entity is infringing, violating or misappropriating any of the Intellectual Property that MODE

owns or uses. For purposes of this Agreement, "Intellectual Property" means all of the following in the United States and elsewhere in the world (i) patents, patent applications, patent disclosures and all related continuation, continuation-in-part, divisional, reissue, reexamination, utility model, certificate of invention and design patents, patent applications, registrations and applications for registrations, (ii) trademarks, service marks, trade dress, logos, trade names, domain names on the Internet, and corporate names and registrations and applications for registration thereof, (iii) copyrights, mask works and registrations and applications for registration thereof, (iv) computer software, data and documentation, (v) trade secrets and confidential business information, whether patentable or unpatentable and whether or not reduced to practice, know-how, manufacturing and production processes and techniques, research and development information, copyrightable works, financial, marketing and business data, pricing and cost information, business and marketing plans and customer and supplier lists and information, (vi) other proprietary rights relating to any of the foregoing, and (vii) copies and tangible embodiments thereof.

(b) None of the activities or business conducted by MODE infringes, violates or constitutes a misappropriation of (or in the past infringed, violated or constituted a misappropriation of) any rights to any Intellectual Property of any other person or Business Entity. MODE has not received any complaint, claim or notice alleging any such infringement, violation or misappropriation, and to the best knowledge of MODE, there is no basis for any such complaint, claim or notice.

(c) Section 2.11(c) of the Disclosure Schedule identifies each (i) patent or registration that has been issued to MODE with respect to any of its Intellectual Property, (ii) pending patent application or application for registration that MODE has made with respect to any of its Intellectual Property, and (iii) license or other agreement pursuant to which MODE has granted any rights to any third party with respect to any of its Intellectual Property. MODE has delivered to Emcore correct and complete copies of all such patents, registrations, applications, licenses and agreements (as amended to date) and has specifically identified and made available to Emcore correct and complete copies of all other written documentation evidencing ownership of, and any claims or disputes relating to, each such item. Except as set forth in Section 2.11(c) of the Disclosure Schedule, with respect to each item of Intellectual Property that MODE owns:

(A) subject to such rights as have been granted by MODE under license agreements entered into in the Ordinary Course of Business of MODE, MODE possesses all right, title and interest in and to such item, free and clear of any and all licenses, liens, security interests or other encumbrances.

(B) such item is not subject to any outstanding judgment, order, decree, stipulation or injunction; and

(C) MODE has not agreed to indemnify any person or Business Entity for or against any infringement, misappropriation or other conflict with respect to such

item.

(d) Section 2.11(d) of the Disclosure Schedule identifies each item of Intellectual Property used in the operation of the business of MODE at any time during the period covered by the Financial Statements that is owned by a party other than MODE. MODE has supplied Emcore with correct and complete copies of all licenses, sublicenses or other agreements (as amended to date) pursuant to which MODE uses such Intellectual Property, all of which are listed on Section 2.11(d) of the Disclosure Schedule. Except as set forth in Section 2.11(d) of the Disclosure Schedule, with respect to each such item of Intellectual Property:

(i) the license, sublicense or other agreement covering such item is legal, valid, binding, enforceable and in full force and effect;

(ii) such license, sublicense or other agreement will continue to be legal, valid, binding, enforceable and in full force and effect immediately following the Closing in accordance with the terms thereof as in effect prior to the Closing;

(iii) neither MODE nor, to the best knowledge of MODE any other party to such license, sublicense or other agreement is in breach or default, and no event has occurred which with notice or lapse of time would constitute a breach or default or permit termination, modification or acceleration thereunder;

(iv) the underlying item of Intellectual Property is not subject to any outstanding judgment, order, decree, stipulation or injunction;

(v) MODE has not agreed to indemnify any person or Business Entity for or against any interference, infringement, misappropriation or other conflict with respect to such item; and

(vi) no license or other fee is payable upon any transfer or assignment of such license, sublicense or other agreement.

2.12 Real Property Leases. Section 2.12 of the Disclosure Schedule lists and describes briefly all real property leased or subleased to MODE and lists the term of such lease, any extension and expansion options, and the rent payable thereunder. MODE has delivered to Emcore correct and complete copies of the leases and subleases (as amended to date) listed in Section 2.12 of the Disclosure Schedule. With respect to each lease and sublease listed in Section 2.12 of the Disclosure Schedule:

(a) the lease or sublease is legal, valid, binding, enforceable against MODE, and to the best knowledge of MODE, in full force and effect;

(b) the lease or sublease will continue to be legal, valid, binding,

enforceable against MODE, and to the best knowledge of MODE, will remain in full force and effect immediately following the Closing in accordance with the terms thereof as in effect prior to the Closing;

(c) neither MODE nor, to the knowledge of MODE, any other party to the lease or sublease is in breach or default, and no event has occurred which, with notice or lapse of time, would constitute a breach or default or permit termination, modification, or acceleration thereunder; and

(d) MODE has not assigned, transferred, conveyed, mortgaged, deeded in trust or encumbered any interest in the leasehold or subleasehold.

2.13 Contracts.

(a) Section 2.13 of the Disclosure Schedule lists the following arrangements (including, without limitation, written agreements) to which MODE is a party:

(i) any arrangement (or group of related arrangements) for the lease of personal property from or to third parties providing for lease payments in excess of \$15,000 per annum;

(ii) any arrangement (or group of related arrangements), including without limitation any OEM, VAR, distribution or other arrangement, which involves or is expected to involve more than the sum of \$15,000, or in which MODE has granted "most favored nation" pricing provisions or marketing or distribution rights relating to any products or territory or has agreed to purchase a minimum quantity of goods or services or has agreed to purchase goods or services exclusively from a certain party;

(iii) any arrangement establishing a partnership or joint venture;

(iv) any arrangement (or group of related arrangements) under which it has created, incurred, assumed or guaranteed (or may create, incur, assume or guarantee) indebtedness (including capitalized lease obligations) involving more than \$5,000 or under which it has imposed (or may impose) a Security Interest on any of its assets, tangible or intangible;

(v) any arrangement concerning confidentiality, nonsolicitation or noncompetition (other than MODE's standard form of confidentiality, nonsolicitation and noncompetition agreement (a) with its employees, a copy of which has been provided to Emcore or (b) entered into in the Ordinary Course of Business of MODE);

(vi) any arrangement with any of its Affiliates (for the purposes of this Agreement, "Affiliate" shall mean (A) in the case of an individual, the members of the immediate family (including parents, siblings and children) of (i) the individual and (ii) his or

her spouse and (iii) any Business Entity that directly or indirectly, through one or more intermediaries controls, or is controlled by, or is under common control with any of the foregoing individuals, or (B) in the case of a Business Entity, another Business Entity or a person that directly or indirectly, through one or more intermediaries controls, or is controlled by, or is under common control with the Business Entity);

(vii) any arrangement under which the consequences of a default or termination could have a MODE Material Adverse Effect; and

(viii) any other arrangement (or group of related written arrangements) either involving more than \$5,000 or not entered into in the Ordinary Course of Business of MODE.

(ix) any agreement, contract, mortgage, indenture, lease, instrument, license, franchise, permit, concession, arrangement, commitment or authorization which may be, by its terms, terminated or breached by reason of the execution of this Agreement, the Merger, or the consummation of the transactions contemplated hereby or thereby;

(x) except for trade indebtedness incurred in the Ordinary Course of Business of MODE, any instrument evidencing or related in any way to indebtedness in excess of \$5,000 incurred in the acquisition of companies or other entities or indebtedness in excess of \$5,000 for borrowed money by way of direct loan, sale of debt securities, purchase money obligation, conditional sale, guarantee, indemnification or otherwise;

(xi) any license agreement, either as licensor or licensee,

(xii) any contract containing covenants purporting to limit MODE's freedom to compete in any line of business or in any geographic area or with any third party;

(xiii) any agreement, contract or commitment relating to capital expenditures and involving future obligations in excess of \$15,000; or

(xiv) any other agreement, contract or commitment which is material to MODE.

(b) MODE has delivered to Emcore (i) a complete and accurate copy of each written arrangement (as amended to date) listed in Section 2.13 of the Disclosure Schedule and (ii) a complete and accurate description of each oral arrangement listed in Section 2.13 of the Disclosure Schedule. With respect to each written arrangement so listed: (i) the written arrangement is legal, valid, binding and enforceable against MODE, and to the best knowledge of MODE, in full force and effect; (ii) the written arrangement will continue to be legal, valid, binding and enforceable against MODE, and to the best knowledge of MODE, in full force and effect immediately following the Closing in accordance with the terms thereof as in effect prior to the Closing; and (iii) neither MODE nor, to the best

knowledge of MODE, any other party, is in breach or default, and no event has occurred which with notice or lapse of time would constitute a breach or default or permit termination, modification, or acceleration, under the written arrangement.

2.14 Accounts Receivable; Customer Contracts in Progress. All accounts receivable of MODE reflected on (i) the Most Recent Balance Sheet (net of the applicable reserve for bad debts and sales returns shown on the Most Recent Balance Sheet) and (ii) the financial or accounting records of MODE that have arisen since September 30, 1997 (collectively, the "Accounts Receivable") are valid receivables of MODE subject to no setoffs or counterclaims. Section 2.14 of the Disclosure Schedule sets forth a complete and accurate list of the Accounts Receivable, including the aging thereof as of the Agreement Date.

2.15 Powers of Attorney. There are no outstanding powers of attorney executed on behalf of MODE.

2.16 Insurance. Section 2.16 of the Disclosure Schedule sets forth the following information with respect to each insurance policy (including fire, theft, casualty, general liability, workers' compensation, business interruption, environmental, product liability and automobile insurance policies and bond and surety arrangements but excluding medical, dental and life insurance policies otherwise set forth in Section 2.20 of the Disclosure Schedule) to which MODE has been a party, a named insured, or otherwise the beneficiary of coverage at any time within the past two years:

(a) the name of the insurer, the name of the policyholder and the name of each covered insured;

(b) the policy number and the period of coverage;

(c) the scope (including an indication of whether the coverage was on a claims made, occurrence, or other basis) and amount (including a description of how deductibles and ceilings are calculated and operate) of coverage; and

(d) a description of any retroactive premium adjustments or other loss-sharing arrangements.

Except as set forth in Section 2.16 of the Disclosure Schedule, (i) each such insurance policy is enforceable and in full force and effect as to MODE, and to the best knowledge of MODE, as to the insurer; (ii) such policy will continue to be enforceable and in full force and effect as to MODE, and to the best knowledge of MODE, as to the insurer, immediately following the Closing in accordance with the terms thereof as in effect prior to the Closing; (iii) MODE is not in breach or default (including with respect to the payment of premiums or the giving of notices) under such policy, and no event has occurred which, with notice or the lapse of time, would constitute such a breach or default or permit termination, modification or acceleration, under such policy; and (iv) MODE has not received any notice from the insurer

disclaiming coverage or reserving rights with respect to a particular claim or such policy in general. Section 2.16 of the Disclosure Schedule identifies all claims asserted by MODE pursuant to any insurance policy in excess of \$10,000 since its inception and describes the nature and status of each such claim. MODE has not incurred any loss, damage, expense or liability in excess of \$10,000 covered by any such insurance policy for which it has not properly asserted a claim under such policy. MODE is covered by insurance in scope and amount customary and reasonable for the businesses in which it is engaged.

2.17 Litigation. Except as identified and described in Section 2.17 of the Disclosure Schedule, (a) there is no action, suit, proceeding or investigation to which MODE is a party (either as a plaintiff or defendant) pending or, to the best knowledge of MODE, threatened before any court, Governmental Entity or arbitrator, and to the best knowledge of MODE, there is no basis for any such action, suit, proceeding or investigation; (b) neither MODE nor, to the best knowledge of MODE, any officer, director or employee of MODE has been permanently or temporarily enjoined by any order, judgment or decree of any court or Governmental Entity from engaging in or continuing to conduct the business of MODE; and (c) no order, judgment or decree of any court or Governmental Entity exists that enjoins or requires MODE to take any action of any kind with respect to its business, assets or properties. None of the actions, suits, proceedings or investigations set forth in Section 2.17 of the Disclosure Schedule, individually or collectively, could reasonably be expected to have a MODE Material Adverse Effect.

2.18 Product and Service Warranties. Except as set forth in Section 2.18 of the Disclosure Schedule, no product or service manufactured, sold, leased or delivered by MODE is subject to any guaranty, warranty, right of return or other indemnity other than (a) MODE's applicable standard terms and conditions of sale or lease that are set forth in Section 2.18 of the Disclosure Schedule and (b) manufacturers' pass-through warranties. Section 2.18 of the Disclosure Schedule sets forth the aggregate expenses incurred by MODE in fulfilling its obligations under its guaranty, warranty, right of return and indemnity provisions during each of the fiscal years and the interim period covered by the Financial Statements.

2.19 Employees and Subcontractors.

(a) Section 2.19(a) of the Disclosure Schedule contains a list of (i) all employees of MODE (the "Employees"), along with the position, date of hire, annual rate of compensation (or, with respect to Employees compensated on an hourly or per diem basis, the hourly or per diem rate of compensation) and estimated or target annual incentive compensation of each such Employee, (ii) all employment contracts or agreements relating to employment, and (iii) all Employees who have executed confidentiality, noncompetition or nonsolicitation agreements. None of the Employees is a party to any collective bargaining agreement. MODE has not experienced any strikes, grievances, claims of unfair labor practices or other collective bargaining disputes and no organizational effort is presently being made or threatened by or on behalf of any labor union with respect to the Employees.

(b) Section 2.19(b) of the Disclosure Schedule sets forth (i) a list of all subcontractors currently performing services or under contract to perform future services for MODE and (ii) the start date, type of services to be provided, estimated completion date and hourly or per diem pay rate of such subcontractors.

(c) To the best knowledge of MODE, no key employee or group of employees employed by MODE has any plans to terminate employment with MODE.

2.20 Employee Benefits.

(a) Section 2.20(a) of the Disclosure Schedule contains a complete and accurate list of all Employee Benefit Plans (as defined below in this Section 2.20(a)) maintained, or contributed to, by MODE, or any ERISA Affiliate (as defined below in this Section 2.20(a) within six years prior to the Closing Date). For purposes of this Agreement, "Employee Benefit Plan" means any "employee pension benefit plan" (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA")), any "employee welfare benefit plan" (as defined in Section 3(1) of ERISA), and any other written or oral plan, agreement or arrangement involving direct or indirect compensation, including, without limitation, insurance coverage, employment agreements, consulting agreements, vacation benefits, severance benefits, disability benefits, deferred compensation, bonuses, stock options, stock purchase, phantom stock, stock appreciation or other forms of incentive compensation or post-retirement compensation. For purposes of this Agreement, "ERISA Affiliate" means any member of (i) a controlled group of corporations (as defined in Section 414(b) of the Code), (ii) a group of trades or businesses under common control (as defined in Section 414(c) of the Code), (iii) an affiliated service group (as defined under Section 414(m) of the Code or the regulations under Section 414(o) of the Code), any of which at any time after December 31, 1989 included MODE. Complete and accurate copies of (i) all Employee Benefit Plans that have been reduced to writing and any amendments thereto, (ii) written summaries of all unwritten Employee Benefit Plans, (iii) all related trust agreements, insurance contracts and summary plan descriptions that exist, and (iv) all annual reports filed on IRS Form 5500, 5500C or 5500R for the last three plan years for each Employee Benefit Plan, and (v) all qualification letters issued by the Internal Revenue Service with respect to every Employee Benefit Plan that is intended to qualify under Section 401(a) of the Code, have been delivered to Emcore. Each Employee Benefit Plan has been administered substantially in all material respects in accordance with its terms, and each of MODE and the ERISA Affiliates has met its obligations with respect to such Employee Benefit Plan in all material respects and has made all required contributions thereto. MODE and all Employee Benefit Plans have complied in all material respects in form and operation with the applicable provisions of ERISA, the Code and other applicable federal and state laws and the regulations thereunder. Each Employee Benefit Plan that is intended to qualify under Section 401(a) of the Code is so qualified. Each Employee Benefit Plan that is intended to qualify under Section 401(a) of the Code is so qualified and has received a favorable determination letter from the Internal Revenue Service regarding such qualified status and covering amendments required under the Tax Reform Act of 1986, the Unemployment Compensation Amendments

of 1992, the Omnibus Reconciliation Act of 1993, the final nondiscrimination regulations under Section 401(a)(4) of the Code, and all other amendments required to be filed within the TRA '86 remedial amendment period described in Internal Revenue Procedure 95-12. Nothing has occurred that could cause a loss of such qualification and no loss of qualification has been threatened by the Internal Revenue Service.

(b) To the best knowledge of MODE, there are no inquiries or investigations by any Governmental Entity, termination proceedings or other claims (except claims for benefits payable in the normal operation of the Employee Benefit Plans and proceedings with respect to qualified domestic relations orders), suits or proceedings against or involving any Employee Benefit Plan or asserting any rights or claims to benefits under any Employee Benefit Plan other than routine claims for benefits.

(c) Neither MODE nor any ERISA Affiliate has ever maintained an Employee Benefit Plan subject to Section 412 of the Code, Part 3 of Subtitle B of Title I or ERISA, or Title IV of ERISA. At no time has MODE or any ERISA Affiliate been obligated to contribute to any "multiemployer plan" as defined in Section 3(37) of ERISA. No act or omission has occurred and no condition exists with respect to any Employee Benefit Plan maintained by MODE or any ERISA Affiliate that would subject MODE or any ERISA Affiliate to any fine, penalty, tax or liability of any kind imposed under ERISA or the Code that would have a MODE Material Adverse Effect. To the best knowledge of MODE, no prohibited transaction (as defined in Section 406 of ERISA or Section 4975 of the Code) has occurred. No Employee Benefit Plan, plan documentation or agreement, summary plan description or other written communication distributed generally to employees by its terms prohibits MODE from amending or terminating any Employee Benefit Plan which is an employee benefit plan as defined in Section 3(3) of ERISA and any such Employee Benefit Plan may be terminated without liability to MODE or Emcore, except for benefits accrued through the date of termination. Except as set forth in Section 2.20(c) of the Disclosure Schedule, no former employees participate in any Employee Benefit Plan. Neither MODE nor any ERISA Affiliate maintains any plan or arrangement pursuant to which former employees or other service providers are entitled to post-retirement health care benefits, except to the extent required by Section 4980B of the Code. No Employee Benefit Plan that is intended to be qualified under Section 401(a) of the Code and its trust exempt from tax under Section 501(a) of the Code includes in its assets any securities issued by MODE. No Employee Benefit Plan has been subject to tax.

(d) Section 2.20(d) of the Disclosure Schedule discloses each: (i) agreement with any director, executive officer or other key employee of MODE (A) the benefits of which are contingent, in whole or in part, or the terms of which are materially altered, upon the occurrence of a transaction involving MODE of the nature of any of the transactions contemplated by this Agreement, (B) providing any term of employment or compensation guarantee, or (C) providing severance benefits or other benefits after the termination of employment of such director, executive officer or key employee; (ii) agreement, plan or arrangement under which any person may receive payments from MODE

that may be subject to the tax imposed by Section 4999 of the Code or included in the determination of such person's "parachute payment" under Section 280G of the Code; and (iii) agreement or plan binding MODE, including, without limitation, any stock option plan, stock appreciation right plan, restricted stock plan, stock purchase plan, severance benefit plan, or any other Employee Benefit Plan, any of the benefits of which will be increased, or the vesting of the benefits of which will be accelerated, in whole or in part, by the occurrence of any of the transactions contemplated by this Agreement or the value of any of the benefits of which will be calculated on the basis of any of the transactions contemplated by this Agreement.

2.21 Legal Compliance. MODE and the conduct and operations of its business are and have been in compliance with each law (including rules and regulations thereunder) of any federal, state, local or foreign government, or any Governmental Entity that (a) affects or relates to this Agreement or the transactions contemplated hereby or (b) is applicable to MODE or its business the noncompliance with which could reasonably be expected to result in a MODE Material Adverse Effect.

2.22 Permits. Section 2.22 of the Disclosure Schedule sets forth a list of all material permits, licenses, registrations, certificates, orders or approvals from any Governmental Entity (including, without limitation, those issued or required under Environmental Laws and those relating to the occupancy or use of owned or leased real property) ("Permits") issued to or held by MODE. Such listed Permits are the only Permits that are required for MODE to conduct its business as presently conducted or as proposed to be conducted. Each such Permit is in full force and effect and, to the best knowledge of MODE, no suspension or cancellation of such Permit is threatened and there is no basis for believing that such Permit will not be renewable upon expiration. Except as set forth in Section 2.22 of the Disclosure Schedule, each such Permit will continue in full force and effect following the Closing.

