| | To the Directo |
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| V | 1. Name of co |
| 0 | Phasebridge, Inc |
| 1 | |

Form PTO-1594 (Rev. 07/05)

OMB Collection 0651-0027 (exp. 6/30/2008)

12-27-2005

EPARTMENT OF COMMERCE s Patent and Trademark Office

RECORD

| TRAULIII. | 103144758 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| To the Director of the U. S. Patent and Trademark Office: Please | se record the attached documents or the new address(es) below. |
| Name of conveying party(ies): Phasebridge, Inc. | 2. Name and address of receiving party(ies) Additional names, addresses, or citizenship attached? ✓ No |
| ☐ Individual(s) ☐ Association ☐ General Partnership ☐ Limited Partnership ✔ Corporation- State: | Name: EMCORE Corporation Internal Address: Street Address: 145 Belmont Drive City: Somerset State: NJ Country: Zip: 08873 |
| 4. Application number(s) or registration number(s) and A. Trademark Application No.(s) C. Identification or Description of Trademark(s) (and Filing PHASEBRIDGE | B. Trademark Registration No.(s) 2,843,770 Additional sheet(s) attached? Yes V No |
| 5. Name & address of party to whom correspondence concerning document should be mailed: Name: Emcore Corporation | 6. Total number of applications and registrations involved: |
| Internal Address: | 7. Total fee (37 CFR 2.6(b)(6) & 3.41) \$40 |
| Street Address: 1600 Eubank Blvd SE | ☐ Authorized to be charged by credit card ☑ Authorized to be charged to deposit account ☐ Enclosed |
| City: Albuquerque State: New Mexico Zip: 87123 | 8. Payment Information: a. Credit Card Last 4 Numbers Expiration Date |
| Phone Number: <u>505 332 5000</u> Fax Number: <u>505 332 5038</u> Email Address: | b. Deposit Account Number 50-3029 Authorized User Name Daniel McGlym |
| 9. Signature: Signature | Total number of pages including cover sheet, attachments, and document: |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Reportation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

2843770 00000120 503029 12/23/2005 ECOOPER 40.00 DA DL FC: 8521

INTELLECTUAL PROPERTY ASSIGNMENT

THIS INTELLECTUAL PROPERTY ASSIGNMENT (this "Assignment") is entered into as of November 8, 2005 (the "Effective Date") by and between Phasebridge, Inc., a Delaware corporation ("Assignor"), and EMCORE Corporation, a New Jersey corporation ('Assignee"). This Assignment is being entered into pursuant to that certain Asset Purchase Agreement dated as of the Effective Date by and between Assignor and Assignee (the "APA").

FOR GOOD AND VALUABLE CONSIDERATION as recited in the APA, the receipt and sufficiency of which are hereby acknowledged, effective as of the Effective Date, Assignor hereby sells, transfers, assigns, conveys and delivers to Assignee all of Assignor's right, title and interest in and to:

- (i) the patents and patent applications listed on <u>Schedule A</u> attached hereto (which is incorporated into and made a part of this Assignment) (including without limitation, any continuations, divisions, continuations-in-part, reissues, reexaminations, extensions, or foreign equivalents thereof), together with all rights to sue and recover for any past, present or future infringement, damage or injury (and including the right to take over and continue any and all existing suits) to any of the foregoing and collect profits or damages with respect to same, the same to be held and enjoyed hereinafter by Assignee for its own use and for the use of its successors and assigns; and
- the registered trademarks and applications to register trademarks listed on Schedule B attached hereto (which is incorporated into and made a part of this Assignment), together with all of the goodwill associated with such trademarks and all rights to sue and recover for any past, present or future infringement, dilution, damage or injury (and including the right to take over and continue any and all existing suits) to any of the foregoing and collect profits or damages with respect to same, the same to be held and enjoyed hereinafter by Assignee for its own use and for the use of its successors and assigns.

In the event of any conflict or inconsistency between the terms of this Assignment and the terms of the APA, the terms of the APA will prevail. Nothing contained herein shall be deemed to alter, modify, expand or diminish the terms of the APA.

* * * * *

IN WITNESS WHEREOF, the undersigned parties have caused this Assignment to be executed as of the Effective Date.

| | | PHASEBRIDGE, INC. |
|----------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| | | By: Name: Dana Waldman Title: Chief Executive Officer |
| | | By: Name: Ian T. Graham Title: VP & Deputy General Counsel |
| ASSIGNOR NOTARIZATION: | | |
| STATE OF CALIFORNIA |) | |
| COUNTY OF LOS ANGELES |) SS.) | |
| On this 8 th day of Nove personally known to me, who ack his/her voluntary act and deed on be | mowledged t | there appeared before me Dana Waldman , that he/she signed the foregoing Assignment as h full authority of Assignor. |
| WITNESS my hand and off | icial seal. | |
| Signature | (Seal) | My commission expires |
| ASSIGNEE NOTARIZATION: | | |
| STATE OF NEW JERSEY |)) SS. | |
| COUNTY OF SOMERSET |) | |
| • | nowledged t | there appeared before me Ian T. Graham, that he/she signed the foregoing Assignment as h full authority of Assignee. |
| WITNESS my hand and off Signature Llu Len | icial seal. | My commission expires 5/1/2007 |
| | | SILVIA GENTILE |

