PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hsiang-Lan LUNG	03/24/2010
Hang-Ting LUE	04/29/2010
Yen-Hao SHIH	04/29/2010
Erh-Kun LAI	05/17/2010
Ming-Hsiu LEE	05/17/2010
Tien-Yen WANG	05/17/2010

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:	12785291

CORRESPONDENCE DATA

Fax Number: (650)712-0263

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 650-712-0340 Email: kmarley@hmbay.com

Correspondent Name: MACRONIX C/O HAYNES BEFFEL & WOLFELD LLP

Address Line 1: P. O. BOX 366
Address Line 2: Mark Haynes

Address Line 4: HALF MOON BAY, CALIFORNIA 94019

ATTORNEY DOCKET NUMBER: MXIC 1914-1

PATENT REEL: 024426 FRAME: 0047 DP \$40.00 12785291

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NAME OF SUBMITTER:	Mark A. Haynes
Total Attachments: 6 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif	

ASSIGNMENT

WHEREAS, the undersigned,

- (1) Hsiang-Lan Lung 龍翔瀾 (2) Hang-Ting LUE 呂函庭
 1401 Hunters Run
 Dobbs Ferry, NY 10522 East Yuan 19
 Nat'l Tsing-Hua University
 Hsinchu 300 TW
- (3) Yen-Hao Shih 施彥豪 (4) Erh-Kun Lai 賴二琨 24 Town Green Drive Elmsford, NY 10523 Elmsford, NY 10523
- (5) Ming Hsiu Lee 李明修 17F.-2, No. 82, Dasyue Road Hsinchu 300 TW
- (6) Tien-Yen Wang 王典唐 1F., No. 18, Alley 37 Lane 197, Yongfu St. Sanchong Taipei 241 TW

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

3D TWO-BIT-PER-CELL NAND FLASH MEMORY

such an a	e invention on	ith, and have executed	a United States patent discleration No. I an oath or declaration of in	OD are filing
	(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;	
	(6) the	day of	, 2010;	

(hereinafter termed "applications"); and

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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 applications 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 applications 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.
- Said Inventors hereby jointly and severally covenant and agree to cooperate with 2. 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.

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To: Mark

MXIC 1914-1 (P980050US)

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, 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 龍翔瀾	Date: $3-24-20/0$
HSIANG-LAN LUNG 龍翔瀾	
	Date:
HANG-TING LUE 呂函庭	
	Date:
YEN-HAO SHIH 施彥豪	
	Date:
ERH-KUN LAI 賴二琨	
	Date:
MING HSIU LEE 李明修	
	Date:
TIEN-YEN WANG 王典彥	

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	Date:
HSIANG-LAN LUNG 龍翔瀾	
HANG-TING LUE B函庭	Date: April 29. 2010
グードル Shih YEN-HAO SHIH 施彦豪	Date: 18pril 28. 2010
THE STATE OF	
ERH-KUN LAL 賴二琨	
MING HSIU LEE 李明修	
	Date;
TIEN-YEN WANG 王典彦	

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Page 3 of 3

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	Date:
HANG-TING LUE 呂函庭	
	Date:
YEN-HAO SHIH 施彥豪	
Frh-Km (a. Fle	Date: May, 17. 2013
ERH-KUN LAI 賴二琨	
my plan com	Date: May 17 2010
MING HSIU LEE 李明修	
	Data
TIEN-YEN WANG 王典彦	Date:

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HANG-TING LUE 呂函庭	Date:
	Date:
YEN-HAO SHIH 施彥豪	The state of the s
	Date:
ERH-KUN LAI 賴二琨	
MING HSIU LEE 李明修	Date:
TIEN-YENWANG EME	Date: 57/7/>>0(0

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RECORDED: 05/21/2010

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