2.23 Certain Business Relationships with Affiliates. Except as set forth in Section 2.23 of the Disclosure Schedule, no Affiliate of MODE (a) owns any property or right, tangible or intangible, which is used in the business of MODE (b) has any claim or cause of action against MODE, or (c) is a party to any contract or other arrangement, written or verbal, with MODE.

2.24 Books and Records. The minute books and other similar records of MODE contain complete and accurate records of all actions taken at any meetings of MODE's stockholders, Board of Directors or any committee thereof and of all written consents executed in lieu of the holding of any such meeting.

2.25 Customers and Suppliers. No customer of MODE has indicated within the past year that it will stop, or decrease the rate of, buying materials, products or services from MODE. Section 2.25 of the Disclosure Schedule identifies (a) each customer of MODE, that purchased products in excess of \$10,000 during (i) the last full fiscal year and (ii) the first nine months of 1997, respectively, and the amount of revenues accounted for by such

customer during each such period, and (b) each supplier that is the sole supplier of any significant product, component or service used by MODE which is not readily available from other sources. Except as set forth in Section 2.25 of the Disclosure Schedule, MODE has good customer relations and none of the customers of MODE has notified MODE that it intends to discontinue its relationship with MODE.

2.26 Prepayments, Prebilled Invoices and Deposits.

(a) Section 2.26(a) of the Disclosure Schedule sets forth (i) all prepayments, prebilled invoices and deposits in excess of \$1,000 that have been received by MODE as of the Agreement Date from customers for products to be shipped, or services to be performed, after the Closing Date, and (ii) with respect to each such prepayment, prebilled invoice or deposit, (A) the party and contract credited, (B) the date received or invoiced, (C) the products and/or services to be delivered, and (D) the conditions for the return of such prepayment, prebilled invoice or deposit. All such prepayments, prebilled invoices and deposits prior to September 30, 1997 are properly accrued for on the Most Recent Balance Sheet in accordance with GAAP applied on a consistent basis with the past practice of MODE.

(b) Section 2.26(b) of the Disclosure Schedule sets forth (i) all prepayments, prebilled invoices and deposits in excess of \$1,000 that have been made or paid by MODE as of the Agreement Date for products to be purchased, services to be performed or other benefits to be received after the Closing Date, and (ii) with respect to each such prepayment, prebilled invoice or deposit, (A) the party to whom such prepayment, prebilled invoice or deposit was made or paid, (B) the date made or paid, (C) the products and/or services to be delivered, and (D) a summary of the conditions for the return of such prepayment, prebilled invoice or deposit. All such prepayments, prebilled invoices and deposits prior to September 30, 1997 are properly accrued for on the Most Recent Balance Sheet in accordance with GAAP applied on a consistent basis with the past practices of MODE.

2.27 Banking Facilities. Section 2.27 of the Disclosure Schedule identifies:

(a) Each bank, savings and loan or similar financial institution in which MODE has an account or safety deposit box and the numbers of the accounts or safety deposit boxes maintained by the Company; and

(b) The names of all persons authorized to draw on each such account or to have access to any such safety deposit box facility, together with a description of the authority (and conditions thereof, if any) or each such person with respect thereto.

2.28 Inventories. All of the inventory recorded on the Most Recent Balance Sheet consists of, and all inventory on the Closing Date will consist of, items of a quality usable or saleable within six (6) months in the ordinary course of business consistent with past practices

and are and will be in qualities sufficient for the normal operation of the business of MODE in accordance with past practice.

2.29 Products. Each of the products produced or sold by MODE (i) is, and at all times has been, in compliance in all material respects with all applicable federal, state, local and foreign laws and regulations and (ii) is, and at all relevant times has been, fit for the ordinary purposes for which it is intended to be used and conforms in all material respects to any promises or affirmations of fact made in connection with its sale. There is no known design defect with respect to any of such products and each of such products contains adequate warnings, presented in a reasonably prominent manner, in accordance with applicable laws and current industry practice with respect to its use. Except as set forth in Section 2.29 of the Disclosure Schedule, MODE has no products placed with its customers under an understanding permitting its return to MODE other than pursuant a breach of warranty.

2.30 Environmental Compliance. Except for matters disclosed in Section 2.30 of the Disclosure Schedule and except for matters which, individually or in the aggregate, will not have a MODE Material Adverse Effect, (a) the properties, operations and activities of MODE are in compliance with all applicable Environmental Laws; (b) MODE and the properties and operations of MODE are not subject to any existing, pending or, to the knowledge of MODE, threatened action, suit, investigation, inquiry or proceeding by or before any court or governmental authority under any Environmental Law; (c) all permits, licenses and similar authorizations, if any, required to be obtained or filed by MODE under any Environmental Law in connection with the business of MODE have been obtained or filed and are valid and currently in full force and effect or have been applied for; (d) there has been no release of any hazardous substance, pollutant or contaminant into the environment by MODE or in connection with its properties or operations; (e) there has been no exposure of any Person or property to any hazardous substance, pollutant or contaminant in connection with the properties, operations and activities of MODE; and (f) MODE has made available to Emcore all internal and external environmental audits and studies and all correspondence on substantial environmental matters (in each case relevant to MODE) in the possession of MODE.

"Environmental Law or Laws" shall mean any and all laws, statutes, ordinances, rules, regulations, or orders of any governmental authority pertaining to health or the environment in effect as of the date of this Agreement, including the Clean Air Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), the Federal Water Pollution Control Act, the Occupational Safety and Health Act of 1970, the Resource Conservation and Recovery Act of 1976 ("RCRA"), the Toxic Substances Control Act, the Hazardous Material Transportation Act, and the Oil Pollution Act of 1990, all as amended through the date of this Agreement, any state or local Laws implementing the foregoing federal laws, and any state laws pertaining to the handling of oil and gas exploration and production wastes or the use, maintenance, and closure of pits and impoundments, and all other environmental conservation or protection laws. For purposes of this Agreement, the

terms "hazardous substance" and "release" have the meanings specified in CERCLA; provided, however, that to the extent any applicable laws of a state or locality establish a meaning for "hazardous substance" or "release" that is broader than the meaning specified in CERCLA, such broader meaning shall apply, and provided, further, that the term "hazardous substance" shall include all dehydration and treating wastes, waste (or spilled) oil, and waste (or spilled) petroleum products and (to the extent in excess of background levels) radioactive material, even if such are specifically exempt from classification as hazardous substances pursuant to CERCLA or RCRA or analogous state or local Laws.

2.31 Brokers' Fees. Neither MODE nor any of the Principal MODE Stockholders has any liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

2.32 MODE and MODE Stockholder Action. The Board of Directors of MODE has by unanimous written action (a) determined that the Merger is fair and in the best interests of MODE and the MODE Stockholders and (b) adopted this Agreement in accordance with the provisions of the Delaware Law. The MODE Stockholders have by unanimous written action adopted and approved this Agreement and the Merger.

2.33 Affiliates. There are no Affiliates of MODE other than the persons and or entities identified on Section 2.33 of the Disclosure Schedule.

2.34 Tax Matters.

(a) Neither MODE nor, to the knowledge of MODE, any of its Affiliates has taken or agreed to take any action that would prevent the Merger from constituting a reorganization qualifying under the provisions of Section 368(a) of the Code.

(b) There is a no plan or intention on the part of the MODE Stockholders who own one percent (1%) or more of the MODE Shares (by value), and to the best knowledge of MODE, there is no plan or intention on the part of remaining MODE Stockholders, to sell, exchange, or otherwise dispose of a number of Merger Shares that would reduce such MODE Stockholders' ownership of Emcore Common Stock to a number of shares having a value, as of the date of the Merger, of less than fifty percent (50%) of the value of all the formerly outstanding MODE Shares as of the same date. For purposes of this representation, MODE Shares exchanged for cash in lieu of fractional shares of Emcore Common Stock or surrendered by dissenters, if any, are to be treated as outstanding MODE Shares on the date of the Merger. Moreover, MODE Shares and shares of Emcore Common Stock held by MODE shareholders and otherwise sold, redeemed, or disposed of prior to the Merger, or subsequent to the Merger pursuant to a plan or intention as of the date of the Merger, are also to be taken into account in connection with this representation.

(c) At the time of the Merger, MODE will not have outstanding any warrants, options, convertible securities, or any other type of right pursuant to which any

person could acquire stock in MODE that, if exercised or converted, would affect Emcore's acquisition or retention of "control" of MODE. For purposes of this Section 2.34 and Section 4.11 below, "control" shall consist of direct ownership of shares of stock possessing at least eighty percent (80%) of the total combined voting power of shares of all classes of stock entitled to vote and at least eighty percent (80%) of the total number of shares of all other classes of stock of MODE.

(d) MODE is not an investment company as defined in section 368(a)(2)(F)(iii) and (iv) of the Code.

(e) MODE is not under the jurisdiction of a court in a title 11 or similar case within the meaning of section 368(a)(3)(A) of the Code.

(f) MODE has not used any assets to make distributions, redemptions or other payments in respect of its stock (except for regular, normal distributions) or in respect of rights to acquire such stock that were made in contemplation of the Merger or that are related thereto, and MODE's expenses or liabilities incurred in connection with Merger will not exceed \$200,000.

2.35 Disclosure. No representation or warranty by MODE contained in this Agreement, and no statement contained in the Disclosure Schedule or any other document, certificate or other instrument delivered to or to be delivered by or on behalf of MODE pursuant to this Agreement, and no other statement made by MODE, or any of its representatives in connection with this Agreement, contains or will contain any untrue statement of a material fact or omits or will omit to state any material fact necessary, in light of the circumstances under which it was or will be made, in order to make the statements herein or therein not misleading.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF THE PRINCIPAL MODE STOCKHOLDERS

Each Principal MODE Stockholder hereby, severally and not jointly, represents and warrants to Emcore as follows:

3.1 Authority.

(a) Such Principal MODE Stockholder has all requisite power and authority to execute and deliver the Fundamental Agreements and to perform his, her or its obligations

under the Fundamental Agreements. The Fundamental Agreements have each been (or in the case of the Escrow Agreement, shall be when delivered) duly and validly executed and delivered by such stockholder, and each constitutes (or, in the case of the Escrow Agreement, shall constitute) a valid and binding obligation of such stockholder, enforceable against such stockholder in accordance with its terms.

(b) Subject to compliance with (a) the applicable requirements of the Securities Act, (b) any applicable state securities laws, and (c) Delaware Law, and except as set forth on Section 2.3 of the Disclosure Schedule, the execution and delivery of the Fundamental Agreements by such stockholder and the consummation by such stockholder of the transactions contemplated thereby will not (i) require on the part of such stockholder any filing with, or permit, authorization, consent or approval of, any Governmental Entity, (ii) conflict with, result in breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of, create in any party any right to accelerate, terminate, modify or cancel, or require any notice, consent or waiver under, any contract, lease, sublease, license, sublicense, franchise, permit, indenture, agreement or mortgage for borrowed money, instrument of indebtedness, Security Interest or other arrangement to which such stockholder is a party or by which such stockholder is bound or to which any of its assets are subject, or (iii) violate any order, writ, injunction, decree, statute, rule or regulation applicable to such stockholder or any of its properties or assets.

(c) For purposes of this Section 3.1, all references to the term "Fundamental Agreements" shall be deemed to include the Employment Agreements (as defined in Section 6.1(f)) and the Registration Rights Agreement (as defined in Section 6.2(h)).

3.2 Investment Representations.

(a) Such Principal MODE Stockholder is acquiring the Merger Shares for his, her or its own account for investment only, and not with a view to, or for sale in connection with, any distribution of such Merger Shares in violation of the Securities Act or any rule or regulation under the Securities Act.

(b) Such Principal MODE Stockholder has had adequate opportunity to obtain from representatives of Emcore such information, in addition to the representations set forth in the Agreement, as is necessary to evaluate the merits and risks of his, her or its investment in Emcore.

(c) Such Principal MODE Stockholder has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the acquisition of the Merger Shares to be issued to him, her or it and to make an informed investment decision with respect to such investment.

(d) Such Principal MODE Stockholder understands that the Merger Shares have not been registered under the Securities Act and are "restricted securities" within the

meaning of Rule 144 under the Securities Act; and the Merger Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available.

(e) A legend substantially in the following form will be placed on the certificate representing the Merger Shares to be issued to such stockholder:

"The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to Emcore Corporation to the effect that such registration is not required."

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF EMCORE AND ACQUISITION SUBSIDIARY

Each of Emcore and Acquisition Subsidiary represents and warrants to MODE as follows:

4.1 Organization. Emcore is a corporation duly organized, validly existing and in good standing under the laws of the State of New Jersey. Acquisition Subsidiary is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. Emcore is duly qualified to conduct business and is in corporate and tax good standing under the laws of each jurisdiction in which the nature of its businesses or the ownership or leasing of its properties requires such qualification, except for any jurisdiction in which the failure to so qualify would not have a material adverse effect on the business, condition (financial or otherwise) assets or liabilities of Emcore ("Emcore Material Adverse Effect"). Emcore has all requisite corporate power and authority to carry on the business in which it is engaged and to own and use the properties owned and used by it. Each of Emcore and the Acquisition Subsidiary has furnished to MODE true and complete copies of its Certificate of Incorporation and By-laws, each as amended and as in effect on the Agreement Date. Each of Emcore and the Acquisition Subsidiary has at all times complied with, and is not in default under or in violation of, any provision of its Certificate of Incorporation and By-laws.

4.2 Capitalization. The authorized capital stock of Emcore consists of: (i) 23,529,411 shares of common stock, no par value per share, of which 7,854,240 shares are issued and outstanding, and (ii) 5,882,353 shares of preferred stock, no par value per share, of which no shares are issued and outstanding. Emcore has reserved 647,059 shares, in the aggregate, for issuance under its 1995 Incentive and Non-Statutory Stock Option Plan, as amended (the "Emcore Option Plan"). There are 510,465, in the aggregate, options issued

and outstanding under the Emcore Option Plan (the "Emcore Options"). Emcore has issued certain warrants for the purchase of 1,737,410 shares, in the aggregate, of its common stock (the "Emcore Warrants"). Except for the Emcore Options and the Emcore Warrants, and except as otherwise set forth in the SEC Documents (as defined in Section 4.6), there are no outstanding or authorized options, warrants, rights, agreements or commitments to which Emcore is a party or which are binding upon Emcore providing for the issuance, disposition or acquisition of any of its capital stock.

4.3 Authorization of Transaction. Each of Emcore and the Acquisition Subsidiary (in the case of agreements to which the Acquisition Subsidiary is a party) has all requisite power and authority to execute and deliver the Fundamental Agreements and to perform its obligations under the Fundamental Agreements. The execution and delivery of the Fundamental Agreements by each of Emcore and the Acquisition Subsidiary (in the case of agreements to which the Acquisition Subsidiary is a party) and the performance of the Fundamental Agreements and the consummation of the transactions contemplated thereby by Emcore and the Acquisition Subsidiary has been (or, in the case of the Escrow Agreement, shall be when delivered) duly and validly authorized by all necessary corporate action on the part of Emcore and the Acquisition Subsidiary (in the case of agreements to which the Acquisition Subsidiary is a party). The Fundamental Agreements have been (or, in the case of the Escrow Agreement, shall be when delivered) duly and validly executed and delivered by each of Emcore and the Acquisition Subsidiary (in the case of agreements to which the Acquisition Subsidiary is a party) and constitute valid and binding obligations of Emcore and the Acquisition Subsidiary (in the case of agreements to which the Acquisition Subsidiary is a party) enforceable against each of them in accordance with their terms.

4.4 Noncontravention. Subject to compliance with (a) the applicable requirements of the Securities Act, (b) any applicable state securities laws, and (c) Delaware Law, the execution and delivery of the Fundamental Agreements by Emcore and the consummation by Emcore of the transactions contemplated thereby will not (i) conflict with or violate any provision of the charter or By-laws of Emcore, (ii) require on the part of Emcore any filing with, or permit, authorization, consent or approval of, any Governmental Entity, (iii) conflict with, result in breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of, create in any party any right to accelerate, terminate, modify or cancel, or require any notice, consent or waiver under, any contract, lease, sublease, license, sublicense, franchise, permit, indenture, agreement or mortgage for borrowed money, instrument of indebtedness, Security Interest or other arrangement to which Emcore is a party or by which Emcore is bound or to which any of its assets are subject, or (iv) violate any order, writ, injunction, decree, statute, rule or regulation applicable to Emcore or any of its properties or assets.

4.5 Brokers' Fees. Emcore has no liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement.

4.6 SEC Filings. Emcore has timely filed with the Securities and Exchange Commission (the "SEC"), and has delivered or made available to the MODE Stockholders, true and complete copies of, all forms, reports, schedules, statements and other documents (collectively, the "SEC Documents") required to be filed by it under the Securities Act or the Securities Exchange Act of 1934 (the "Exchange Act"). The SEC Documents were prepared in accordance with the requirements of the Securities Act or the Exchange Act, as the case may be, and the published rules and regulations of the SEC thereunder, and the SEC Documents when filed, did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The audited financial statements and unaudited interim financial statements of Emcore included in the SEC Documents, have been prepared in accordance with GAAP applied on a consistent basis throughout the periods covered thereby (except as may be indicated therein or the notes thereto and in the case of quarterly financial statements, as permitted by Form 10-Q under the Exchange Act) and fairly present the financial position and the results of operations and cash flows (and changes in financial position, if any) of Emcore as of the respective dates and for the respective periods thereof, except that the unaudited interim quarterly financial statements were or are subject to normal and recurring year-end adjustments which were or are not expected to be material in amount.

4.7 Intellectual Property.

(a) Except as otherwise set forth in the SEC Documents (as defined in Section 4.6 above), Emcore owns or has the right to use all Intellectual Property (as defined in Section 2.11) used in the operation of its business or necessary for the operation of its business as presently proposed to be conducted. Each item of Intellectual Property owned by or used in the operation of the business of Emcore at any time during the period covered by the SEC Documents will be owned or available for use by Emcore on identical terms and conditions immediately following the Closing. Emcore has taken reasonable measures to protect each item of Intellectual Property and to maintain in confidence all trade secrets and confidential information that it owns or uses. To the best knowledge of Emcore, and except as otherwise set forth in the SEC Documents (as defined in Section 4.6 above), no other person or Business Entity has any rights to any of the Intellectual Property owned or used by Emcore, and no other person or Business Entity is infringing, violating or misappropriating any of the Intellectual Property that Emcore owns or uses.

(b) Except as otherwise set forth in the SEC Documents (a) none of the activities or business conducted by Emcore infringes, violates or constitutes a misappropriation of (or in the past infringed, violated or constituted a misappropriation of) any rights to any Intellectual Property of any other person or Business Entity; (b) Emcore has not received any complaint, claim or notice alleging any such infringement, violation or misappropriation, and to the best knowledge of Emcore, there is no basis for any such complaint, claim or notice.

4.8 Litigation. Except as otherwise set forth in the SEC Documents, (a) there is no action, suit, proceeding or investigation to which Emcore is a party (either as a plaintiff or defendant) pending or, to the best knowledge of Emcore, threatened before any court, Governmental Entity or arbitrator, and to the best knowledge of Emcore, there is no basis for any such action, suit, proceeding or investigation; (b) neither Emcore nor, to the best knowledge of Emcore, any officer, director or employee of Emcore has been permanently or temporarily enjoined by any order, judgment or decree of any court or Governmental Entity from engaging in or continuing to conduct the business of Emcore; and (c) no order, judgment or decree of any court or Governmental Entity exists that enjoins or requires Emcore to take any action of any kind with respect to its business, assets or properties.

4.9 Legal Compliance. Emcore and the conduct and operations of its business are and have been in compliance with each law (including rules and regulations thereunder) of any federal, state, local or foreign government, or any Governmental Entity that (a) affects or relates to this Agreement or the transactions contemplated hereby or (b) is applicable to Emcore or its business, the noncompliance with which could reasonably be expected to result in an Emcore Material Adverse Effect.

4.10 Absence of Certain Changes. Since June 30, 1997, except as otherwise disclosed in Emcore's press release dated September 9, 1997, (a) there has not been any event or development that would have an Emcore Material Adverse Effect nor has there occurred any event or development that could reasonably be foreseen to result in such an Emcore Material Adverse Effect.

4.11 Tax Matters.

(a) Neither Emcore nor, to the knowledge of Emcore, any of its Affiliates has taken or agreed to take any action that would prevent the Merger from constituting a reorganization qualifying under the provisions of Section 368(a) of the Code. In making this representation, Emcore is relying on MODE's representation contained in Section 2.34 above.