NOTARY PUBLIC OF NEW JERSEY
My Commission Expires May 1, 2007

IN WITNESS WHEREOF, the undersigned parties have caused this Assignment to be executed as of the Effective Date.

| | PH | IASEBRIDGE, INC. |
|----------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------|
| | Ву | : Name: Dana Waldman Title: Chief Executive Officer |
| | EN | ACORE CORPORATION |
| | Ву | Name: Ian T. Graham Title: VP & Deputy General Counsel |
| ASSIGNOR NOTARIZATION: | | |
| STATE OF CALIFORNIA |) | |
| COUNTY OF LOS ANGELES |) SS.) | |
| | nowledged tha | here appeared before me Dana Waldman , at he/she signed the foregoing Assignment as full authority of Assignor. |
| WITNESS my hand and offic | cial seal. S | EE ATTACHED CERTIFICATE |
| Signature | (Seal) | My commission expires |
| ASSIGNEE NOTARIZATION: | | |
| STATE OF NEW JERSEY |)) SS. | |
| COUNTY OF SOMERSET |) | |
| On this 8th day of Novembersonally known to me, who ack his/her voluntary act and deed on be | nowledged that | there appeared before me Ian T. Graham, at he/she signed the foregoing Assignment as full authority of Assignee. |
| WITNESS my hand and offi | icial seal. | |
| Signature | (Seal) | My commission expires |

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

| State of California |) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| County of Los Angeles | ss. |
| County of | J |
| On Nov 9, 2005, before me, S | Name and Title of Officer (e.g., "Janie Doe, Notary Public") |
| personally appeared Dans R. W | Aldman Name(s) of Signer(s) |
| | personally known to me |
| | proved to me on the basis of satisfactor evidence |
| STEVEN M. NAVARRO COMM. #1521318 NOTARY PUBLIC - CALIFORNIA LOS ANGELES COUNTY My Comm. Expires Oct. 23, 2008 | to be the person(a) whose name(s) is/susubscribed to the within instrument an acknowledged to me that he/she/they execute the same in his/Mer/their authorize capacity(tos), and that by his/live/the signature(s) on the instrument the person(s), of the entity upon behalf of which the person(s) acted, executed the instrument. WITHESS my hand and official seal. |
| Place Notary Seal Above | Signature of votative arrange |
| | PTIONAL |
| | aw, it may prove valuable to persons relying on the document and reattachment of this form to another document. |
| Description of Attached Document | |
| Title or Type of Document: | |
| The state of the s | |
| Document Date: | Number of Pages: |
| Signer(s) Other Than Named Above: | |
| Signer(s) Other Than Named Above. | |
| Capacity(ies) Claimed by Signer | |
| Signer's Name: | RIGHT THUMBPRIN OF SIGNER |
| ☐ Individual | Top of thumb here |
| ☐ Corporate Officer — Title(s): | |
| □ Partner — □ Limited □ General | |
| ☐ Attorney in Fact | |
| ☐ Trustee | · · · · · · · · · · · · · · · · · · · |
| | |
| ☐ Guardian or Conservator | |
| | |
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| Guardian or Conservator Other: Signer is Representing: | , and the second |
| | , and the second |

SCHEDULE A

| | PATENTS | | | |
|---------|---------------|------------|------------------------------------------------|--|
| Country | Patent Number | Issue Date | Title | |
| U.S. | 6590691 | 7/8/2003 | Hybridly Integrated Optical Modulation Devices | |

| PATENT APPLICATIONS | | | |
|-------------------------------------------------------------------------------|----------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Country | App. Number | Date Patent App. Filed | Title |
| USA | 10/150,183 | 5/17/2002 | PB-1; Sub-Micron Adjustable Mount For Support A Component And Method |
| PCT-member countries, including USPTO as Intl Search Authority | PCT/US03/05119 | 1/31/2003 | PB-1PCT; Sub-Micron Adjustable Mount For Supporting A Component and Method |
| USA | 10/394,326 | 3/20/2003 | PB-1CIP; Sub-Micron Adjustable Mount For Support A Component And Method |
| USA | 10/859,871 | 6/2/2004 | PB-1CIP2; Sub-Micron Adjustable Mount For Support A Component And Method |
| PCT-member countries, including USPTO as Intl Search Authority | PCT/US02/20714 | 7/1/2002 | PB-2PCT; Modified Optical Modulation System |
| | | Not Filed | PB-3; Coupled Coplanar Waveguide Dual- Drive Optical Modulator |
| | | Not Filed | PB-y; High Efficient Bias Electrode Designs for X-cut and Z-cut Lithium- Niobate Mach-Zehnder Interferometer (MZI) Modulators |
| USA | 11/121,350 | 5/3/2005 | PB-4; Compact Submillimeter-Wave Sources and Detectors for Spectroscopic Applications |

A - 1

SCHEDULE B

| TRADEMARK REGISTRATIONS | | | |
|-------------------------|-------------|-----------|---------------|
| Country | Reg. Number | Reg. Date | Mark |
| U.S. | 2,843,770 | 5/18/2004 | "Phasebridge" |

| | TRAI | DEMARK APP | LICATIONS |
|---------|-------------|------------|-----------|
| Country | App. Number | App. Date | Mark |
| | | | None |