

**PATENT ASSIGNMENT**

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| SUBMISSION TYPE:   | NEW ASSIGNMENT                           |
| NATURE OF CONVEYANCE:  | ASSIGNMENT                               |
| <b>CONVEYING PARTY DATA</b>  |  |
| <b>Name</b>  | <b>Execution Date</b>                    |
| Hsiang-Lan LUNG  | 07/07/2010                               |
| Ming-Hsiu LEE  | 07/12/2010                               |
| Yen-Hao SHIH   | 07/07/2010                               |
| Tien-Yen WANG  | 07/22/2010                               |
| Chao-I WU  | 07/23/2010                               |
| <b>RECEIVING PARTY DATA</b>  |  |
| <b>Name:</b>   | Macronix International Co., Ltd.         |
| <b>Street Address:</b>   | No. 16 Li-Hsin Road                      |
| <b>Internal Address:</b>   | Science-Based Industrial Park            |
| <b>City:</b>   | Hsinchu                                  |
| <b>State/Country:</b>  | TAIWAN                                   |
| <b>PROPERTY NUMBERS Total: 1</b>   |  |
| <b>Property Type</b>   | <b>Number</b>                            |
| <b>Application Number:</b>   | 12823508                                 |
| <b>CORRESPONDENCE DATA</b>   |  |
| <b>Fax Number:</b>   | (650)712-0263                            |
| <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> |  |
| <b>Phone:</b>  | 650-712-0340                             |
| <b>Email:</b>  | kmarley@hmbay.com                        |
| <b>Correspondent Name:</b>   | MACRONIX C/O HAYNES BEFFEL & WOLFELD LLP |
| <b>Address Line 1:</b>   | P. O. BOX 366                            |
| <b>Address Line 2:</b>   | Mark A. Haynes                           |
| <b>Address Line 4:</b>   | HALF MOON BAY, CALIFORNIA 94019          |
| <b>ATTORNEY DOCKET NUMBER:</b>   | MXIC 1940-1                              |
| <b>NAME OF SUBMITTER:</b>  | Mark A. Haynes                           |

OP \$40.00 12823508

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**PATENT  
 REEL: 024740 FRAME: 0440**

Total Attachments: 5

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Application No. 12/823,508

Docket No. MXIC 1940-1  
(P990037US PCM-0402)**ASSIGNMENT**

WHEREAS, the undersigned,

- |  |  |
|--|--|
| (1) Hsiang-Lan Lung 龍翔瀾<br>1401 Hunters Run<br>Dobbs Ferry, NY 10522           | (2) Ming Hsiu Lee 李明修<br>17F.-2, No. 82, Dasyue Road<br>Hsinchu 300 TW                   |
| (3) Yen-Hao Shih 施彥豪<br>24 Town Green Drive<br>Elmsford, NY 10523              | (4) Tien-Yen Wang 王典彥<br>No. 13, Ln. 103, Jioucyuan St.<br>Datong Dist.<br>Taipei 103 TW |
| (5) Chao-I Wu 吳昭誼<br>No. 6, Lane 189<br>Wenzhong Rd., Zhubei<br>Hsinchu 302 TW |  |

hereinafter termed "Inventors", have invented certain new and useful improvements in

**PHASE CHANGE MEMORY CODING**

and have filed a non-provisional Application for a United States patent disclosing and identifying the above invention on 25 June 2010 as Application No. 12/823,508, and have executed an oath or declaration of inventorship for such non-provisional application on:

- (1) the \_\_\_\_\_ day of \_\_\_\_\_, 2010;
- (2) the \_\_\_\_\_ day of \_\_\_\_\_, 2010;
- (3) the \_\_\_\_\_ day of \_\_\_\_\_, 2010;
- (4) the \_\_\_\_\_ day of \_\_\_\_\_, 2010;
- (5) the \_\_\_\_\_ day of \_\_\_\_\_, 2010;

(hereinafter termed "application"); and

Application No. 12/823,508

Docket No. MXIC 1940-1  
(P990037US PCM-0402)

WHEREAS, Macronix International Co., Ltd., a corporation of Taiwan, having a place of business at No. 16, Li-Hsin Road, Science-Based Industrial Park, Hsinchu, Taiwan (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventors jointly or severally (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby jointly and severally sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, jointly and severally, the inventors' respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that said inventors have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

Application No. 12/823,508

Docket No. MXIC 1940-1  
(P990037US PCM-0402)

5. Said Inventors hereby authorize any of the following attorneys:

Mark A. Haynes, Ernest J. Beffel, Jr., Warren S. Wolfeld, James F. Hann, Bill Kennedy, Kenta Suzue, to (a) insert the date of execution of the oath or declaration of inventorship, and (b) insert the application number and filing date of this application when known.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the date written below.

*Hsiang-Lan Lung*  
HSIANG-LAN LUNG 龍翔瀾

Date: 7-7-10

*Ming Hsiu Lee*  
MING HSIU LEE 李明修

Date: 7-12-2010

*Yen-Hao Shih*  
YEN-HAO SHIH 施彥豪

Date: July 7, 2010

\_\_\_\_\_  
TIEN-YEN WANG 王典彥

Date: \_\_\_\_\_

\_\_\_\_\_  
CHAO-I WU 吳昭誼

Date: \_\_\_\_\_

Application No. 12/823,508

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\_\_\_\_\_  
HSIANG-LAN LUNG 龍翔瀾


Date: \_\_\_\_\_

\_\_\_\_\_  
MING HSIU LEE 李明修

Date: \_\_\_\_\_

\_\_\_\_\_  
YEN-HAO SHIH 施彥豪

Date: \_\_\_\_\_

  
\_\_\_\_\_  
TIEN-YEN WANG 王典彥

Date: 22 July 2010

\_\_\_\_\_  
CHAO-I WU 吳昭諳

Date: \_\_\_\_\_

Application No. 12/823,508

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\_\_\_\_\_  
HSLANG-LAN LUNG 龍翔瀾

Date: \_\_\_\_\_

\_\_\_\_\_  
MING HSIU LEE 李明修

Date: \_\_\_\_\_

\_\_\_\_\_  
YEN-HAO SHIH 施彥豪

Date: \_\_\_\_\_

\_\_\_\_\_  
TIEN-YEN WANG 王典彥

Date: \_\_\_\_\_

CHAO-I WU 吳昭誼  
CHAO-I WU 吳昭誼

Date: 7/23/2010