(b) Following the Merger, MODE will hold at least ninety percent (90%) of the fair market value of its net assets and at least seventy percent (70%) of the fair market value of its gross assets held immediately prior to the Merger and at least ninety percent (90%) of the fair market value of Acquisition Subsidiary's net assets and at least seventy percent (70%) of the fair market value of Acquisition Subsidiary's gross assets held immediately prior to the Merger. For purposes of determining the percentage of MODE's and Acquisition Subsidiary's net and gross assets held by MODE immediately following the Merger, the following assets will be treated as property held by MODE or Acquisition Subsidiary, as the case may be, immediately prior but not subsequent to the Merger: (i) assets used by MODE or Acquisition Subsidiary (other than assets transferred from Emcore to Acquisition Subsidiary for such purpose) to pay expenses or liabilities incurred in connection with the Merger, including without limitation amounts paid to dissenters, if any, and reorganization expenses, and (ii) assets used to make distributions, redemptions or other

payments in respect of stock of MODE (except for regular, normal distributions) or in respect of rights to acquire such stock that are made in contemplation of the Merger or that are related thereto. In making this representation, Emcore is relying on MODE's representation contained in Section 2.34.

(c) Emcore has no plan or intention to (i) liquidate MODE, (ii) merge MODE with or into another corporation, (iii) sell or otherwise dispose of the stock of MODE (except for transfers of the stock of MODE to a corporation controlled (as defined above) by Emcore), (iv) cause or permit MODE to sell or otherwise dispose of any of its assets or of any of the assets acquired from Acquisition Subsidiary (except for dispositions made in the ordinary course of business or to a corporation controlled (as defined above) by MODE), (v) cause or permit MODE to issue additional shares of stock, or take any other action, that would result in Emcore losing control (as defined above in Section 2.34) of MODE after the Merger, or (vi) redeem or otherwise reacquire any of the Emcore Common Stock issued in the Merger.

(d) Acquisition Subsidiary will have no liabilities assumed by MODE, and will not transfer to MODE any assets subject to liabilities, in the Merger.

(e) Following the Merger, MODE will continue its historic business or use a significant portion of its historic business assets in a business.

(f) There is no intercorporate indebtedness existing between MODE and Emcore or between Acquisition Subsidiary and MODE that was issued, acquired, or will be settled at a discount.

(g) During the past five years, none of the shares of the capital stock of MODE, including the right to acquire or vote any such shares, has directly or indirectly been owned by Emcore.

(h) Neither Emcore nor Acquisition Subsidiary is an investment company as defined in section 368(a)(2)(F)(iii) and (iv) of the Code.

4.12 Environmental Compliance. Except for matters which, individually or in the aggregate, will not have an Emcore Material Adverse Effect, (a) the properties, operations and activities of Emcore are in compliance with all applicable Environmental Laws; (b) Emcore and the properties and operations of Emcore are not subject to any existing, pending or, to the knowledge of Emcore, threatened action, suit, investigation, inquiry or proceeding by or before any court or governmental authority under any Environmental Law; (c) all permits, licenses and similar authorizations, if any, required to be obtained or filed by Emcore under any Environmental Law in connection with the business of Emcore have been obtained or filed and are valid and currently in full force and effect or have been applied for; (d) there has been no release of any hazardous substance, pollutant or contaminant into the environment by Emcore or in connection with its properties or operations; (e) there has been no exposure

of any Person or property to any hazardous substance, pollutant or contaminant in connection with the properties, operations and activities of Emcore; and (f) Emcore has made available to MODE all internal and external environmental audits and studies and all correspondence on substantial environmental matters (in each case relevant to Emcore) in the possession of Emcore.

4.13 Disclosure. No representation or warranty by Emcore contained in this Agreement, and no statement contained in the any document, certificate or other instrument delivered to or to be delivered by or on behalf of Emcore pursuant to this Agreement, contains or will contain any untrue statement of a material fact or omit or will omit to state any material fact necessary, in light of the circumstances under which it was or will be made, in order to make the statements herein or therein not misleading.

ARTICLE V

COVENANTS

From and after the Agreement Date and until the Closing Date:

5.1 Conduct of Business. MODE and Emcore shall carry on their respective businesses diligently and substantially in the same manner as before the Agreement Date. MODE shall not make or institute any unusual or new methods of manufacture, purchase, sale, shipment or delivery, lease, management, accounting or operation, except as agreed to in writing by Emcore. All of the property of MODE shall be used, operated, repaired and maintained in a normal business manner consistent with past practice.

5.2 Absence of Material Changes. Without the prior written consent of Emcore, MODE shall not:

(a) take any action to amend its charter documents or bylaws;

(b) issue any stock, bonds or other corporate securities or grant any option or issue any warrant to purchase or subscribe for any of such securities or issue any securities convertible into such securities;

(c) incur any obligation or liability (absolute or contingent), except current liabilities incurred and obligations under contracts entered into in the Ordinary Course of Business of MODE;

(d) declare or make any payment or distribution to its stockholders with respect to its stock or purchase or redeem any shares of its capital stock;

(e) mortgage, pledge, or subject to any lien, charge or any other encumbrance any of its assets or properties;

(f) sell, assign, or transfer any of its assets, except in the Ordinary Course of Business of MODE;

(g) cancel any debts or claims, except in the Ordinary Course of Business of MODE;

(h) merge or consolidate with or into any Business Entity other than the Acquisition Subsidiary;

(i) make, accrue or become liable for any bonus, profit sharing or incentive payment, except for accruals under existing plans, if any, or increase the rate of compensation payable or to become payable by it to any of its officers, directors or employees;

(j) make any election or give any consent under the Code or the tax statutes of any state or other jurisdiction or make any termination, revocation or cancellation of any such election or any consent or compromise or settle any claim for past or present tax due;

(k) modify, amend, alter or terminate any of its executory contracts of a material value or which are material in amount;

(l) take or permit any act or omission constituting a breach or default under any contract, indenture or agreement by which it or its properties are bound;

(m) fail to use commercially reasonable efforts to (i) preserve the possession and control of its assets and business, (ii) keep in faithful service its present officers and key employees, and (iii) preserve the goodwill of its consumers, suppliers, agents, brokers and others having business relations with it;

(n) fail to operate its business and maintain its books, accounts and records in the customary manner and in the Ordinary Course of Business of MODE and maintain in good repair its business premises, fixtures, machinery, furniture and equipment;

(o) enter into any lease, contract, agreement or understanding, other than in the Ordinary Course of Business of MODE;

(p) incur any capital expenditure in excess of \$5,000 in an instance or \$25,000 in the aggregate;

(q) engage any new employee for a salary in excess of \$45,000 per annum;

(r) materially alter the terms, status or funding condition of any Employee Benefit Plan;

(s) commit or agree to do any of the foregoing in the future.

5.3 Delivery of Interim Financial Statements. As promptly as possible following the last day of each month after the Agreement Date until the Closing Date, and in any event within thirty (30) days after the end of each such month, MODE shall deliver to Emcore the balance sheet of MODE and the related statements of income, shareholders' equity, retained earnings and cash flows for the one-month period then ended, all certified by the chief financial officer of MODE to the effect that such interim financial statements are prepared in accordance with GAAP on a basis consistent with the Financial Statements and fairly present the financial condition of MODE as of the date thereof and for the period covered thereby (collectively, the "Interim Financial Statements").

5.4 Communications with Customers and Suppliers.

(a) Unless instructed otherwise by Emcore in writing, MODE will continue to accept customer orders in the Ordinary Course of Business of MODE for all products and services offered by MODE, whether expected to be shipped before or after the Closing Date.

(b) The Parties will cooperate in communications with MODE's suppliers and customers in connection with the transfer of MODE Shares to Emcore on the Closing Date.

5.5 Compliance with Laws. Each of MODE and Emcore will comply with all laws and regulations that are applicable to it or to the conduct of their respective businesses and will perform and comply with all contracts, commitments and obligations by which it is bound.

5.6 Continued Truth of Representations and Warranties of MODE and Principal MODE Stockholders. Neither MODE nor the Principal MODE Stockholders will take any actions that would result in any of the representations or warranties set forth in Articles II and III above being untrue.

5.7 Continued Truth of Representations and Warranties of Emcore. Emcore will not take any actions that would result in any of representations and warranties set forth in Article IV above being untrue.

5.8 Continuing Obligation to Inform. From time to time prior to the Closing, each Party will deliver or cause to be delivered to the other Party supplemental information concerning events subsequent to the Agreement Date that would render any statement, representation or warranty in this Agreement or any information contained in any Schedule attached hereto pertaining to such Party inaccurate or incomplete at any time after the

Agreement Date until the Closing Date; provided, that such supplemental information shall not constitute an amendment of any statement, representation or warranty in this Agreement or any Schedule, Exhibit or document furnished pursuant hereto.

5.9 Exclusive Dealing. Until the earlier of the Closing or the termination of this Agreement pursuant to Section 8.1 hereof, neither MODE nor the Principal MODE Stockholders will, directly or indirectly, through any officer, director, employee, Affiliate or agent or otherwise, (a) take any action to solicit, initiate, seek, entertain, or encourage or support any inquiry, proposal or offer from any person or Business Entity relating to an acquisition or purchase of all or any portion of the assets of (other than in the Ordinary Course of Business) or an equity interest in MODE or any merger, consolidation or business combination with MODE, or (b) participate in any discussions or negotiations regarding, or furnish to any other person or Business Entity, any information with respect to or otherwise cooperate in any way with, or assist or participate in, facilitate or encourage, any effort or attempt by any other person to do or seek any of the foregoing. MODE and the Principal MODE Stockholders shall promptly notify Emcore of any such proposal or offer, or any inquiry or contact with respect thereto received by MODE or, to their knowledge, any MODE Stockholder.

5.10 Reports, Taxes. MODE will duly and timely file all reports or returns required to be filed with federal, state, local and foreign authorities and will promptly pay all federal, state, local and foreign Taxes, assessments and governmental charges levied or assessed upon them or any of their properties (unless contesting such in good faith and adequate provision has been made therefor).

5.11 Best Efforts to Obtain Satisfaction of Conditions. The Parties shall use their best efforts, to the extent commercially reasonable, to obtain the satisfaction of the conditions specified in this Agreement.

5.12 Full Access. MODE and Emcore shall each permit representatives of the other Party to have full access (at all reasonable times, and in a manner so as not to interfere with its normal business operations) to all premises, properties, financial and accounting records, contracts, other records and documents, and personnel, of or pertaining to such Party. The officers and management of such Party shall cooperate fully with the representatives and agents of the other Party and shall make themselves available to the other Party.

5.13 Customers and Suppliers. MODE shall, at the request of Emcore, introduce Emcore to MODE's principal suppliers, customers and employees to facilitate discussions between such persons and Emcore in regard to the conduct of the business of MODE following the Closing.

5.14 Reorganization under Section 368(a). Emcore shall take no action, and shall use all reasonable efforts to prevent any of its Affiliates from taking any action, inconsistent with the treatment of the transaction as a reorganization intended to qualify under Section 368(a) of

the Code.

5.15 Retained Employees and Noncompetition and/or Nondisclosure Agreements. MODE and the Principal MODE Stockholders shall use their best efforts to obtain on or prior to the Closing from each of MODE employees identified on Schedule IV attached hereto, an executed form of Emcore's standard noncompetition and/or nondisclosure agreement, as applicable, in the form attached hereto as Exhibit D, together with any and all other documents reasonably requested by Emcore in connection with the retention of such employees by Emcore. Effective as of the Closing Date, Emcore shall continue the employment of each such person identified on Schedule III (the "MODE Employees").

5.16 Listing of Merger Shares. Emcore shall use its best efforts to list the Merger Shares on the Nasdaq National Market before the Closing Date.

5.17 Indemnification. Emcore shall indemnify and hold harmless the present and former officers and directors of MODE in respect of acts or omissions occurring prior to the Effective Time to the extent provided under the Amended and Restated Certificate of Incorporation and Bylaws of MODE in effect on the date hereof.

5.18 Employees and Employee Benefits.

(a) Effective as of the Closing Date, Emcore shall cause the Surviving Corporation to continue the employment of each individual who was employed by MODE on the day prior to the Closing Date, except for the employees listed on Section 5.18(a) of the Disclosure Schedule, at the same or greater cash compensation as each such employee was receiving immediately prior to the Closing Date. Each of the MODE employees who continues employment with the Surviving Corporation as of the Closing Date shall be referred to herein as a "MODE Employee."

(b) Effective as of the Closing Date, MODE shall terminate or discontinue the "simplified employee pension" (within the meaning of Section 408(k) of the Code) maintained by MODE. Effective with the Closing Date, Emcore shall, in its sole discretion, either (i) cause the Surviving Corporation to maintain, in substantially the same form, MODE's existing employee welfare benefit plans (as defined in Section 3(1) of ERISA) or (ii) replace any or all of such plans with comparable programs. Except for benefits described in the previous sentence, MODE Employees shall, to the extent otherwise eligible, be allowed to participate in all employee benefit plans, programs or arrangements maintained by Emcore on the same terms as existing Emcore employees. Emcore shall cause each such MODE Employee, for the year during which the Closing Date occurs, to be credited under any applicable Emcore group health plan with any deductibles and copayments already incurred during such year under the MODE group health plan, and cause to be waived under each applicable Emcore group health plan any preexisting condition restrictions to the extent necessary to provide immediate coverage of all MODE Employees. Emcore shall recognize or cause to be recognized each MODE Employee's years of service and level of seniority with

MODE, its ERISA Affiliates, and the Subsidiaries for purposes of (i) terms of employment and (ii) eligibility, vesting and benefit determination under all employee benefit plans, programs or arrangements maintained by Emcore or Surviving Corporation, to the extent permissible under applicable law, including, but not limited to, ERISA.

(c) Emcore agrees that it will comply with the continuation coverage requirements of Section 4980B of the Code and Part 6 of Title I of ERISA after the Closing Date with respect to all qualified beneficiaries who had a qualifying event as of or prior to the Closing Date.

(d) Each MODE Employee shall be credited under the applicable Emcore Plan with all vacation, sick, and other paid time off accrued by such MODE Employee as of the day prior to the Closing Date.

ARTICLE VI

CONDITIONS TO CLOSING

6.1 Conditions to Obligations of Emcore and Acquisition Subsidiary. The obligation of each of Emcore and the Acquisition Subsidiary to consummate the transactions to be performed by Emcore and the Acquisition Subsidiary in connection with the Closing and the Merger is subject to the satisfaction, or waiver by Emcore and the Acquisition Subsidiary, of the following conditions:

(a) MODE shall have obtained all of the waivers, permits, consents, approvals or other authorizations, and effected all of the registrations, filings and notices, necessary for the consummation by MODE and the Principal MODE Stockholders of the transactions contemplated hereby;

(b) the representations and warranties of MODE and the Principal MODE Stockholders set forth in Articles II and III above shall have been true and correct in all material respects when made on the Agreement Date and shall be true and correct in all material respects as of the Closing Date as if made as of the Closing Date, except for representations and warranties made as of a specific date, which shall be true and correct in all material respects as of such date; it being understood and agreed by Emcore that this condition shall be deemed satisfied unless any failure to be true and correct (without giving effect to any materiality or material adverse effect qualifications or materiality exceptions contained therein), has, or could reasonably be expected to have, individually or in the aggregate, a MODE Material Adverse Effect.

(c) MODE shall have performed or complied in all material respects with their agreements and covenants required to be performed or complied with under this Agreement as of or prior to the Closing;

(d) no action, suit or proceeding shall be pending or threatened by or before any Governmental Entity wherein an unfavorable judgment, order, decree, stipulation or injunction would (i) prevent consummation of any of the transactions contemplated by this Agreement, (ii) cause any of the transactions contemplated by this Agreement to be rescinded following consummation, or (iii) affect adversely the right of MODE to own, operate or control any of its assets or operations, and no such judgment, order, decree, stipulation or injunction shall be in effect;

(e) MODE shall have delivered to Emcore a certificate (without qualification as to knowledge or materiality or otherwise) to the effect that each of the conditions specified in clauses (a) through (d) of this Section 6.1 is satisfied in all respects;

(f) on the Agreement Date, each of Robert Bryan and Thomas Brennan shall have executed and delivered to Emcore an employment agreement in the form attached hereto as Exhibit E (each, an "Employment Agreement") and such employment agreement shall be in full force and effect on the Closing Date in accordance with its terms;

(g) Emcore and Acquisition Subsidiary shall have received from Vinson & Elkins, L.L.P., counsel to MODE and the MODE Stockholders, an opinion in the form attached hereto as Exhibit F addressed to it and dated as of the Closing Date;

(h) Emcore, the Principal MODE Stockholders and the Escrow Agent shall have executed and delivered the Escrow Agreement;

(i) MODE shall have delivered to Emcore a certificate of the Secretary of State of the State of Delaware as of the Closing Date as to the legal existence and good standing of MODE in Delaware as of the Closing Date;

(j) MODE shall have delivered to Emcore a certificate as of a date within five business days of the Closing Date as to the tax good standing of MODE in Delaware;

(k) MODE shall have delivered to Emcore certificates of the Secretary of MODE attesting to the incumbency of MODE's officers, the authenticity of the resolutions authorizing the transactions contemplated by this Agreement, and the authenticity and continuing validity of the charter documents of MODE;

(l) MODE shall have delivered to Emcore certificates of appropriate governmental officials in each state or country in which MODE is required to qualify to do business as a foreign corporation as to the qualification and corporate and tax good standing of MODE in each such jurisdiction;

(m) each MODE Stockholder (other than the Principal MODE Stockholders) shall have executed and delivered to Emcore an investment representation letter, in substantially the form of Exhibit G hereto;

(n) MODE shall have delivered to Emcore resignations of each director and officer of MODE to be effective immediately upon the Effective Time;

(o) MODE shall have delivered to Emcore a Termination Acknowledgement executed by William Patton, in substantially the form of Exhibit H hereto; and

(p) all actions to be taken by MODE and the MODE Stockholders in connection with the consummation of the transactions contemplated hereby and all certificates, opinions, instruments and other documents required to effect the transactions contemplated hereby shall be reasonably satisfactory in form and substance to Emcore and its counsel, Brobeck, Phleger & Harrison LLP.

6.2 Conditions to Obligations of MODE and Principal MODE Stockholders. The obligations of MODE and the Principal MODE Stockholders to consummate the transactions to be performed by them in connection with the Closing and the Merger are subject to the satisfaction, or waiver by MODE and the Principal MODE Stockholders, of the following conditions:

(a) the representations and warranties of Emcore and the Acquisition Subsidiary as set forth in Article IV above shall have been true and correct in all material respects when made on the Agreement Date and shall be true and correct in all material respects as of the Closing Date as if made as of the Closing Date, except for representations and warranties made as of a specific date, which shall be true and correct in all material respects as of such date, it being understood and agreed by MODE and the Principal MODE Stockholders that this condition shall be deemed satisfied unless any failure to be true and correct (without giving effect to any materiality or material adverse effect qualifications or materiality exceptions contained therein), has or could reasonably be expected to have an Emcore Material Adverse Effect;

(b) Emcore shall have obtained all of the waivers, permits, consents, approvals or other authorizations, and effected all of the registrations, filings and notices, necessary for the consummation by Emcore of the transactions contemplated hereby;

(c) each of Emcore and the Acquisition Subsidiary shall have performed or complied in all material respects with their agreements and covenants required to be performed or complied with under this Agreement as of or prior to the Closing;

(d) no action, suit or proceeding shall be pending or threatened by or before any Governmental Entity wherein an unfavorable judgment, order, decree, stipulation or injunction would (i) prevent consummation of any of the transactions contemplated by this Agreement, or (ii) cause any of the transactions contemplated by this Agreement to be rescinded following consummation;

(e) Emcore shall have delivered to MODE a certificate
(without

qualification as to knowledge or materiality or otherwise) to the effect that each of the conditions specified in clauses (a) through (d) of this Section 6.2 is satisfied in all respects;

(f) MODE and the MODE Stockholders shall have received from Brobeck, Phleger & Harrison LLP, counsel to Emcore, an opinion in the form attached hereto as Exhibit I, addressed to MODE and the MODE Stockholders and dated as of the Closing Date;

(g) on the Agreement Date, Emcore shall have executed and delivered to each of Robert Bryan and Thomas Brennan an employment agreement in the form attached hereto as Exhibit C and such employment agreement shall be in full force and effect on the Closing Date in accordance with its terms;

(h) on the Agreement Date, Emcore shall have executed and delivered to the MODE Stockholders a Registration Rights Agreement (the "Registration Rights Agreement") in the form attached hereto as Exhibit J and such Registration Rights Agreement shall be in full force and effect on the Closing Date in accordance with its terms;

(i) Emcore shall have delivered to MODE certificate of the Secretary of State of the State of New Jersey of the Closing Date as to the legal existence and good standing of Emcore in New Jersey as of the Closing Date;

(j) Emcore shall have delivered to MODE a certificate of the Secretary of Emcore attesting to the incumbency of the Emcore's officers, the authenticity of the resolutions authorizing the transactions contemplated by this Agreement, and the authenticity and continuing validity of the charter documents of Emcore; and

(k) all actions to be taken by Emcore in connection with the consummation of the transactions contemplated hereby and all certificates, opinions, instruments and other documents required to effect the transactions contemplated hereby shall be reasonably satisfactory in form and substance to MODE.

