PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Chun-Hsiung Hung | 06/14/2012 |
| Kuen-Long Chang | 06/25/2012 |
| Ken-Hui Chen | 06/22/2012 |
| Nai-Ping Kuo | 06/21/2012 |
| Chin-Hung Chang | 06/13/2012 |
| Chang-Ting Chen | 06/13/2012 |

RECEIVING PARTY DATA

| Name: | Macronix International Co., Ltd. | |
|-------------------|----------------------------------|--|
| Street Address: | No. 16, Li-Hsin Road | |
| Internal Address: | Science-Based Industrial Park | |
| City: | Hsinchu | |
| State/Country: | TAIWAN | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13536555 |

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Kenta Suzue

Address Line 1: Haynes Beffel & Wolfeld LLP

Address Line 2: PO Box 366

Address Line 4: Half Moon Bay, CALIFORNIA 94019

ATTORNEY DOCKET NUMBER: MXIC 2017-2

REEL: 028878 FRAME: 0354

PATENT

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| NAME OF SUBMITTER: | Kenta Suzue |
|--|-------------|
| Total Attachments: 3 source=00338700#page1.tif source=00338700#page2.tif source=00338700#page3.tif | |

PATENT REEL: 028878 FRAME: 0355

Attorney Docket No.: MXIC 2017-2

(P1010040US)

ASSIGNMENT

WHEREAS, the undersigned,

- Chun Hsiung Hung
 9F-2, No. 86, University Road
 East District
 Hsinchu 300 Taiwan R.O.C.
- (2) Kuen-Long Chang 4F, No. 21, Alley 23, Lane 109 Pao-Yi Road, Wenshan District Taipei 116 Taiwan R.O.C.
- (3) Ken-Hui Chen 6F, No. 6, Alley 9, Lane 298 Guangfu Road, East District Hsinchu 300, Taiwan R.O.C.
- (4) Nai-Ping Kuo
 No.16, Li-Hsin Rd., Science Park
 Hsinchu 300
 Taiwan R.O.C.
- (5) Chin-Hung Chang
 No. 10, Alley 12, Lane 313
 Uen-Shian Road,
 Tainan 300, Taiwan R.O.C.
- (6) Chang-Ting Chen 7F-4, No. 8, Lane 175 Wuling Road, North District, Hsinchu 300, Taiwan R.O.C.

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

METHOD AND APPARATUS FOR SHORTENED ERASE OPERATION

and are filing a non-provisional application for a United States patent disclosing and identifying the above invention on <u>28 July 202</u> as Application No. <u>13 536,555</u>, OR are filing such an application herewith, and have executed an oath or declaration of inventorship for such non-provisional application on:

| (1) the 14th day of June, | 2012; |
|----------------------------------|-------|
| (2) the | 2012; |
| (3) the 2 rolday of Jone, | 2012. |
| (4) the $21S^+$ day of $31S^+$, | 2012; |
| .1.4 | 2012; |
| 00144 | 2012. |

(hereinafter termed "application"); and

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

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2017-2

Attorney Docket No.: MXIC 2005-1

(P1000114US)

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 Inventors 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 inventor's respective heirs, legal representatives and assigns.
- 4. Said Inventors hereby jointly and severally warrant and represent that said inventor has not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

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Attorney Docket No.: MXIC 2005-1

(P1000114US)

5. Said Inventors hereby authorize any of the following attorneys and agents: Mark A. Haynes, Ernest J. Beffel, Jr., Warren S. Wolfeld, James F. Hann, Kenta Suzue, Ryan Davis and Yiding Wu 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.

| Chun Hsiving Hong | Date: >0/2/6/14 |
|----------------------|-------------------|
| Chun Hsiung Hung 洪俊雄 | |
| Kuen-Long, Chang | Date: |
| Kuen-Long Chang 張坤龍 | , |
| Ken-Hui Chen | Date: 5012/6/22 |
| Ken-Hui Chen 陳耕暉 | |
| Nai-Ping Kne | Date: 2012, 6, 2/ |
| Nai-Ping Kuo 郭乃萍 | |
| Chin-Hung Chang 張欽鴻 | Date: 20/2.6.13 |
| Chin-Hung Chang 張欽鴻 | |
| Many-Viz Min | Date: 2012.6.13. |
| Chang-Ting Chen 陳張庭 | · . |