ARTICLE VII

INDEMNIFICATION

7.1 Indemnification.

(a) Indemnification by the Principal MODE Stockholders.

Subject to Section 7.3 hereof, each of the Principal MODE Stockholders shall, jointly and severally (except with respect to the representations of the Principal MODE Stockholders contained in Article III as to which the indemnification obligations herein shall be several and not joint), indemnify Emcore and the Surviving Corporation, and their respective directors, officers, employees or agents, or any of their respective successors and assigns, in respect of, and hold each of them harmless against, any and all demands, claims, debts, actions, assessments, judgements, settlements, sanctions, obligations and other liabilities (whether absolute, accrued, contingent, fixed or otherwise, known or unknown, due or to become due or otherwise), monetary damages, fines, fees, penalties, interest obligations, deficiencies, losses and expenses (including, without limitation, amounts paid in settlement, interest, court costs, costs of investigators, fees and expenses of attorneys, accountants, financial advisors and other experts, and other expenses of litigation) ("Damages") incurred or suffered by them resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of MODE or such Principal MODE Stockholder contained in this Agreement (other than covenants or agreements of MODE to be performed after the Effective Time) or in the certificate delivered pursuant to Section 6.1(e).

(b) Indemnification by Emcore. Subject to Section 7.3

hereof, Emcore shall indemnify the MODE Stockholders and their respective directors, officers, employees or agents in respect of, and hold each of them harmless against, any and all Damages incurred or suffered by them resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of Emcore or the Acquisition Subsidiary, as applicable, contained in this Agreement or in the certificate delivered pursuant to Section 6.2(e).

7.2 Method of Asserting Claims.

(a) All claims for indemnification by an Indemnified Person

pursuant to this Article VII shall be made in accordance with the provisions of this Section 7.2 and the Escrow Agreement.

(b) A party entitled to indemnification under this Article

VII (the "Indemnified Person") shall give prompt written notification to the Party obligated to provide such indemnification (the "Indemnifying Person") of the commencement of any action, suit or proceeding relating to a third party claim for which indemnification pursuant to this Article VII may be sought; provided, however, that no delay on the part of the Indemnified Person in notifying the Indemnifying Person shall relieve the Indemnifying Person from any liability or

obligation under this Article VII except to the extent of any damage or liability caused solely by or arising out of such delay. Within 20 days after delivery of such notification, the Indemnifying Person may, upon written notice thereof to the Indemnified Person, assume control of the defense of such action, suit or proceeding with counsel reasonably satisfactory to the Indemnified Person, provided (i) the Indemnifying Person acknowledges in writing to the Indemnified Person that the Indemnifying Person shall indemnify the Indemnified Person with respect to all elements of such action, suit or proceeding and any damages, fines, costs or other liabilities that may be assessed against the Indemnified Person in connection with such action, suit or proceeding, and (ii) the third party seeks monetary damages only. If the Indemnifying Person does not so assume control of such defense, the Indemnified Person shall control such defense. The party not controlling such defense may participate therein at its own expense; provided, that if the Indemnifying Person assumes control of such defense and the Indemnified Person is advised by counsel in writing that the Indemnifying Person and the Indemnified Person may have conflicting interests or different defenses available with respect to such action, suit or proceeding, the reasonable fees and expenses of counsel to the Indemnified Person shall be considered "Damages" for purposes of this Agreement. The party controlling such defense shall keep the other party advised of the status of such action, suit or proceeding and the defense thereof and shall consider in good faith recommendations made by the other party with respect thereto. Except as provided in Section 7.2(c) below, an Indemnified Person shall not agree to any settlement of such action, suit or proceeding without the prior written consent of the Indemnifying Person, which shall not be unreasonably withheld or delayed. The Indemnifying Person shall not agree to any settlement or the entry of a judgment in any action, suit or proceeding without the prior written consent of the Indemnified Person, which shall not be unreasonably withheld (it being understood that it is reasonable to withhold such consent if, among other things, the settlement or the entry of a judgment (A) lacks a complete release of the Indemnified Person for all liability with respect thereto or (B) imposes any liability or obligation on the Indemnified Person).

7.3 Survival and Limitations.

(a) Unless otherwise specified in this Section 7.3, all provisions of this Agreement shall survive the Closing and the consummation of the transactions contemplated hereby and shall continue forever in full force and effect in accordance with their terms.

(b) The representations and warranties and covenants and agreements of MODE and the Principal MODE Stockholders set forth in Articles II, III and V above (other than the representations and warranties of MODE set forth in Section 2.11 and the indemnification obligations set forth in this Article VII relating thereto) (i) shall survive the Closing and the consummation of the transactions contemplated hereby and continue for a period of six (6) months after the Closing Date and (ii) shall not be affected by any examination made for or on behalf of Emcore or the knowledge of any of Emcore's officers, directors, stockholders, employees or agents.

(c) The representations and warranties of MODE set forth in Section 2.11

of Article II above and the indemnification obligations set forth in this Article VII relating thereto (i) shall survive the Closing and the consummation of the transactions contemplated hereby and continue until the longer of (A) six (6) months after the Closing Date or (B) the earlier of (x) such time as the Surviving Corporation or Emcore shall have entered into a license agreement, in form and substance similar to the license agreement described in Section 2.11 (a) of the Disclosure Schedule, and such license agreement shall be in full force and effect, or (y) twelve (12) months after the Closing Date, and (ii) shall not be affected by any disclosure contained in the Disclosure Schedule or otherwise made by MODE or any other person relating to the license agreement or any examination made for or on behalf of Emcore or the knowledge of any of Emcore's officers, directors, stockholders, employees or agents.

(d) The date on which any particular representation, warranty or indemnification obligation of the Principal MODE Stockholders terminates shall be referred to herein and in the Escrow Agreement as the "Termination Date." If a notice of a claim is given in accordance with the notice provisions of this Agreement or the Escrow Agreement before the Termination Date, then (notwithstanding the occurrence of the Termination Date) the representation, warranty or indemnification obligation applicable to such claim shall survive until, but only for purposes of, the resolution of such claim. Neither Emcore nor the Principal MODE Stockholders shall have any obligation to indemnify or hold each other harmless with respect to any Damages resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of Emcore, MODE or a MODE Principal Stockholder, as applicable, unless written notice of such claim is made pursuant to Section 7.2 hereof prior to the Termination Date.

(e) The representations and warranties of Emcore set forth in Article IV above (i) shall survive the Closing and the consummation of the transactions contemplated hereby and shall continue for a period of six (6) months after the Closing Date and (ii) shall not be affected by any examination made for or on behalf of MODE, the MODE Stockholders, or their respective officers, directors, stockholders, employees or agents, or the knowledge of any of MODE, the MODE Stockholders, or their respective officers, directors, stockholders, employees or agents.

(f) Notwithstanding anything in this Agreement to the contrary, the Principal MODE Stockholders shall not be liable under this Article VII unless and until the aggregate Damages (without giving effect to any materiality or material adverse effect qualifications or materiality exceptions contained in any provision of this Agreement) to the Indemnified Persons incurred or suffered by them resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of MODE or the Principal MODE Stockholder contained in this Agreement or in the certificate delivered pursuant to Section 6.1(e) exceed \$100,000 (at which point the Principal MODE Stockholders shall become liable for the aggregate Damages, and not just amounts in excess of \$100,000). Except with respect to claims based on willful or intentional fraud, the obligations (in a claim for indemnification or otherwise) of the Principal MODE Stockholders to Emcore, the Surviving Corporation and the other Indemnified Persons for all Damages

resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of MODE or the Principal MODE Stockholders shall be limited solely to the Escrow Shares.

(g) Notwithstanding anything in this Agreement to the contrary, Emcore shall not be liable under this Article VII unless and until the aggregate Damages (without giving effect to any materiality or material adverse effect qualifications or materiality exceptions contained in any provision of this Agreement) to the Indemnified Persons exceed \$100,000 (at which point Emcore shall become liable for the aggregate Damages, and not just amounts in excess of \$100,000). Except with respect to claims based on willful or intentional fraud, the obligations (in a claim for indemnification or otherwise) of Emcore to the MODE Stockholders and the other Indemnified Persons for all Damages resulting from, relating to or constituting any misrepresentation, breach of warranty or failure to perform any covenant or agreement of Emcore or the Acquisition Subsidiary shall be limited to \$1,500,000, in the aggregate.

(h) The indemnification provisions of this Article VII shall be the sole and exclusive remedy of the Parties for breaches of the representations, warranties, covenants and agreements contained in this Agreement or relating to the transactions contemplated hereby, and each Party hereby waives any other statutory, equitable or common law remedy any Party would otherwise have for breach of this Agreement.

ARTICLE VIII

TERMINATION

8.1 Termination of Agreement. The Parties may terminate this Agreement prior to the Closing Date only as provided below:

(a) the Parties may terminate this Agreement by mutual written consent;

(b) Emcore may terminate this Agreement by giving written notice to MODE and the MODE Stockholders in the event that MODE or the MODE Stockholders are in breach, and MODE may terminate this Agreement by giving written notice to Emcore in the event Emcore is in breach, of any material representation, warranty, or covenant contained in this Agreement, and such breach is not remedied within 10 days of receipt of written notice thereof;

(c) Emcore may terminate this Agreement by giving written notice to MODE if the Effective Time shall not have occurred on or before December 10, 1997 by reason of the failure of any condition precedent under Section 6.1 above (unless the failure results primarily from a breach by Emcore of any representation, warranty or covenant contained in this Agreement); and

(d) MODE may terminate this Agreement by giving written notice to Emcore if the Effective Time shall not have occurred on or before December 10, 1997 by reason of the failure of any condition precedent under Section 6.2 above (unless the failure results primarily from a breach by MODE or MODE Stockholders of any representation, warranty or covenant contained in this Agreement).

8.2 Effect of Termination. If any Party terminates this Agreement pursuant to Section 8.1 above, all obligations of the Parties hereunder shall terminate without any liability of any Party to any other Party (except for any liability of any Party for breaches of this Agreement).

ARTICLE IX

DEFINITIONS

For purposes of this Agreement, each of the following defined terms is defined in the Section of this Agreement indicated below.

Defined Term - - - - -	Section - - - - -
Accounts Receivable	2.14
Acquisition Subsidiary	Introduction
Affiliate	2.13(a)(vi)
Agreement	Introduction
Agreement Date	Introduction
Balance Sheet Date	2.5
Business Entity	2.8(c)
CERCLA	2.30
Certificates	1.3(d)
Certificate of Merger	1.1
Closing	1.2
Closing Date	1.2
Code	2.8(c)
Conversion Ratio	1.5(a)
Damages	7.1(a)
Delaware Law	1.1
Disclosure Schedule	Article II
Effective Time	1.1
Emcore	Introduction
Emcore Common Stock	Preliminary Statement
Emcore Material Adverse Effect	4.1
Emcore Option Plan	4.2

Defined Term - - - - -	Section - - - - -
Emcore Options	4.2
Emcore Warrants	4.2
Employees	2.19(a)
Employee Benefit Plan	2.20(a)
Employment Agreement	6.1(f)
Environmental Law or Laws	2.30
ERISA	2.20(a)
ERISA Affiliate	2.20(a)
Escrow Agreement	1.3(e)
Escrow Shares	1.5(c)
Exchange Act	4.6
Financial Statements	2.5
Fundamental Agreements	2.1(b) and 3.1(c)
GAAP	2.5
Governmental Entity	2.3
Indemnified Persons	7.2(b)
Indemnifying Persons	7.2(b)
Initial Shares	1.5(c)
Intellectual Property	2.11(a)
Interim Financial Statements	5.3
Merger	1.1
Merger Shares	1.5(c)
MODE	Introduction
MODE Common Stock	2.2
MODE Employee	5.18(a)
MODE Employees	5.15
MODE Series A Stock	2.2
MODE Series B Stock	2.2
MODE Material Adverse Effect	2.6
MODE Preferred Stock	2.2
MODE Shares	1.3(d)
MODE Stock Option Plan	1.13(a)
MODE Stockholders	Preliminary Statement
Most Recent Balance Sheet	2.5
Options	2.2
Ordinary Course of Business	2.7
Parties	Introduction
Permits	2.22
Personal Property	2.9(c)
Principal MODE Stockholders	Introduction
RCRA	2.30
Registration Rights Agreement	6.2(h)

Defined Term - - - - -	Section - - - - -
SEC	4.6
SEC Documents	4.6
Securities Act	2.2
Security Interest	2.3
Surviving Corporation	1.1
Tax Returns	2.8(a)
Taxes	2.8(a)
Termination Date	7.3(d)
Underlying MODE Common Stock	1.5(a)
Vested Options	2.2
Warrants	2.2

ARTICLE X

GENERAL PROVISIONS

10.1 Press Releases and Announcements. No Party shall issue any press release or announcement relating to the subject matter of this Agreement without the prior written approval of the other Parties; provided, however, that any Party may, upon advice of counsel, make any public disclosure that it believes in good faith is required by law or regulation (in which case the disclosing Party shall advise the other Parties and provide them with a copy of the proposed disclosure prior to making the disclosure).

10.2 No Third-Party Beneficiaries. This Agreement shall not confer any rights or remedies upon any person other than the Parties and their respective successors and permitted assigns except for current or former directors and officers of MODE who shall be third party beneficiaries of the covenant set forth in Section 5.17.

10.3 Entire Agreement. The Fundamental Agreements and the exhibits and schedules attached thereto, together with that certain Mutual Nondisclosure Agreement, dated September 19, 1997, by and between Emcore and MODE, constitute the entire agreement among the Parties and supersede any prior understandings, agreements, or representations by or among the Parties, written or oral, that may have related in any way to the subject matter of the Fundamental Agreements.

10.4 Succession and Assignment. This Agreement shall be binding upon and inure to the benefit of the Parties named herein and their respective successors and permitted assigns. No Party may assign either this Agreement or any of its rights, interests, or obligations hereunder without the prior written approval of the other Parties, provided that the Surviving Corporation may assign its rights, interests and/or obligations under this Agreement to Emcore.

10.5 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

10.6 Headings. The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

10.7 Notices. All notices, requests, demands, claims and other communications hereunder shall be in writing. Any notice, request, demand, claim, or other communication hereunder shall be deemed duly delivered three business days after it is sent by registered or certified mail, return receipt requested, postage prepaid, or one business day after it is sent via a reputable nationwide overnight courier service, in each case to the intended recipient as set

forth below:

If MODE:

Copy to:

MicroOptical Devices, Inc.
5601-C Midway Park
Albuquerque, NM 87109
Attention: President

Vinson & Elkins L.L.P.
1001 Fannin Street
Suite 2300
Houston, TX 77002-6760
Attention: Keith R. Fullenweider

If to the Principal MODE Stockholders:

Copy to:

Robert Bryan
4701 Winnetka Ct, NE
Albuquerque, NM 87111

Thomas Brennan
1340 Douglas MacArthur Road, NW
Albuquerque, NM 87107

Vinson & Elkins L.L.P.
1001 Fannin Street
Suite 2300
Houston, TX 77002-6760
Attention: Keith R. Fullenweider

If to Emcore or the Acquisition
Subsidiary:

Copy to:

Emcore Corporation
394 Elizabeth Avenue
Somerset, NJ 08873
Attention: Reuben F. Richards, Jr.

Brobeck, Phleger & Harrison LLP
1633 Broadway
47th Floor
New York, NY 10019
Attention: Ellen B. Corenswet
Babak Yaghmaie

Any Party may give any notice, request, demand, claim or other communication hereunder by personal delivery or telecopy, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the Party for whom it is intended. Any Party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other Parties notice in the manner herein set forth.

10.8 Governing Law. This Agreement and the legal relations between the parties hereto will be governed by and construed in accordance with the laws of the State of New York, without giving effect to the choice of law principles thereof; provided, however, that the law governing the fiduciary duties of each party hereto and their respective boards of

directors and the law governing any other matters of internal corporate governance of any of the parties hereto shall be the law of their respective jurisdictions of incorporation.

10.9 Amendments and Waivers. The Parties may mutually amend any provision of this Agreement at any time prior to the Effective Time by a written instrument signed by all of the Parties. No waiver by any Party of any default, misrepresentation, or breach of warranty or covenant hereunder, whether intentional or not, shall be deemed to extend to any prior or subsequent default, misrepresentation, or breach of warranty or covenant hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

10.10 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If the final judgment of a court of competent jurisdiction declares that any term or provision hereof is invalid or unenforceable, the Parties agree that the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment may be appealed.

10.11 Expenses. Each of Emcore and MODE shall bear their own costs and expenses (including fees and expenses of their respective legal, accounting and financial advisors) incurred in connection with this Agreement and the transactions contemplated hereby.

10.12 Specific Performance. Each of the Parties acknowledges and agrees that one or more of the other Parties would be damaged irreparably in the event any of the provisions of this Agreement are not performed in accordance with their specific terms or otherwise are breached. Accordingly, each of the Parties agrees that the other Parties shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Agreement and to enforce specifically this Agreement and the terms and provisions hereof in any action instituted in any court of the United States or any state thereof having jurisdiction over the Parties and the matter, in addition to any other remedy to which it may be entitled, at law or in equity.

10.13 Construction. The language used in this Agreement shall be deemed to be the language chosen by the Parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any Party. Any reference to any federal, state, local, or foreign statute or law shall be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise.

10.14 Incorporation of Exhibits and Schedules. The Exhibits and Schedules identified

in this Agreement are incorporated herein by reference and made a part hereof.

[SIGNATURES ARE ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have executed this Agreement and Plan of Merger as of the date first above written.

EMCORE CORPORATION

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

Reuben F. Richards, Jr., President

EMKR ACQUISITION
CORPORATION

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

Reuben F. Richards, Jr., President

MICROOPTICAL DEVICES, INC.

By: /s/ William B. Patton, Jr.

Name: William B. Patton, Jr.
Title: Chairman

/s/ Robert Bryan

Name: Robert Bryan
Title: Co-President

/s/ Thomas Brennan

Name: Thomas Brennan
Title: Co-President

PRINCIPAL MODE STOCKHOLDERS:

/s/ Robert Bryan

Robert Bryan

/s/ Thomas Brennan

Thomas Brennan

SCHEDULE I

LIST OF PRINCIPAL MODE STOCKHOLDERS

Robert Bryan, Ph.D.
Thomas Brennan

SCHEDULE II

Merger Shares¹

Name	Number of Initial Shares	Number of Escrow Shares	Number of Merger Shares
Richard L. Hardison	2,658	0	2,658
Robert Bryan	214,688	11,299	225,987
Thomas M. Brennan	214,688	11,299	225,987
William B. Patton, Jr.	86,850	0	86,850
ARCH Venture Fund II, L.P.	329,701	0	329,701
AM Fund I, L.P.	104,034	0	104,034
Murphree New Mexico Investors I, L.C.	173,391	0	173,391
AMP, Inc.	184,951	0	184,951
Shelby Private Placement Group (MODE), LLC	46,238	0	46,238
Falcon Technology Partners II, L.P.	23,118	0	23,118
Harvey B. Cash	5,779	0	5,779
BDM International, Inc.	26,586	0	26,586
Clinton W. Bybee	26,586	0	26,586
Totals	1,439,268	22,598	1,461,866

¹ Does not include issued and outstanding warrants or options.

SCHEDULE III

Tom Brennan
Rob Bryan
Marcia Salazar
Monty Seitz
Bill Leasure
Tim Cockerill
Diane Barney
Mike Favaro
Ying Gao
Pat Glarborg
John Joseph
Rich Carson
Tom Probst
Gary Oppedahl
Eddie Zamora
Scott Brooks
Kevin Lear
Randy Hickman

SCHEDULE IV

NAME - - - - -	NONCOMPETITION, CONFIDENTIAL INFORMATION AND INVENTIONS AGREEMENT -----	CONFIDENTIAL INFORMATION AND INVENTIONS AGREEMENT -----
Tom Brennan	X	
Rob Bryan	X	
Bill Leasure	X	
Tim Cockerill	X	
Mike Favaro	X	
Rich Carson	X	
Gary Oppedahl	X	
Kevin Lear	X	
Marcia Salazar		
Monty Seitz		X
Diane Barney		X
Ying Gao		X
Pat Glarborg		X
John Joseph		X
Tom Probst		X
Eddie Zamora		X
Scott Brooks		X
Randy Hickman		X

REGISTRATION RIGHTS AGREEMENT

December 5, 1997

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REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT is made as of the 5th day of December, 1997, by and among Emcore Corporation, a New Jersey corporation ("Emcore"), the persons or entities listed on Schedule A hereto, each of whom is herein referred to as a "Holder", and MicroOptical Devices, Inc., a Delaware corporation ("MODE").

RECITALS

WHEREAS, Emcore and MODE are parties to that certain Agreement and Plan of Merger of even date herewith (the "Merger Agreement") pursuant to which MODE will merge with and into Emcore;

WHEREAS, pursuant to the terms of the Merger Agreement and in order to induce the Holders to consummate the transactions contemplated thereby, Emcore has agreed to grant certain registration rights to the Holders as herein set forth.

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Registration Rights. Emcore covenants and agrees as follows:

1.1 Definitions. For purposes of this Section 1:

(a) The term "Act" means the Securities Act of 1933, as amended.

(b) The term "Form S-3" means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by Emcore with the SEC.

(c) The term "Holder" means (i) the persons or entities listed on Schedule A or (ii) any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 1.13 hereof.

(d) The term "1934 Act" shall mean the Securities Exchange Act of 1934, as amended.

(e) The term "register", "registered," and "registration" refer to a registration effected by preparing and filing a registration statement or similar document in compliance

with the Act, and the declaration or ordering of effectiveness of such registration statement or document by the SEC.

(f) The term "Registrable Securities" means (i) such number of shares of Common Stock of Emcore, issuable or issued to the Holders pursuant to the Merger Agreement, set forth opposite the name of each Holder on Schedule A hereto or (ii) any shares of Common Stock of Emcore issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the Emcore Common Stock referenced in (i) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which his rights under this Section 1 are not assigned.

(g) The number of shares of "Registrable Securities then outstanding" shall be determined by the number of shares of Common Stock outstanding which are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are, Registrable Securities.

(h) The term "SEC" shall mean the Securities and Exchange Commission.

All defined terms used, and not otherwise defined herein, shall have the meaning ascribed to such terms in the Merger Agreement.

1.2 Request for Registration.

(a) Subject to Section 1.14 below, in the event that Emcore (i) has not filed a registration statement for the sale of its Common Stock within ninety (90) days after the Closing Date and (ii) receives, at any time thereafter, a written request from the Holders of the Registrable Securities then outstanding that Emcore file a registration statement under the Act covering the registration of at least 35% of the Registrable Securities then outstanding, then Emcore shall (i) within ten (10) days of the receipt thereof, give written notice of such request to all Holders and (ii) effect as soon as practicable, and in any event within 90 days of the receipt of such request, the registration under the Act of all Registrable Securities which the Holders request to be registered, subject to the limitations of subsection 1.2(b), within twenty (20) days of the mailing of such notice by Emcore in accordance with Section 2.5.

(b) If the Holders initiating request hereunder (the "Initiating Holders") intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise Emcore as a part of their request made pursuant to subsection 1.2(a) and the Company shall include such information in the written notice referred to in subsection 1.2(a). The underwriter will be selected by Emcore and shall be reasonably acceptable to a majority in interest of the Holders. In such event, the right of any Holder to include his Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's

Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with Emcore as provided in subsection 1.4(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 1.2, if the underwriter advises the Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Holders thereof, including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities owned by each Holder.

(c) Notwithstanding the foregoing, if Emcore shall furnish to Holders requesting a registration statement pursuant to this Section 1.2, a certificate signed by the Chief Executive Officer of Emcore stating that in the good faith judgment of the Board of Directors of Emcore, it would be detrimental to Emcore and its shareholders for such registration statement to be filed and it is therefore essential to defer the filing of such registration statement, Emcore shall have the right to defer taking action with respect to such filing for a period of not more than 120 days after receipt of the request of the Holders; provided, however, that Emcore may not utilize this right more than once in any twelve-month period.

(d) In addition, Emcore shall not be obligated to effect, or to take any action to effect, any registration pursuant to this Section 1.2:

(i) After Emcore has effected one registration pursuant to this Section 1.2 and such registration has been declared or ordered effective;

(ii) During the period starting with the date sixty (60) days prior to Emcore's good faith estimate of the date of filing of, and ending on a date one hundred eighty (180) days after the effective date of, a registration subject to Section 1.3 hereof; provided that Emcore is actively employing in good faith all reasonable efforts to cause such registration statement to become effective; or

(iii) If the Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 1.11 below.

1.3 Emcore Registration. Subject to Section 1.14 below, if (but without any obligation to do so) Emcore proposes to register (including for this purpose a registration effected by Emcore for shareholders other than the Holders) any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash (other than a registration relating solely to the sale of securities to participants in an Emcore stock plan, a registration on any form which does not include substantially the same

information as would be required to be included in a registration statement covering the sale of the Registrable Securities or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), Emcore shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder given within twenty (20) days after mailing of such notice by Emcore in accordance with Section 2.5, Emcore shall, subject to the provisions of Section 1.8, cause to be registered under the Act all of the Registrable Securities that each such Holder has requested to be registered.

1.4 Obligations of Emcore. Whenever required under this Section 1 to effect the registration of any Registrable Securities, Emcore shall, as expeditiously as reasonably possible:

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or until the distribution contemplated in the Registration Statement has been completed; provided, however, that (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of Emcore; and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, such 120-day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold, provided that Rule 415, or any successor rule under the Act, permits an offering on a continuous or delayed basis, and provided further that applicable rules under the Act governing the obligation to file a post-effective amendment permit, in lieu of filing a post-effective amendment which (I) includes any prospectus required by Section 10(a)(3) of the Act or (II) reflects facts or events representing a material or fundamental change in the information set forth in the registration statement, the incorporation by reference of information required to be included in (I) and (II) above to be contained in periodic reports filed pursuant to Section 13 or 15(d) of the 1934 Act in the registration statement.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided that Emcore shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by Emcore are then listed.

(h) Provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(i) Cause the Registration Statement to include in the plan of distribution (and other relevant sections) the names of the distributees or transferees of any Holders that are limited partnerships or limited liability companies provided in writing to Emcore so as to permit such transferees and distributees to make sales pursuant to such registration statement.

1.5 Furnish Information. It shall be a condition precedent to the obligations of Emcore to take any action pursuant to this Section 1 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to Emcore such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be required to effect the registration of such Holder's Registrable Securities.

1.6 Expenses of Demand Registration. Emcore shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to a registration pursuant to Section 1.2 for each Holder (which right may be assigned as provided in Section 1.13), including (without limitation) all registration, filing, and qualification fees, printers, legal and accounting fees relating or apportionable

thereto, but excluding underwriting discounts and commissions relating to Registrable Securities.

1.7 Expenses of Emcore Registration. Emcore shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to the registrations pursuant to Section 1.3 for each Holder (which right may be assigned as provided in Section 1.13), including (without limitation) all registration, filing, and qualification fees, printers, legal and accounting fees relating or apportionable thereto, but excluding underwriting discounts and commissions relating to Registrable Securities.

1.8 Underwriting Requirements. In connection with any offering involving an underwriting of shares of Emcore's capital stock, Emcore shall not be required under Section 1.3 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between Emcore and the underwriters selected by it, and then only in such quantity as the underwriters determine in their sole discretion will not, jeopardize the success of the offering by Emcore. If the total amount of securities, including Registrable Securities, requested by shareholders to be included in such offering exceeds the amount of securities sold other than by Emcore that the underwriters determine in their sole discretion is compatible with the success of the offering, then Emcore shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters determine in their sole discretion will not jeopardize the success of the offering (the securities so included to be apportioned pro rata among the Holders according to the total amount of securities entitled to be included therein owned by each Holder or in such other proportions as shall mutually be agreed to by such Holders.

1.9 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 1.

1.10 Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 1:

(a) To the extent permitted by law, Emcore will indemnify and hold harmless each Holder, any underwriter (as defined in the Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Act or the 1934 Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Act, or the 1934 Act, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact

required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by Emcore of the Act, the 1934 Act or any rule or regulation promulgated under the Act or the 1934 Act; and Emcore will pay to each such Holder, underwriter or controlling person any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 1.10(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of Emcore, nor shall Emcore be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder, underwriter or controlling person.

(b) To the extent permitted by law, each Holder will indemnify and hold harmless Emcore, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls Emcore within the meaning of the Act, any underwriter, any other Holder selling securities in such registration statement and any controlling person of any such underwriter or other Holder, against any losses, claims, damages, or liabilities (joint or several) to which any of the foregoing persons may become subject, under the Act or the 1934 Act to the extent and only to the extent such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation that occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration, and each such Holder will pay any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this subsection 1.10(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 1.10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, that, in no event shall any indemnity under this subsection 1.10(b) exceed the gross proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 1.10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 1.10, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified

party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 1.10, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 1.10.

(d) If the indemnification provided for in this Section 1.10 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission, provided that, in no event shall the amount contributed by any Holder under this subsection 1.10(d) exceed the gross proceeds from the offering received by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) The obligations of Emcore and Holders under this Section 1.10 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 1, and otherwise.

1.11 Form S-3 Registration. Subject to Section 1.14 below, in case Emcore shall receive from any Holder or Holders a written request or requests that Emcore effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, Emcore will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and

distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within 15 days after receipt of such written notice from Emcore; provided, however, that Emcore shall not be obligated to effect any such registration, qualification or compliance, pursuant to this section 1.11: (1) if Form S-3 is not available for such offering by the Holders; (2) if the Holders, together with the holders of any other securities of Emcore entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than \$10,000,000; (3) if Emcore shall furnish to the Holders a certificate signed by the President of Emcore stating that in the good faith judgment of the Board of Directors of Emcore, it would be seriously detrimental to Emcore and its shareholders for such Form S-3 Registration to be effected at such time, in which event Emcore shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than 90 days after receipt of the request of the Holder or Holders under this Section 1.11; provided, however, that Emcore shall not utilize this right more than once in any twelve month period; (4) if Emcore has, within the twelve (12) month period preceding the date of such request, already effected one registration on Form S-3 for the Holders pursuant to this Section 1.11; or (5) in any particular jurisdiction in which Emcore would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, Emcore shall file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Holders. All expenses incurred in connection with a registration requested pursuant to Section 1.12, including (without limitation) all registration, filing, qualification, printer's and accounting fees and the reasonable fees and disbursements of counsel for the selling Holder or Holders and counsel for Emcore, shall be borne pro rata by the Holder or Holders participating in the Form S-3 Registration. Registrations effected pursuant to this Section 1.12 shall not be counted as demands for registration or registrations effected pursuant to Sections 1.2 or 1.3, respectively.

1.12 Assignment of Registration Rights. The rights to cause Emcore to register Registrable Securities pursuant to this Section 1 may be assigned (but only with all related obligations) by a Holder to a transferee or assignee of such securities, provided: (a) Emcore is furnished with prior written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; (b) such transferee or assignee agrees in writing to be bound by and subject to the terms and conditions of this Agreement, including without limitation the provisions of Section 1.13 below; and (c) such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the Act.

1.13 "Market Stand-Off" Agreement. Each Holder hereby agrees that, during the period of duration specified by Emcore and an underwriter of common stock or other securities of Emcore, following the effective date of a registration statement of Emcore filed under the Act, it shall not, to the extent requested by Emcore and such underwriter, directly or indirectly sell, offer to sell, contract to sell (including, without limitation, any short sale), grant any option to purchase or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of Emcore held by it at any time during such period except common stock included in such registration; provided, however, that such market stand-off time period shall not exceed (180) days and all officers and directors of the Company enter into similar agreements.

In order to enforce the foregoing covenant, Emcore may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

1.14 Limitation on Registration. Emcore shall have no obligation to register any Registrable Securities under Sections 1.2, 1.3 or 1.11 of this Agreement in excess of 730,000 shares of Registrable Securities. In the event that the number of shares of Registrable Securities to be registered exceeds 730,000 shares of Registrable Securities, then the number of shares of Registrable Securities to be registered pursuant to this Agreement shall be allocated among all participating Holders as follows: (i) all participating Holders holding Registrable Securities that prior to the consummation of the transactions contemplated by the Merger Agreement were evidenced by shares of MODE common stock shall be entitled to include all of the Registrable Securities held by such Holders in any such registration and (ii) participating Holders holding Registrable Securities that prior to the consummation of the transactions contemplated by the Merger Agreement were evidenced by shares of MODE preferred stock shall be entitled to include such number of shares of Registrable Securities as are permissible hereunder in proportion (as nearly as practicable) to the amount of Registrable Securities owned by each such participating Holder.

1.15 Termination of Registration Rights. The right of any Holder to request registration or inclusion in any registration pursuant to Section 1 shall terminate if (i) Emcore has registered 730,000 shares of Registrable Securities or (ii) all shares of Registrable Securities held by such Holder may immediately be sold under Rule 144 during any 90-day period.

2. Miscellaneous.

2.1 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties (including transferees of any shares of Registrable Securities). Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any

rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

2.2 Governing Law. This Agreement shall be governed by and construed under the laws of the State of New York as applied to agreements among New York residents entered into and to be performed entirely within New York.

2.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

2.4 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

2.5 Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given upon personal delivery to the party to be notified or upon deposit with the United States Post Office, by registered or certified mail, postage prepaid and addressed to the party to be notified at the address indicated for such party on the signature page hereof, or at such other address as such party may designate by ten (10) days' advance written notice to the other parties.

2.6 Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

2.7 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of Emcore and the holders of a majority of the Registrable Securities then outstanding. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any Registrable Securities then outstanding, each future holder of all such Registrable Securities, and Emcore.

2.8 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

2.9 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

2.10 Entire Agreement; Amendment; Waiver. This Agreement (including the Exhibits hereto, if any) constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof. This Agreement shall supersede all prior agreements with regard to the subjects hereof and thereof in their entirety, including, without limitation, the registration rights contained in that certain Amended and Restated Registration Rights Agreement, dated July 16, 1996 by and among MODE, the Existing Stockholders (as defined therein) and the Purchasers (as defined therein), as amended, which prior agreements shall be null, void and of no further force or effect as of the date hereof.

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

EMCORE CORPORATION

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

Reuben F. Richards, Jr., President

Address: 394 Elizabeth Ave.
Somerset, New Jersey 08873

HOLDERS

By: -----

Address: -----

MICROOPTICAL DEVICES, INC.

By: /s/ Robert Bryan

Name:
Title:

Address: 5601-C Midway Park Place, N.E.
Albuquerque, New Mexico 87109

SCHEDULE A

NAME OF HOLDER - - - - -	NUMBER OF SHARES OF EMCORE COMMON STOCK ISSUED TO SUCH HOLDER - - - - -	NUMBER OF SHARES OF REGISTRABLE SECURITIES - - - - -
Richard L. Hardison	2,658	665
Robert Bryan	225,987	56,497
Thomas M. Brennan	225,987	56,497
William B. Patton, Jr.	86,850	21,713
ARCH Venture Fund II, L.P.	329,701	309,762
AM Fund I, L.P.	104,034	104,034
Murphree New Mexico Investors I, L.C.	173,391	173,391
AMP, Inc.	184,951	184,951
Shelby Private Placement Group (MODE), LLC	46,238	46,238
Falcon Technology Partners II., L.P.	23,118	23,118
Harvey B. Cash	5,779	5,779
BDM International, Inc.	26,586	6,647
Clinton W. Bybee	26,586	6,647
- - - - -	- - - - -	- - - - -
Totals	1,461,866	995,939

ESCROW AGREEMENT

This Escrow Agreement (this "Agreement") is entered into as of December 5, 1997, by and among Emcore Corporation, a New Jersey corporation ("Emcore"), the stockholders of MicroOptical Devices, Inc., a Delaware corporation ("MODE"), identified on Schedule I hereto (collectively, the "Principal MODE Stockholders") and First Union National Bank (the "Escrow Agent"). Emcore and the Principal MODE Stockholders are sometimes referred to herein as the "Interested Parties."

WHEREAS, Emcore, EMKR Acquisition Corporation, a Delaware corporation ("Acquisition Subsidiary"), MODE and the Principal MODE Stockholders have entered into an Agreement and Plan of Merger dated December 5, 1997 (the "Merger Agreement"), pursuant to which Acquisition Subsidiary will merge with and into MODE, with MODE as the surviving corporation of the merger; and

WHEREAS, the Merger Agreement provides that an escrow account will be established to secure the Principal MODE Stockholders' indemnification obligations to the Indemnified Persons (as defined in Article VII the Merger Agreement) under the Merger Agreement on the terms and conditions set forth herein; and

WHEREAS, the parties hereto desire to establish the terms and conditions pursuant to which such escrow account will be established and maintained;

NOW, THEREFORE, the parties hereto hereby agree as follows:

1. Defined Terms. Capitalized terms used in this Agreement and not otherwise defined shall have the meanings given them in the Merger Agreement.

2. Escrow Committee. The Principal MODE Stockholders will act as the escrow committee (the "Escrow Committee"), with full power and authority, to act as their attorney-in-fact on behalf of such Principal MODE Stockholders to contest, settle, compromise or otherwise dispose of any claim made by any Indemnified Person in accordance with Article VII of the Merger Agreement and the terms hereof, including without limitation to make, execute, acknowledge and deliver all stock certificates and powers, waivers, receipts, notices, instructions, certificates and other documents in connection with the foregoing. No further documentation shall be required to evidence such appointment, and such power of attorney shall be coupled with an interest, thereby confirming such appointment as irrevocable. The Escrow Committee shall be empowered to act on behalf of the Principal MODE Stockholders with respect to all matters arising under Article VII of the Merger Agreement and the terms hereof. If any member of the Escrow Committee shall die, become disabled or otherwise be unable or unwilling to fulfill his responsibilities hereunder, the remaining members of the Escrow Committee shall select a

replacement member. Such remaining members of the Escrow Committee shall notify Emcore and the Escrow Agent in writing of any change in the composition of the Escrow Committee.

3. Consent of Principal MODE Stockholders. Pursuant to the Merger Agreement, the Principal MODE Stockholders have consented to the establishment of this escrow to secure the Principal MODE Stockholders' indemnification obligations under Article VII of the Merger Agreement in the manner set forth herein.

4. Escrow and Indemnification.

(a) Escrow of Shares. On the Closing Date, Emcore shall deposit, on behalf of the MODE Stockholders, with the Escrow Agent a certificate for the number of Escrow Shares specified in Section 1.5 of the Merger Agreement, issued in the name of the Escrow Agent or its nominee. The Escrow Agent agrees to accept delivery of the Escrow Shares and to hold the Escrow Shares in an escrow account (the "Escrow Account"), subject to the terms and conditions of this Agreement. The Escrow Account shall not be an interest bearing account and none of the cash, if any, held in the Escrow Account shall be invested.

(b) Indemnification. The Principal MODE Stockholders have agreed in Article VII of the Merger Agreement to indemnify and hold harmless the Indemnified Persons from and against specified Damages. In no event shall there be any recovery by Emcore against the Escrow Shares for any Damages in respect of which a written claim is not made by Emcore on or prior to the applicable Termination Date (as defined in the Merger Agreement) with respect to such claim. The Escrow Shares shall be security for the foregoing obligations of the Principal MODE Stockholders, subject to the limitations, and in the manner provided, in this Agreement and the Merger Agreement.

(c) Distributions and Dividends. All dividends and other distributions on Escrow Shares, when and if received by the Escrow Agent, shall be remitted and paid by the Escrow Agent directly to the MODE Stockholders in accordance with their proportionate interests and shall not be subject to this Agreement or any indemnification claims of Emcore under this Agreement. Additional shares of Emcore issued on or with respect to the Escrow Shares as a result of stock splits, stock dividends or other similar capital adjustments to, or recapitalizations on, the Escrow Shares shall be retained in the Escrow Account subject to the terms hereof and shall constitute Escrow Shares.

(d) Voting of Shares. All voting rights with respect to Escrow Shares may be exercised by the MODE Stockholders in accordance with their proportionate interests therein, and the Escrow Agent shall from time to time execute and deliver to the MODE Stockholders such proxies, consents, or other documents as may be necessary to enable to the MODE Stockholders to exercise such rights. In the absence of any exercise of

such voting rights with respect to Escrow Shares by the MODE Stockholders, the Escrow Agent shall not vote any of the Escrow Shares.

(e) Transferability. The interest of the Principal MODE Stockholders in the Escrow Shares and any other property comprising the Escrow Account (collectively with the Escrow Shares, the "Escrow Property") shall not be assignable or transferable.

5. Administration of Escrow Account for Indemnification Claims. The Escrow Agent shall administer the Escrow Account as follows:

(a) If an Indemnified Person has incurred or suffered Damages for which it is entitled to indemnification under Section 7.1(a) of the Merger Agreement, the Indemnified Person shall, prior to the Termination Date with respect to a particular claim, give written notice of such claim (a "Claim Notice") to the Escrow Committee and the Escrow Agent. Each Claim Notice shall state the amount of Claimed Damages (the "Claimed Amount") and the basis for such claim.

(b) Claims for indemnification involving a claim or legal proceeding by a third party shall be made in accordance with the procedures set forth in Article VII of the Merger Agreement and the provisions of this Section 5. For indemnification claims not involving any claim or legal proceeding by a third party, the procedures herein shall apply. Within 20 days after delivery of a Claim Notice, the Escrow Committee shall provide to the Indemnified Person, with a copy to the Escrow Agent, a written response (the "Response Notice") in which the Escrow Committee shall: (i) agree that Escrow Property having a Fair Market Value (as computed pursuant to Section 7 below) equal to the full Claimed Amount may be released from the Escrow Account to the Indemnified Person, (ii) agree that Escrow Property having a Fair Market Value equal to part, but not all, of the Claimed Amount (the "Agreed Amount") may be released from the Escrow Account to the Indemnified Person, or (iii) contest that any of the Escrow Property may be released from the Escrow Account to the Indemnified Person. The Escrow Committee may contest the release of Escrow Property having a Fair Market Value equal to all or a portion of the Claimed Amount only based upon a good faith belief that all or such portion of the Claimed Amount does not constitute Damages for which the Indemnified Person is entitled to indemnification under Article VII of the Merger Agreement. If no Response Notice is delivered by, and received by the Escrow Agent from, the Escrow Committee within such 20-day period, the Escrow Committee shall be deemed to have agreed that Escrow Property having a Fair Market Value equal to all of the Claimed Amount may be released to the Indemnified Person from the Escrow Account.

(c) If the Escrow Committee in the Response Notice agrees (or is deemed to have agreed) that Escrow Property having a Fair Market Value equal to all of the Claimed Amount may be released from the Escrow Account to the Indemnified Person, the Escrow Agent shall, promptly following the earlier of the required delivery date for the

Response Notice or the delivery of the Response Notice, transfer, deliver and assign to the Indemnified Person the Escrow Property having a Fair Market Value equal to the Claimed Amount (or such lesser amount of Escrow Property as is then held in the Escrow Account).

(d) If the Escrow Committee in the Response Notice agrees that Escrow Property having a Fair Market Value equal to part, but not all, of the Claimed Amount may be released from the Escrow Account to the Indemnified Person, the Escrow Agent shall promptly following the delivery of the Response Notice transfer, deliver and assign to the Indemnified Person Escrow Property having a Fair Market Value equal to the Agreed Amount (or such lesser amount of Escrow Property as is then held in the Escrow Account).

(e) If the Escrow Committee in the Response Notice contests the release of Escrow Property having a Fair Market Value equal to all or part of the Claimed Amount (the "Contested Amount"), the Escrow Committee and the Indemnified Person shall attempt promptly and in good faith to agree upon the rights of the parties with respect to the Contested Amount. If the Escrow Committee and the Indemnified Person should so agree, a memorandum setting forth such agreement shall be prepared and signed by both parties and delivered to the Escrow Agent and, if such agreement provides that all or a portion of the Contested Amount is to be paid to the Indemnified Person, the Escrow Agent shall transfer, assign and deliver to the Indemnified Person from the Escrow Account an amount of Escrow Property having a Fair Market Value equal to the amount so agreed. If no such agreement can be reached after good faith negotiation over a period of 15 days (or such longer period as the Indemnified Person and the Escrow Committee may mutually agree), the matter shall be settled by binding arbitration in New York. All claims shall be settled by a single arbitrator mutually agreeable to the Indemnified Person and the Escrow Committee, or if they cannot agree on a single arbitrator in 15 days, by three arbitrators, in accordance with the Commercial Arbitration Rules then in effect of the American Arbitration Association (the "AAA Rules"), as follows: If a single arbitrator has not been mutually agreed upon, the Escrow Committee and the Indemnified Person shall each designate one arbitrator within 45 days of the delivery of the Escrow Committee's Response Notice contesting the Claimed Amount. The Escrow Committee and the Indemnified Person shall cause such designated arbitrators mutually to agree upon and designate a third arbitrator; provided, however, that (i) failing such agreement within 75 days of delivery of the Escrow Committee's Response Notice, the third arbitrator shall be appointed in accordance with the AAA Rules, and (ii) if either the Escrow Committee or the Indemnified Person fail to timely designate an arbitrator, the dispute shall be resolved by the one arbitrator timely designated. The Escrow Committee on the one hand, and the Indemnified Person, on the other hand, shall pay the fees and expenses of their respectively designated arbitrators and shall bear equally the fees and expenses of the third arbitrator (or of the sole arbitrator, in the event a single arbitrator decides the matter). The Escrow Committee and the Indemnified Person shall cause the arbitrators to decide the matter to be arbitrated pursuant hereto within 60 days after the appointment of the last arbitrator. The arbitrators' decision shall relate solely to whether the

Indemnified Person is entitled to receive the Contested Amount (or a portion thereof) pursuant to the applicable terms of the Merger Agreement and this Agreement. The final decision of the arbitrator, or a majority of the arbitrators in the case of three arbitrators, shall be furnished to the Escrow Committee and the Indemnified Person in writing and shall constitute a conclusive determination of the issue in question, binding upon the Principal MODE Stockholders and the Indemnified Person, and shall not be contested by any of them. Such decision may be used in a court of law only for the purpose of seeking enforcement of the arbitrators' award. The Escrow Committee and the Indemnified Person shall deliver a memorandum to the Escrow Agent setting forth such arbitrators decision in accordance with the second sentence of this paragraph.

(f) After delivery of a Response Notice that the Claimed Amount is contested by the Escrow Committee, the Escrow Agent shall continue to hold in the Escrow Account an amount of Escrow Property having a Fair Market Value sufficient to cover the Contested Amount (up to the amount of Escrow Property then available in the Escrow Account), notwithstanding the occurrence of the Release Date (as defined in Section 6(a) below), until (i) delivery of a copy of a settlement agreement executed by the Indemnified Person and the Escrow Committee setting forth instructions to the Escrow Agent as to the release of Escrow Property, if any, that shall be made with respect to the Contested Amount or (ii) delivery of a copy of the final award of the arbitrator, or a majority of the arbitrators in the case of three arbitrators, and the memo referenced in the last sentence of the preceding paragraph setting forth instructions to the Escrow Agent as to the release of Escrow Property, if any, that shall be made with respect to the Contested Amount. The Escrow Agent shall thereupon release Escrow Property from the Escrow Account (up to the amount of Escrow Property then available in the Escrow Account) in accordance with such agreement or instructions.

(g) If, as a result of any third party claim or legal proceeding subject to the indemnification procedures set forth in the Merger Agreement, any settlement has been entered into, or any judgment entered in favor of any third party (which is not subject to further appeal), the Indemnified Person may give notice of the resulting Damages to the Escrow Agent, together with a copy of the settlement or judgement and the Escrow Agent shall, promptly following the receipt of such notice, transfer, deliver and assign to the Indemnified Person an amount of Escrow Property having a Fair Market Value equal to such Damages (up to the amount of Escrow Property then available in the Escrow Account).

6. Release of Escrow Property.

(a) Promptly after receipt of a notice, jointly executed by the Escrow Committee and Encore, that the indemnification obligations of the Principal MODE Stockholders pursuant to Article VII of the Merger Agreement have terminated (the "Release Date"), the Escrow Agent shall deliver and/or submit for transfer, delivery and assignment to

Principal MODE Stockholders the balance of the Escrow Property then held in escrow (the "Escrow Balance").

(b) Notwithstanding the foregoing, if on the Release Date an Indemnified Person has previously given any Claim Notices that have not then been resolved in accordance with Section 5 above, the Escrow Agent shall retain in the Escrow Account an amount of the Escrow Balance having a Fair Market Value equal to the aggregate Claimed Amount covered by all such Claim Notices that have not then been resolved. Any Escrow Property retained in escrow pursuant to this Section 6(b) shall be disbursed in accordance with the terms of the resolution of the claims relating to any of the Escrow Property retained hereunder and the balance of such Escrow Property shall be distributed to the Principal MODE Stockholders promptly following the resolution of all such claims.

7. Valuation of Escrow Property. For purposes of this Agreement, the Fair Market Value of the Escrow Shares shall be \$19.39 per share (regardless of the actual trading prices for Emcore Common Stock), with appropriate adjustment to take into account any stock split, reverse stock split, stock dividend, recapitalization or other similar capital adjustments with respect to Escrow Shares. The Fair Market Value of all other Escrow Property, if any, shall be determined by the mutual agreement of Emcore and the Escrow Committee. In the event that the Escrow Committee and Emcore can not in good faith agree upon the Fair Market Value of such other Escrow Property, the matter shall be settled by binding arbitration in New York pursuant to the procedures set forth in Section 6(e) above.

8. Fees and Expenses of the Escrow Agent. Emcore hereby agrees to pay to the Escrow Agent its reasonable fees and expenses, including attorneys fees, travel expenses, postal and delivery charges, and all other out-of-pocket expenses, in accepting and performing its appointment as escrow agent hereunder.

9. General Terms and Standards Regarding the Escrow Agent.

Notwithstanding any terms of this Agreement to the contrary, each term of this Agreement, including without limitation each of the stated duties and responsibilities of the Escrow Agent set forth herein, shall be subject to the following terms and conditions:

(a) The duties, responsibilities and obligations of the Escrow Agent shall be limited to those expressly set forth in this Agreement (and the duty to exercise reasonable care in the physical safekeeping of any property held in escrow hereunder), and no implied duties, responsibilities or obligations shall be read into this Agreement against the Escrow Agent. Without limiting the generality of the foregoing, the Escrow Agent shall have no duty to take action to preserve or exercise rights in any property held by it hereunder (including, without limitation, against prior parties or otherwise).

(b) The Escrow Agent shall not be subject to, bound by, charged with notice of or be required to comply with or interpret any agreement or document (including without limitation the Merger Agreement) between or among the Interested Parties (whether or not reference to any such other agreement or documents expressed herein) other than this Agreement.

(c) The Escrow Agent shall in no instance be under any duty to give any property held by it hereunder any greater degree of care than it gives its own similar property. The Escrow Agent shall not be required to invest any funds held hereunder, and shall not be obligated to pay interest on uninvested funds. All amounts received by the Escrow Agent (and any credits to the Escrow Account) shall be conditional upon collection (and actual receipt by the Escrow Agent of final payment). In no event shall the Escrow Agent have any obligation to advance funds.

(d) The Escrow Agent may rely upon, and shall be protected in acting or refraining from acting upon, any written notice, instruction, statement, request; waiver, order, judgment, certification, consent, receipt or other paper or document furnished to it (not only as to genuineness, but also as to its due execution and validity, the genuineness of signatures appearing thereon and as to the truth and accuracy of any information therein contained), which it in good faith believes to be genuine and signed or presented by the proper person.

(e) Neither the Escrow Agent nor any of its directors, officers or employees shall be liable to anyone for any error of judgment, or for any act done or step taken or omitted to be taken by it or any of its directors, officers or employees, or for any mistake of fact or law, or for anything which it, or any of its directors, officers or employees, may do or refrain from doing in connection with or in the administration of this Agreement, unless and except to the extent the same constitutes gross negligence, bad faith or wilful misconduct on the part of the Escrow Agent. In no event shall the Escrow Agent be liable for any indirect, punitive, special or consequential damages, or any amount in excess of the value of the Escrow Property (as of the date of the action or omission giving rise to liability).

(f) The Escrow Agent may consult with, and obtain advice from, legal counsel (including, without limitation, in-house counsel) with respect to any question as to any of the provisions hereof or its duties hereunder, or any matter relating hereto, and the opinion of such counsel shall be full and complete authorization and protection in respect of any action reasonably taken, suffered or omitted by the Escrow Agent in good faith in accordance with the opinion and directions of such counsel. Emcore shall promptly pay, upon demand, the reasonable fees and expenses of such counsel.

(g) The Escrow Agent shall not be deemed to have notice of any fact, claim or demand with respect hereto unless actually known by an officer charged with

responsibility for administering this Agreement or unless in writing received by the Escrow Agent and making specific reference to this Agreement.

(h) No provision of this Agreement shall require the Escrow Agent to expend or risk its own funds, or to take any legal or other action hereunder which might in its judgment involve it in, or require it to incur in connection with the performance of its duties hereunder, any expense or any financial liability unless it shall be furnished with indemnification acceptable to it.

(i) Any permissive right of the Escrow Agent to take any action hereunder shall not be construed as duty.

(j) All indemnifications contained in this Agreement shall survive the resignation or removal of the Escrow Agent, and shall survive the termination of this Agreement.

(k) The Escrow Agent is not responsible for the recitals appearing in this Agreement. The recitals shall be deemed to be statements of the Interested Parties to this Agreement.

(l) The Escrow Agent has no responsibility for the sufficiency of this Agreement for any purpose. Without limiting the foregoing, if any security interest is referred to herein, the Escrow Agent shall have no responsibility for, and makes no representation or warranty as to, the creation, attachment or perfection of any such security interest or the sufficiency of this Agreement therefor.

(m) Nothing in this Agreement shall obligate the Escrow Agent to qualify to do business or act in any jurisdiction in which it is not presently qualified to do business, or be deemed to impose upon the Escrow Agent the duties of a trustee. The duties of the Escrow Agent under this Agreement are strictly ministerial in nature.

(n) In no event shall the Escrow Agent have any liability for any failure or inability of any of the Interested Parties to perform or observe his or its duties under the Agreement, or by reason of a breach of this Agreement by either of the Interested Parties. In no event shall the Escrow Agent be obligated to take any action against any of the Interested Parties to compel performance hereunder.

(o) The Escrow Agent shall in no instance be obligated to commence, prosecute or defend any legal proceedings in connection herewith. The Escrow Agent shall be authorized and entitled, however, in any instance to commence, prosecute or defend any legal proceedings in connection herewith, including without limitation any proceeding it may deem necessary to resolve any matter or dispute, to obtain a necessary

declaration of rights, or to appoint a successor upon resignation (and after failure by the Interested Parties to appoint a successor, as provided in Section 13).

(p) Whenever the terms hereof call for any notice, payment or other action on a day which is not a business day, such payment or action may be taken, or such notice given, as the case may be, on the next succeeding business day. As used herein, "business day" shall mean any day other than a Saturday or Sunday, or any other day on which the Escrow Agent is closed for business.

(q) In the event of any ambiguity or uncertainty under this Agreement, or in any notice, instruction, or other communication received by the Escrow Agent hereunder, the Escrow Agent may, in its reasonable discretion, refrain from taking action, and may retain the Escrow Property, until and unless it receives written instruction signed by all Interested Parties, or a decision by a court of competent jurisdiction which eliminates such uncertainty or ambiguity.

(r) If at any time Escrow Agent is served with any judicial or administrative order, judgement, decree, writ or other form of judicial administrative process which in any way relates to or affects the Escrow Property (including but not limited to orders of attachment or garnishment or other forms of levies or injunctions or stays relating to the Escrow Property), Escrow Agent is authorized to comply therewith in any manner as it or its legal counsel reasonably deems appropriate; and if the Escrow Agent complies with any such judicial or administrative order, judgement, decree, writ or other form of judicial or administrative process, Escrow Agent shall not be liable to any of the parties hereto or to any other person or entity notwithstanding that though such order, judgment, decree, writ or process may be subsequently modified, annulled, set aside, vacated, found to have been without proper jurisdiction, or otherwise determined to have been without legal force or effect.

(s) The Escrow Agent shall have no liability for the actions or omissions of any transfer agent, book-entry depository, nominee, correspondent, subagent or subcustodian, except to the extent that such action or omission of any transfer agent, book-entry depository, nominee, correspondent, subagent or subcustodian was caused by the Escrow Agent's own gross negligence, bad faith or willful misconduct.

10. Indemnification.

(a) General. Each of Emcore and the Principal MODE Stockholders, jointly and severally, hereby covenants and agrees to indemnify the Escrow Agent for, and to defend and hold harmless the Escrow Agent from and against, any and every loss, liability, damage, claim, cost and expense of any nature incurred or suffered by the Escrow Agent and arising out of or in connection with this Agreement or the administration of this Agreement or the performance or observance by the Escrow Agent of

its responsibilities or services under this Agreement (including but not limited to reasonable attorneys fees and other costs and expenses of defending or preparing to defend against any claim or liability), unless and except to the extent such loss, liability, damage, cost or expense shall be caused by the Escrow Agent's own willful misconduct, bad faith or gross negligence.

(b) Tax-Related Matters. Each of Emcore and the Principal MODE Stockholders, jointly and severally, agree to assume any and all obligations imposed now or hereafter by any applicable tax law with respect to the payment of Escrow Property under this Agreement, and, without limiting the generality of Section 9(a) above, hereby agree to indemnify and hold the Escrow Agent harmless from and against any taxes, additions for late payment, interest, penalties and other expenses, that may be assessed against the Escrow Agent on any such payment or other activities under this Agreement. Emcore and the Principal MODE Stockholders undertake to instruct the Escrow Agent in writing with respect to the Escrow Agent's responsibility for withholding and other taxes, assessments or other governmental charges, certifications and governmental reporting in connection with its acting as Escrow Agent under this Agreement. Each of Emcore and the Mode Stockholders, jointly and severally, agrees to indemnify and hold the Escrow Agent harmless from any liability on account of taxes, assessments or other governmental charges, including without limitation the withholding or deduction or the failure to withhold or deduct same, and any liability for failure to obtain proper certifications or to properly report to governmental authorities, to which the Escrow Agent may be or become subject in connection with or which arises out of this Agreement, including costs and expenses (including reasonable legal fees), interest and penalties. The Interested Parties shall each promptly provide to Escrow Agent with appropriate IRS Forms W-9 for taxpayer identification number certifications, or Forms W-8 for nonresident alien certifications in connection with any payments to be made to them.

11. Termination. This Agreement shall terminate upon the later of the Release Date or the distribution by the Escrow Agent of all of the Escrow Account in accordance with this Agreement; provided that the provisions of Sections 8 and 9 above shall survive such termination.

12. Notices. All notices, requests, demands, claims and other communications hereunder shall be in writing. Any notice, request, demand, claim, or other communication hereunder shall be deemed duly delivered three business days after it is sent by registered or certified mail, return receipt requested, postage prepaid, or one business day after it is sent via a reputable nationwide overnight courier service, in each case to the intended recipient as set forth below:

If to Emcore:

Emcore Corporation
394 Elizabeth Avenue
Somerset, NJ 08873
Attn: Reuben F. Richards, Jr.

Copy to:

Brobeck, Phleger & Harrison LLP
1633 Broadway
47th Floor
New York, NY 10019
Attn: Ellen B. Corenswet, Esq.
Babak Yaghmaie, Esq.

If to the Principal MODE
Stockholders:

Robert Bryan
Co-President and Founder

Thomas Brennan
Co-President and Founder

Copy to:

Vinson & Elkins L.L.P.
1001 Fannin Street
Suite 2300
Houston, TX 77002-6760
Attn: Keith R. Fullenweider, Esq.

If to the Escrow Agent:

First Union National Bank
765 Broad Street
Newark, New Jersey
Attn: Corporate Trust Administrator

Any party may give any notice, request, demand, claim or other Communication hereunder by personal delivery or telecopy, but no such notice, request, demand, claim or other communication shall be deemed to have been duly given unless and until it actually is received by the party for whom it is intended. Any party may change the address to which notices, requests, demands, claims and other communications hereunder are to be delivered by giving the other parties notice in the manner herein set forth. Copies of any notice, request, demand, claim or other communication hereunder by personal delivery or telecopy given to the Escrow Agent by either party, shall be delivered to the other party as soon thereafter as practicable.

13. Successor Escrow Agent. In the event the Escrow Agent becomes unavailable or unwilling to continue in its capacity herewith, the Escrow Agent may resign and be discharged from its duties or obligations hereunder by delivering a resignation to the parties to this Agreement, not less than 60 days prior to the date when such resignation shall take effect. Emcore may appoint a successor Escrow Agent without the consent of the Principal MODE Stockholders so long as such successor is a bank with assets of at least

\$100 million, and may appoint any other successor Escrow Agent with the consent of the Principal MODE Stockholders, which shall not be unreasonably withheld. If, within such notice period, Emcore provides to the Escrow Agent written instructions with respect to the appointment of a successor Escrow Agent and directions for the transfer of any Escrow Property then held by the Escrow Agent to such successor, the Escrow Agent shall act in accordance with such instructions and promptly transfer such Escrow Property to such designated successor. If no successor is so appointed, the Escrow Agent may apply to a court of competent jurisdiction for such appointment.

14. General.

(a) Governing Law, Assigns. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York without regard to conflict-of-law principles and shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns.

(b) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

(c) Entire Agreement. This Agreement constitutes the entire understanding and agreement of the parties with respect to the subject matter of this Agreement and Supersedes all prior agreements or understandings, written or oral, between the parties with respect to the subject matter hereof.

(d) Waivers. No waiver by any party hereto of any condition or of any breach of any provision of this Escrow Agreement shall be effective unless in writing. No waiver by any party of any such condition or breach, in any one instance, shall be deemed to be a further or continuing waiver of any such condition or breach or a waiver of any other condition or breach of any other provision contained herein.

(e) Amendment. This Agreement may be amended only with the written consent of Emcore, the Escrow Agent and the Escrow Committee.

[SIGNATURES ARE ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties have duly executed this
Escrow Agreement as of the day and year first above written.

EMCORE CORPORATION

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

Reuben F. Richards, Jr., President

PRINCIPAL MODE STOCKHOLDERS:

/s/ Principal Mode Stockholders

FIRST UNION NATIONAL BANK,
AS ESCROW AGENT:

/s/ First Union National Bank

EMPLOYMENT AGREEMENT

This Employment Agreement (the "Agreement") is entered into as of December 5, 1997 by and between EMCORE CORPORATION, a New Jersey corporation ("Emcore"), and Robert P. Bryan (the "Executive") Emcore and the Executive shall hereinafter collectively be referred to as the "Parties".

W I T N E S S E T H

WHEREAS, Emcore and the Executive, along with MicroOptical Devices, Inc., a Delaware corporation ("MODE"), and certain other stockholders of MODE, have entered into that certain Agreement and Plan of Merger of even date herewith (the "Merger Agreement"), pursuant to which, for good and valuable mutual consideration, MODE will merge with and into Emcore;

WHEREAS, pursuant to the Merger Agreement, the Executive will receive 225,987 shares of common stock of Emcore in consideration for shares of common stock, \$0.001 par value per share, of MODE currently held by the Executive;

WHEREAS, a condition to the consummation of the transactions contemplated by the Merger Agreement, is the execution and delivery by the Executive of this Agreement;

WHEREAS, Emcore desires to employ Executive on the terms and conditions herein contained; and

WHEREAS, Executive is willing to enter into this Agreement for employment with the duties outlined herein on a full-time basis;

WHEREAS, an important part of the Executive's duties will be to develop goodwill for Emcore through personal contact with clients, employees and others having business relations with Emcore, and there is a danger that this goodwill, a proprietary asset of Emcore, may follow Executive when his employment relationship with Emcore terminates.

NOW, THEREFORE, in consideration of the employment of Executive by Emcore, Emcore and Executive agree as follows:

1. Term of the Agreement. Emcore shall employ Executive and Executive shall accept employment with Emcore for the three (3) year period commencing on

the date hereof (the "Commencement Date") and ending December 4, 2000 (the "Employment Period"), subject, however, to prior termination as hereinafter provided in Section 5. Thereafter, unless either Party provides the other Party, no later than ninety (90) days prior to the end of the Employment Period, with notice of its or his intention not to extend the Agreement and the Employment Period as hereinafter set forth, this Agreement and the Employment Period shall automatically be extended for subsequent one (1) year periods and the provisions hereof shall remain applicable for each such subsequent period.

2. Executive's Title, Duties and Obligations. Executive shall serve as Vice President-MODE Division of Emcore. Executive shall at all times report to the President and Chief Executive Officer of Emcore, and shall be subject to the policies established by the President and Chief Executive Officer, and the Board of Directors, of Emcore and shall discharge his responsibilities in a competent and faithful manner, consistent with sound business practices.

3. Devotion of Time to Emcore's Business.

a. Full-Time Efforts. During his employment with Emcore, Executive shall devote all of his business time, attention and efforts to the business of Emcore and MODE.

b. No Other Employment. During his employment with Emcore, Executive shall not, whether directly or indirectly, render any services of a commercial or professional nature to any other person or organization, whether for compensation or otherwise, without the prior written consent of Emcore, which shall not be unreasonably withheld, but shall be subject to the provisions of 3(c) below.

c. Non-Competition. During his employment with Emcore and for a period of one (1) year thereafter, Executive shall not, directly or indirectly, either as an employee, employer, consultant, agent, principal, partner, joint venturer, stockholder, corporate officer, director, or in any other individual or representative capacity, (i) engage in any business, activity or product design or development competitive with the business of MODE, in the United States of America or any other country in which Emcore or MODE conducted its business prior to the termination of the Executive's employment with Emcore, or (ii) solicit, divert or take away, or attempt to divert or to take away, the business or patronage of any of the clients, customers or accounts which were contacted, solicited or served by Executive while employed by Emcore or MODE. Notwithstanding anything to the contrary set forth in this Agreement, Executive's obligations under this Section 3.c. shall cease immediately upon (i) effective date of the termination of this Agreement by the Employee for Good Reason (as defined in Section 5 below), (ii) the issuance of a final judgment by a court of competent jurisdiction that Executive's employment hereunder was terminated without Good Cause (as defined in Section 5 below) in the event that (a) the Parties are in disagreement as to whether the Employee was terminated with or without Good

Cause and (b) Mr. Reuben F. Richards was serving as the President and Chief Executive officer of Emcore at the time of such termination, (iii) effective date of the termination in the event that (a) the Parties are in disagreement as to whether the Employee was terminated with or without Good Cause and (b) Mr. Reuben F. Richards was not serving as the President and Chief Executive Officer of Emcore at the time of such termination or (iv) effective date of the termination of this Agreement in the event that the Parties mutually agree that the Employee was terminated without Good Cause.

d. Non-Solicitation of Employees. During his employment with Emcore and for a period of one (1) year thereafter, Executive shall not directly or indirectly, as a stockholder, investor, partner, director, officer, employee or otherwise, (a) encourage, solicit or attempt to induce any person employed by Emcore or MODE to terminate his or her employment with Emcore or MODE or (b) hire or attempt to hire any person employed by Emcore or MODE; provided, however, that this obligation shall not affect any responsibility he may have as an employee of Emcore or MODE with respect to the bona fide hiring and firing of Emcore personnel in the ordinary course of business.

e. Exceptions. Notwithstanding the provisions of this Section 3, nothing herein shall prohibit Executive from holding less than five percent (5%) of the publicly-traded securities of any corporation.

f. Interpretation. The Parties agree that the duration, range of activities and geographic scope of the non-competition provision set forth in Section 3.c. are reasonable. In the event that any court of competent jurisdiction determines that any of the duration, range of activities or geographic scope, is unreasonable and that such provision is to that extent unenforceable, the Parties agree that the provision shall remain in full force and effect for the greatest time period, for the greatest number of activities and in the greatest area that would not render it unenforceable. The Parties intend that this non-competition provision shall be deemed to be a series of separate covenants, one for each and every county of each and every state of the United States of America and each and every political subdivision of each and every country outside the United States of America where this provision is intended to be effective.

g. Equitable Remedies. The restrictions contained in this Section 3 are necessary for the protection of the business and goodwill of Emcore and MODE and are considered by Executive to be reasonable for such purpose. Executive agrees that any breach of Sections 3.b., 3.c. or 3.d. of this Agreement is likely to cause Emcore and MODE substantial and irrevocable damage and therefore, in the event of any such breach, Executive agrees that Emcore, in addition to any other remedies which may be available, shall be entitled to specific performance and other injunctive relief.

4. Compensation and Benefits.

a. Base Compensation. During the term of this Agreement, Emcore shall pay to Executive a base annual compensation of One Hundred Twenty-Five Thousand Dollars (\$125,000), less all required withholdings (the "Base Salary") payable in accordance with Emcore's payroll policies. Executive shall receive annual merit reviews and shall be considered for annual raises based thereon. Parties will negotiate, in good faith, prior to end of the Employment Period an increase to Executive's base salary effective as of the first day of the first renewal period.

b. Performance Bonuses. Executive shall be entitled to receive annual bonuses, payable no later than ninety (90) days after the end of the applicable [calendar] [fiscal] year, up to an amount equal to fifty percent (50%) of the Executive's Base Salary based upon the achievement of certain performance objectives, as agreed upon in good faith by Emcore and the Executive (the "Performance Bonus").

c. Benefits. During his employment with Emcore, Executive will be entitled to receive all such health, medical, dental, life insurance, disability insurance, stock grants, stock options and all other benefits, as are provided to other executive officers of Emcore. Emcore reserves the right to modify, amend or terminate any benefits listed above at any time for any reason (provided such modification, amendment or termination is applicable to all executives receiving such benefits) but shall, in any case, provide reasonable health and disability benefits to Executive while Executive is a full-time employee of Emcore. Further, Executive will have the rights to participate in any vacation and savings plans implemented by Emcore which are provided to other executive officers of Emcore.

d. Expense Reimbursement. Executive shall be entitled to reimbursement from Emcore for all customary, ordinary and necessary business expenses incurred by him in the performance of his duties hereunder, provided that Executive shall furnish Emcore with reasonable and customary vouchers, receipts and other details of such expenses within thirty (30) days after they are incurred.

5. Termination of Employment.

a. Termination for Good Cause. Emcore may terminate Executive's employment at any time for Good Cause as determined by the President of Emcore, acting in good faith. For the purposes of this Agreement, "Good Cause" shall mean gross misconduct, gross neglect of duties, acts involving moral turpitude, material breach by Executive of Sections 3, 6, 7 or 8 of this Agreement, material breach by Executive of the terms of this Agreement, any act or omission involving fraud, embezzlement, breach of fiduciary duty, or misappropriation of any property or proprietary information of Emcore or MODE by Executive. If Executive's employment is terminated by Emcore with Good Cause, Executive shall be entitled to receive any unpaid compensation accrued, and business expenses incurred (as set forth in to Section 4.d.), through the last day of Executive's employment.

b. Termination without Good Cause. If Executive's employment is terminated by Emcore without Good Cause, Executive shall be entitled to receive (i) any unpaid compensation accrued, and business expenses incurred (as set forth in Section 4.d.), through the last day of Executive's employment, (ii) severance payments equal to his base compensation, payable on Emcore's normal payroll dates, during the Employment Period, (iii) continuation of medical, health, life insurance and disability insurance during the Employment Period and (iv) acceleration of such number of options that would have become vested and exercisable during the Employment Period (the "Severance Payment").

c. Termination by Executive. Executive may terminate this Agreement at any time, upon ninety (90) days' written notice to Emcore. If Executive terminates this Agreement under this Section 5.c. with Good Reason, Executive shall be entitled to receive the Severance Payments in accordance with Section 5.b. above. If Executive terminates this Agreement under this Section 5.c. without Good Reason, Executive shall only be entitled to any unpaid compensation accrued, and business expenses incurred (as set forth in Section 4.d.), through the last day of Executive's employment. For purposes of this Agreement, "Good Reason" shall mean (a) material breach by Emcore or its successor of the terms of the this Agreement, (b) material diminution in Executive's duties and/or responsibilities hereunder, (c) termination of this Agreement under Section 5.d. due to Executive becoming mentally or physically Disabled (as defined in Section 5.d), or (d) requiring Executive to relocate more than fifty (50) miles from Albuquerque, New Mexico.

d. Death or Disability. This Agreement shall terminate if Executive dies or is mentally or physically Disabled. For the purposes of this Agreement, "Disabled" shall mean a mental or physical condition that renders Executive incapable of performing his duties and obligations under this Agreement for three (3) or more consecutive months or for a total of six (6) months during any twelve (12) consecutive months, certified in writing by a physician mutually acceptable to the Parties. If this Agreement is terminated under this Section 5.d., Executive or his estate shall be entitled to any unpaid compensation accrued through the last day of Executive's employment.

6. Nondisclosure and Nonuse of Confidential Information.

(a) Executive will not disclose or use at any time, either during his or her employment with Emcore or for the next ten years thereafter, any Confidential Information of which Executive is or becomes aware, whether or not such information is developed by him or her, except to the extent that such disclosure or use is directly related to and required by Executive's performance of duties assigned to Executive by Emcore. Executive will take all appropriate steps to safeguard Confidential Information and to protect it against disclosure, misuse, copying, loss and theft.

(b) As used in this Agreement, the term "Confidential Information" shall mean information that is not generally known to the public and that is used, developed or

obtained by Emcore and/or MODE in connection with their respective businesses, including but not limited to (i) products or services, (ii) fees, costs and pricing structures, (iii) designs, (iv) analysis, (v) drawings, photographs and reports, (vi) computer software, including operating systems, applications and program listings, (vii) flow charts, manuals and documentation, (viii) data bases, (ix) accounting and business methods, (x) inventions, devices, new developments, methods and processes, whether patentable or unpatentable and whether or not reduced to practice, (xi) customers and clients and customer or client lists, (xii) other copyrightable works, (xiii) all technology and trade secrets and (xiv) all similar and related information in whatever form. Notwithstanding the following, Confidential Information will not include (i) any information that has been published in a form generally available to the public prior to the date Executive proposes to disclose or use such information or (ii) information that is widely known within Emcore's and/or MODE's industry, as applicable, although not generally known to the public. Information will not be deemed to have been published merely because individual portions of the information have been separately published, but only if all material features comprising such information have been published in combination.

7. Emcore's Ownership of Intellectual Property.

(a) In the event that Executive as part of his activities on behalf of Emcore generates, authors or contributes to any invention, design, new development, device, product, method or process (whether or not patentable or reduced to practice or comprising Confidential Information), any copyrightable work (whether or not comprising Confidential Information) or any other form of Confidential Information relating directly or indirectly to Emcore's business as now or hereinafter conducted (collectively, "Intellectual Property"), Executive acknowledges that such Intellectual Property is the exclusive property of Emcore and hereby assigns all right, title and interest in and to such Intellectual Property to Emcore or its designees. Any copyrightable work prepared in whole or in part by Executive will be deemed "a work made for hire" under Section 201(b) of the 1976 Copyright Act, and Emcore or its designees will own all of the rights comprised in the copyright therein. Executive will promptly and fully disclose all Intellectual Property to Emcore and will cooperate with Emcore to protect Emcore's interests in and rights to such Intellectual Property (including, without limitation, providing reasonable assistance in securing patent protection and copyright and trademark registrations, in the defense in any judicial opposition or other proceeding in respect of such registrations, and executing all documents as reasonably requested by Emcore, whether such requests occur prior to or after termination of Executive's employment with Emcore). In the event Emcore is unable, after reasonable effort, to secure Executive's signature on any application for letters patent, copyright or trademark registration or other documents regarding any legal protection relating to Intellectual Property, whether because of Executive's physical or mental incapacity or for any other reason whatsoever, Executive hereby irrevocably designate and appoint Emcore and its duly authorized officers and agents as his agent and attorney-in-fact, to act for and in Executive's behalf and stead to execute and file any such application or applications or other

documents and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, copyright or trademark registrations or any other legal protection thereon with the same legal force and effect as if executed by Executive.

(b) Section 7(a) of this Agreement regarding Emcore's ownership of Intellectual Property shall not apply to any invention for which no equipment, supplies, facilities or trade secret information of Emcore was used and which was developed entirely on Executive's own time, unless (i) the invention relates to the business of Emcore or to Emcore's actual or demonstrably anticipated research or development or (ii) the invention results from any work performed by Executive for Emcore.

(c) Executive has attached hereto a complete list of inventions which have been made or conceived or first reduced to practice by Executive alone or jointly with others prior to Executive's employment with Emcore which Executive desires to remove from the operation of this Agreement. If no such list is attached to this Agreement, Executive represents that Executive has not made, conceived or reduced to practice any such inventions and improvements at the time of signing this Agreement.

8. Delivery of Materials Upon Termination of Employment. As requested by Emcore from time to time and upon the termination of Executive's employment with Emcore for any reason, Executive will promptly deliver to Emcore upon request all copies and embodiments, in whatever form, of all Confidential Information or Intellectual Property in Executive's possession or within his or her control (including, but not limited to, written records, notes, photographs, manuals, notebooks, documentation, program listings, flow charts, magnetic media disks, diskettes, tapes and all other materials containing any Confidential Information or Intellectual Property) irrespective of the location or form of such material and, if requested by Emcore, will provide Emcore with written confirmation that all such materials have been delivered to Emcore.

9. Miscellaneous.

a. Representations and Agreements of Executive. Executive represents and warrants that he is free to enter into this Agreement and to perform the duties required hereunder, and that there are no employment contracts or understandings, restrictive covenants or other restrictions, whether written or oral, preventing the performance of his duties hereunder. Executive further represents and warrants that he does not possess any proprietary information with respect to any former employer which is subject to an agreement or understanding, whether written or oral, between Executive and such former employer which restricts Executive's use or disclosure of such proprietary information.

b. Governing Law. This Agreement shall be interpreted, construed, governed and enforced according to the laws of the State of New Mexico.

c. Amendments. No amendment or modification of the terms or conditions of this Agreement shall be valid unless in writing and signed by the parties hereto.

d. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be construed, if possible, so as to be enforceable under applicable law, else, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

e. Successors and Assigns. The rights and obligations of Emcore under this Agreement shall inure to the benefit of and shall be binding upon the successors and assigns of Emcore. Executive shall not be entitled to assign any of his rights or obligations under this Agreement.

f. Non-Waiver. The waiver of any term or condition of this Agreement shall not be deemed to constitute a waiver of any other term or condition.

g. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or two days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party at the address shown below such party's signature, or at such other address or addresses as either party shall designate to the other in accordance with this Section 5.h.

h. Entire Agreement. This Agreement, including the exhibits attached hereto, constitutes the entire agreement between the parties with respect to the matters contained herein and shall supercede all prior agreements by and between Executive and MODE relating to the matters contained herein.

i. Headings. The Section headings appearing in this Agreement are for purposes of easy reference and shall not be considered a part of this Agreement or in any way modify, amend, or affect its provisions.

j. Expenses. Emcore shall reimburse Executive for all reasonable legal fees and related out-of-pocket expenses incurred by Executive in enforcing his rights hereunder.

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

EMCORE CORPORATION

/s/ Reuben F. Richards, Jr.

By:

Title:

Address:

EXECUTIVE:

/s/ Robert P. Bryan

Robert P. Bryan

Address:

EMPLOYMENT AGREEMENT

This Employment Agreement (the "Agreement") is entered into as of December 5, 1997 by and between EMCORE CORPORATION, a New Jersey corporation ("Emcore"), and Thomas Brennan (the "Executive") Emcore and the Executive shall hereinafter collectively be referred to as the "Parties".

W I T N E S S E T H

WHEREAS, Emcore and the Executive, along with MicroOptical Devices, Inc., a Delaware corporation ("MODE"), and certain other stockholders of MODE, have entered into that certain Agreement and Plan of Merger of even date herewith (the "Merger Agreement"), pursuant to which, for good and valuable mutual consideration, MODE will merge with and into Emcore;

WHEREAS, pursuant to the Merger Agreement, the Executive will receive 225,987 shares of common stock of Emcore in consideration for shares of common stock, \$0.001 par value per share, of MODE currently held by the Executive;

WHEREAS, a condition to the consummation of the transactions contemplated by the Merger Agreement, is the execution and delivery by the Executive of this Agreement;

WHEREAS, Emcore desires to employ Executive on the terms and conditions herein contained; and

WHEREAS, Executive is willing to enter into this Agreement for employment with the duties outlined herein on a full-time basis;

WHEREAS, an important part of the Executive's duties will be to develop goodwill for Emcore through personal contact with clients, employees and others having business relations with Emcore, and there is a danger that this goodwill, a proprietary asset of Emcore, may follow Executive when his employment relationship with Emcore terminates.

NOW, THEREFORE, in consideration of the employment of Executive by Emcore, Emcore and Executive agree as follows:

1. Term of the Agreement. Emcore shall employ Executive and Executive shall accept employment with Emcore for the three (3) year period commencing on

the date hereof (the "Commencement Date") and ending December 4, 2000 (the "Employment Period"), subject, however, to prior termination as hereinafter provided in Section 5. Thereafter, unless either Party provides the other Party, no later than ninety (90) days prior to the end of the Employment Period, with notice of its or his intention not to extend the Agreement and the Employment Period as hereinafter set forth, this Agreement and the Employment Period shall automatically be extended for subsequent one (1) year periods and the provisions hereof shall remain applicable for each such subsequent period.

2. Executive's Title, Duties and Obligations. Executive shall serve as Vice President Emcore West. Executive shall at all times report to the President and Chief Executive Officer of Emcore, and shall be subject to the policies established by the President and Chief Executive Officer, and the Board of Directors, of Emcore and shall discharge his responsibilities in a competent and faithful manner, consistent with sound business practices.

3. Devotion of Time to Emcore's Business.

a. Full-Time Efforts. During his employment with Emcore, Executive shall devote all of his business time, attention and efforts to the business of Emcore and MODE.

b. No Other Employment. During his employment with Emcore, Executive shall not, whether directly or indirectly, render any services of a commercial or professional nature to any other person or organization, whether for compensation or otherwise, without the prior written consent of Emcore, which shall not be unreasonably withheld, but shall be subject to the provisions of 3(c) below.

c. Non-Competition. During his employment with Emcore and for a period of one (1) year thereafter, Executive shall not, directly or indirectly, either as an employee, employer, consultant, agent, principal, partner, joint venturer, stockholder, corporate officer, director, or in any other individual or representative capacity, (i) engage in any business, activity or product design or development competitive with the business of MODE, in the United States of America or any other country in which Emcore or MODE conducted its business prior to the termination of the Executive's employment with Emcore, or (ii) solicit, divert or take away, or attempt to divert or to take away, the business or patronage of any of the clients, customers or accounts which were contacted, solicited or served by Executive while employed by Emcore or MODE. Notwithstanding anything to the contrary set forth in this Agreement, Executive's obligations under this Section 3.c. shall cease immediately upon (i) effective date of the termination of this Agreement by the Employee for Good Reason (as defined in Section 5 below), (ii) the issuance of a final judgment by a court of competent jurisdiction that Executive's employment hereunder was terminated without Good Cause (as defined in Section 5 below) in the event that (a) the Parties are in disagreement as to whether the Employee was terminated with or without Good Cause and (b) Mr. Reuben F. Richards was serving as the President and Chief Executive

officer of Emcore at the time of such termination, (iii) effective date of the termination in the event that (a) the Parties are in disagreement as to whether the Employee was terminated with or without Good Cause and (b) Mr. Reuben F. Richards was not serving as the President and Chief Executive Officer of Emcore at the time of such termination or (iv) effective date of the termination of this Agreement in the event that the Parties mutually agree that the Employee was terminated without Good Cause.

d. Non-Solicitation of Employees. During his employment with Emcore and for a period of one (1) year thereafter, Executive shall not directly or indirectly, as a stockholder, investor, partner, director, officer, employee or otherwise, (a) encourage, solicit or attempt to induce any person employed by Emcore or MODE to terminate his or her employment with Emcore or MODE or (b) hire or attempt to hire any person employed by Emcore or MODE; provided, however, that this obligation shall not affect any responsibility he may have as an employee of Emcore or MODE with respect to the bona fide hiring and firing of Emcore personnel in the ordinary course of business.

e. Exceptions. Notwithstanding the provisions of this Section 3, nothing herein shall prohibit Executive from holding less than five percent (5%) of the publicly-traded securities of any corporation.

f. Interpretation. The Parties agree that the duration, range of activities and geographic scope of the non-competition provision set forth in Section 3.c. are reasonable. In the event that any court of competent jurisdiction determines that any of the duration, range of activities or geographic scope, is unreasonable and that such provision is to that extent unenforceable, the Parties agree that the provision shall remain in full force and effect for the greatest time period, for the greatest number of activities and in the greatest area that would not render it unenforceable. The Parties intend that this non-competition provision shall be deemed to be a series of separate covenants, one for each and every county of each and every state of the United States of America and each and every political subdivision of each and every country outside the United States of America where this provision is intended to be effective.

g. Equitable Remedies. The restrictions contained in this Section 3 are necessary for the protection of the business and goodwill of Emcore and MODE and are considered by Executive to be reasonable for such purpose. Executive agrees that any breach of Sections 3.b., 3.c. or 3.d. of this Agreement is likely to cause Emcore and MODE substantial and irrevocable damage and therefore, in the event of any such breach, Executive agrees that Emcore, in addition to any other remedies which may be available, shall be entitled to specific performance and other injunctive relief.

4. Compensation and Benefits.

a. Base Compensation. During the term of this Agreement, Emcore shall pay to Executive a base annual compensation of One Hundred Twenty-Five Thousand Dollars (\$125,000), less all required withholdings (the "Base Salary") payable in accordance with Emcore's payroll policies. Executive shall receive annual merit reviews and shall be considered for annual raises based thereon. Parties will negotiate, in good faith, prior to end of the Employment Period an increase to Executive's base salary effective as of the first day of the first renewal period.

b. Performance Bonuses. Executive shall be entitled to receive annual bonuses, payable no later than ninety (90) days after the end of the applicable [calendar] [fiscal] year, up to an amount equal to fifty percent (50%) of the Executive's Base Salary based upon the achievement of certain performance objectives, as agreed upon in good faith by Emcore and the Executive (the "Performance Bonus").

c. Benefits. During his employment with Emcore, Executive will be entitled to receive all such health, medical, dental, life insurance, disability insurance, stock grants, stock options and all other benefits, as are provided to other executive officers of Emcore. Emcore reserves the right to modify, amend or terminate any benefits listed above at any time for any reason (provided such modification, amendment or termination is applicable to all executives receiving such benefits) but shall, in any case, provide reasonable health and disability benefits to Executive while Executive is a full-time employee of Emcore. Further, Executive will have the rights to participate in any vacation and savings plans implemented by Emcore which are provided to other executive officers of Emcore.

d. Expense Reimbursement. Executive shall be entitled to reimbursement from Emcore for all customary, ordinary and necessary business expenses incurred by him in the performance of his duties hereunder, provided that Executive shall furnish Emcore with reasonable and customary vouchers, receipts and other details of such expenses within thirty (30) days after they are incurred.

5. Termination of Employment.

a. Termination for Good Cause. Emcore may terminate Executive's employment at any time for Good Cause as determined by the President of Emcore, acting in good faith. For the purposes of this Agreement, "Good Cause" shall mean gross misconduct, gross neglect of duties, acts involving moral turpitude, material breach by Executive of Sections 3, 6, 7 or 8 of this Agreement, material breach by Executive of the terms of this Agreement, any act or omission involving fraud, embezzlement, breach of fiduciary duty, or misappropriation of any property or proprietary information of Emcore or MODE by Executive. If Executive's employment is terminated by Emcore with Good Cause, Executive shall be entitled to receive any unpaid compensation accrued, and business

expenses incurred (as set forth in to Section 4.d.), through the last day of Executive's employment.

b. Termination without Good Cause. If Executive's employment is terminated by Emcore without Good Cause, Executive shall be entitled to receive (i) any unpaid compensation accrued, and business expenses incurred (as set forth in Section 4.d.), through the last day of Executive's employment, (ii) severance payments equal to his base compensation, payable on Emcore's normal payroll dates, during the Employment Period, (iii) continuation of medical, health, life insurance and disability insurance during the Employment Period and (iv) acceleration of such number of options that would have become vested and exercisable during the Employment Period (the "Severance Payments").

c. Termination by Executive. Executive may terminate this Agreement at any time, upon ninety (90) days' written notice to Emcore. If Executive terminates this Agreement under this Section 5.c. with Good Reason, Executive shall be entitled to receive the Severance Payments in accordance with Section 5.b. above. If Executive terminates this Agreement under this Section 5.c. without Good Reason, Executive shall only be entitled to any unpaid compensation accrued, and business expenses incurred (as set forth in Section 4.d.), through the last day of Executive's employment. For purposes of this Agreement, "Good Reason" shall mean (a) material breach by Emcore or its successor of the terms of the this Agreement, (b) material diminution in Executive's duties and/or responsibilities hereunder, (c) termination of this Agreement under Section 5.d. due to Executive becoming mentally or physically Disabled (as defined in Section 5.d), or (d) requiring Executive to relocate more than fifty (50) miles from Albuquerque, New Mexico.

d. Death or Disability. This Agreement shall terminate if Executive dies or is mentally or physically Disabled. For the purposes of this Agreement, "Disabled" shall mean a mental or physical condition that renders Executive incapable of performing his duties and obligations under this Agreement for three (3) or more consecutive months or for a total of six (6) months during any twelve (12) consecutive months, certified in writing by a physician mutually acceptable to the Parties. If this Agreement is terminated under this Section 5.d., Executive or his estate shall be entitled to any unpaid compensation accrued through the last day of Executive's employment.

6. Nondisclosure and Nonuse of Confidential Information.

(a) Executive will not disclose or use at any time, either during his or her employment with Emcore or for the next ten years thereafter, any Confidential Information of which Executive is or becomes aware, whether or not such information is developed by him or her, except to the extent that such disclosure or use is directly related to and required by Executive's performance of duties assigned to Executive by Emcore. Executive will take all appropriate steps to safeguard Confidential Information and to protect it against disclosure, misuse, copying, loss and theft.

(b) As used in this Agreement, the term "Confidential Information" shall mean information that is not generally known to the public and that is used, developed or obtained by Emcore and/or MODE in connection with their respective businesses, including but not limited to (i) products or services, (ii) fees, costs and pricing structures, (iii) designs, (iv) analysis, (v) drawings, photographs and reports, (vi) computer software, including operating systems, applications and program listings, (vii) flow charts, manuals and documentation, (viii) data bases, (ix) accounting and business methods, (x) inventions, devices, new developments, methods and processes, whether patentable or unpatentable and whether or not reduced to practice, (xi) customers and clients and customer or client lists, (xii) other copyrightable works, (xiii) all technology and trade secrets and (xiv) all similar and related information in whatever form. Notwithstanding the following, Confidential Information will not include (i) any information that has been published in a form generally available to the public prior to the date Executive proposes to disclose or use such information or (ii) information that is widely known within Emcore's and/or MODE's industry, as applicable, although not generally known to the public. Information will not be deemed to have been published merely because individual portions of the information have been separately published, but only if all material features comprising such information have been published in combination.

7. Emcore's Ownership of Intellectual Property.

(a) In the event that Executive as part of his activities on behalf of Emcore generates, authors or contributes to any invention, design, new development, device, product, method or process (whether or not patentable or reduced to practice or comprising Confidential Information), any copyrightable work (whether or not comprising Confidential Information) or any other form of Confidential Information relating directly or indirectly to Emcore's business as now or hereinafter conducted (collectively, "Intellectual Property"), Executive acknowledges that such Intellectual Property is the exclusive property of Emcore and hereby assigns all right, title and interest in and to such Intellectual Property to Emcore or its designees. Any copyrightable work prepared in whole or in part by Executive will be deemed "a work made for hire" under Section 201(b) of the 1976 Copyright Act, and Emcore or its designees will own all of the rights comprised in the copyright therein. Executive will promptly and fully disclose all Intellectual Property to Emcore and will cooperate with Emcore to protect Emcore's interests in and rights to such Intellectual Property (including, without limitation, providing reasonable assistance in securing patent protection and copyright and trademark registrations, in the defense in any judicial opposition or other proceeding in respect of such registrations, and executing all documents as reasonably requested by Emcore, whether such requests occur prior to or after termination of Executive's employment with Emcore). In the event Emcore is unable, after reasonable effort, to secure Executive's signature on any application for letters patent, copyright or trademark registration or other documents regarding any legal protection relating to Intellectual Property, whether because of Executive's physical or mental incapacity or for any other reason whatsoever, Executive hereby irrevocably designate and appoint Emcore

and its duly authorized officers and agents as his agent and attorney-in-fact, to act for and in Executive's behalf and stead to execute and file any such application or applications or other documents and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, copyright or trademark registrations or any other legal protection thereon with the same legal force and effect as if executed by Executive.

(b) Section 7(a) of this Agreement regarding Emcore's ownership of Intellectual Property shall not apply to any invention for which no equipment, supplies, facilities or trade secret information of Emcore was used and which was developed entirely on Executive's own time, unless (i) the invention relates to the business of Emcore or to Emcore's actual or demonstrably anticipated research or development or (ii) the invention results from any work performed by Executive for Emcore.

(c) Executive has attached hereto a complete list of inventions which have been made or conceived or first reduced to practice by Executive alone or jointly with others prior to Executive's employment with Emcore which Executive desires to remove from the operation of this Agreement. If no such list is attached to this Agreement, Executive represents that Executive has not made, conceived or reduced to practice any such inventions and improvements at the time of signing this Agreement.

8. Delivery of Materials Upon Termination of Employment. As requested by Emcore from time to time and upon the termination of Executive's employment with Emcore for any reason, Executive will promptly deliver to Emcore upon request all copies and embodiments, in whatever form, of all Confidential Information or Intellectual Property in Executive's possession or within his or her control (including, but not limited to, written records, notes, photographs, manuals, notebooks, documentation, program listings, flow charts, magnetic media disks, diskettes, tapes and all other materials containing any Confidential Information or Intellectual Property) irrespective of the location or form of such material and, if requested by Emcore, will provide Emcore with written confirmation that all such materials have been delivered to Emcore.

9. Miscellaneous.

a. Representations and Agreements of Executive. Executive represents and warrants that he is free to enter into this Agreement and to perform the duties required hereunder, and that there are no employment contracts or understandings, restrictive covenants or other restrictions, whether written or oral, preventing the performance of his duties hereunder. Executive further represents and warrants that he does not possess any proprietary information with respect to any former employer which is subject to an agreement or understanding, whether written or oral, between Executive and such former employer which restricts Executive's use or disclosure of such proprietary information.

b. Governing Law. This Agreement shall be interpreted, construed, governed and enforced according to the laws of the State of New Mexico.

c. Amendments. No amendment or modification of the terms or conditions of this Agreement shall be valid unless in writing and signed by the parties hereto.

d. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be construed, if possible, so as to be enforceable under applicable law, else, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

e. Successors and Assigns. The rights and obligations of Emcore under this Agreement shall inure to the benefit of and shall be binding upon the successors and assigns of Emcore. Executive shall not be entitled to assign any of his rights or obligations under this Agreement.

f. Non-Waiver. The waiver of any term or condition of this Agreement shall not be deemed to constitute a waiver of any other term or condition.

g. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or two days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party at the address shown below such party's signature, or at such other address or addresses as either party shall designate to the other in accordance with this Section 5.h.

h. Entire Agreement. This Agreement, including the exhibits attached hereto, constitutes the entire agreement between the parties with respect to the matters contained herein and shall supercede all prior agreements by and between Executive and MODE relating to the matters contained herein.

i. Headings. The Section headings appearing in this Agreement are for purposes of easy reference and shall not be considered a part of this Agreement or in any way modify, amend, or affect its provisions.

j. Expenses. Emcore shall reimburse Executive for all reasonable legal fees and related out-of-pocket expenses incurred by Executive in enforcing his rights hereunder.

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

EMCORE CORPORATION

/s/ Reuben F. Richards, Jr.

By:

Title:

Address:

EXECUTIVE:

/s/ Thomas Brennan

Thomas Brennan

Address:

FRIDAY DECEMBER 5, 12:32 PM EASTERN TIME

COMPANY PRESS RELEASE

EMCORE CORPORATION CLOSES ACQUISITION OF MICROOPTICAL DEVICES INC.
COMBINED ENTITY WILL LEAD DEVELOPMENT AND PRODUCTION OF VCSEL TECHNOLOGY INTO
NEXT-GENERATION PRODUCT LINES

SOMERSET, N.J.--(BUSINESS WIRE)--Dec. 5, 1997-- EMCORE Corporation (Nasdaq: EMKR - news), a leading provider of integrated compound semiconductor solutions, today announced the purchase of privately-held MicroOptical Devices, Inc. (MODE). MODE is a market leader in the design and development of high-quality optical components and subsystems based on vertical cavity surface-emitting laser (VCSEL) technology, which offers superior performance and higher efficiency over conventional compound semiconductor technologies. "By joining forces, EMCORE and MODE are in a strong position to shape both the future of VCSEL technology and the optical communications markets," said Reuben Richards, President and Chief Executive Officer of EMCORE.

MODE's microlasers and optical subsystems provide design, performance and significant cost advantages over their technical predecessors such as edge-emitting solid state lasers. Through the integration of VCSELs with leading OEM systems design, VCSELs provide enhanced performance benefits to market applications such as Internet access, onboard photonics, gigabit ethernet, local area networks, microarea networks such as chip-to-chip and board-to-board applications, DVD and fiberoptic switching. MODE's Gigalase(TM) and Gigarray(TM) product lines are currently being used by a variety of domestic and international OEM customers including AMP, IBM, Samsung, Fuji Xerox, Boeing and Northrop Grumman in the areas of data communications, telecommunications, optical storage and sensing.

Mr. Richards further commented, "MODE is a recognized leader in the development of VCSEL technology. We believe VCSEL technology will solve a number of technical bandwidth challenges applicable to the high-speed computing and communications markets, allowing optoelectronic applications to perform their functions at higher speeds with lower costs over traditional optoelectronic systems. We believe that with the acquisition of MODE, EMCORE will establish itself at the forefront of the next-generation development of the optoelectronic laser market which is estimated to grow to one billion dollars by 2000."

Under the terms of the agreement, EMCORE Corporation will issue 1.547 million shares of common stock in exchange for 100% of the outstanding capital stock of MODE. The transaction is valued at approximately \$30 million based on EMCORE's recent stock price. The acquisition will be accounted for as a purchase. In connection with the closing of the transaction, a significant portion of the purchase price will be taken as a one-time charge by EMCORE related to the write-off of in-process research and development costs. The proposed transaction is expected to be accretive within the first twelve months. Upon the completion of the transaction, MODE is expected to operate as a separate subsidiary of EMCORE. Its operations will continue to be led by the current MODE management team, headed by Thomas M. Brennan and Robert P. Bryan, who will report to Mr. Richards.

Dr. Thomas J. Russell, Chairman of the Board of EMCORE, stated that, "The acquisition of MODE represents a pivotal step in the Company's strategic growth plan. In addition to having complementary technologies and a shared vision of compound semiconductor materials and devices, EMCORE and MODE are technology driven companies focused on the rapidly growing markets for high speed compound semiconductors. By combining our technologies with those of MODE, EMCORE will be better able to offer complete vertically integrated VCSEL solutions by offering material, component and sub-assembly solutions to our customers."

Dr. Robert Bryan, Co-President and Co-Founder of MODE, stated, "The combination of MODE's VCSEL expertise and EMCORE's technological leadership in compound semiconductor solutions will provide significant new growth opportunities for the combined entity. We are all very pleased to become a permanent part of the EMCORE team, and to build further upon the strong relationship we have enjoyed over the past few years."

Tom Brennan, Co-President and Co-Founder of MODE, added, "We look forward to strengthening our current customer relationships and achieving technological breakthroughs in new and related market applications through this merger."

MODE is located in Albuquerque, New Mexico, near Sandia National Laboratories and the University of New Mexico, where the founders, and many of the current MODE staff, co-developed VCSEL technology. MODE's principal scientists are uniquely accomplished in their respective fields and are a formidable addition to EMCORE's existing materials science expertise. In addition to its leadership in VCSEL development, MODE holds an exclusive license from Sandia National Laboratories for VCSEL applications in data communications and bar code scanning and has mechanisms in place to continue to generate and acquire forward-looking intellectual property.

This release 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 the Company's filings with the Securities and Exchange Commission, including the registration statement on Form S-1 filed on March 4, 1997.

EMCORE Corporation (Nasdaq: EMKR - news) is a leading provider of integrated compound semiconductor solutions. Leading manufacturers throughout the world use EMCORE's production systems, epitaxial materials, package ready die, and process technology to produce compound semiconductor devices for a variety of advanced electronic and photonic applications. For further information on EMCORE, visit: <http://www.emcore.com>

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