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	12/11/2008
Erh-Kun Lai	12/11/2008
Bipin Rajendran	02/25/2009
Chung Hon Lam	02/25/2009

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

Name:	International Business Machines Corporation
Street Address:	New Orchard Road
City:	Armonk
State/Country:	NEW YORK
Postal Code:	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12353219

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: mholland@hmbay.com

Correspondent Name: Mark Haynes Address Line 1: P.O. Box 366

PATENT REEL: 022312 FRAME: 0111

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Address Line 2: Haynes Beffel & Wolfeld LLP
Address Line 4: Half Moon Bay, CALIFORNIA 94019

ATTORNEY DOCKET NUMBER: MXIC 1852-1

NAME OF SUBMITTER: Mark A. Haynes

Total Attachments: 4
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PATENT REEL: 022312 FRAME: 0112 MXIC 1852-1 (P970015US PCM-0331 and P960220US PCM-0323)

ASSIGNMENT

WHEREAS, the undersigned,

- (1) Hsiang-Lan Lung 龍翔瀾 1401 Hunters Run Dobbs Ferry, NY 10522
- (2) Erh-Kun Lai 賴二琨 48 Town Green Drive Elmsford, NY 10523

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

POLYSILICON PLUG BIPOLAR TRANSISTOR FOR PHASE CHANGE MEMORY

and have filed a non-provisional application for a United States patent disclosing and identifying the above invention on 01/13/2009 as Application No. 12/353,219 OR are filing such an application herewith, and have executed an oath or declaration of inventorship for such non-provisional application on:

(1) the <u>ii</u> day of <u>December</u>, 2008; (2) the <u>lith</u> day of <u>December</u>, 2008;

(hereinafter termed "applications"); 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 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-inpart of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

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- 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.

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

It's do dy	Date: 12-11-03	
HSIANG-LAN LUNG 龍翔瀾		
Erh-kun Lai	Date: Dec - 11 - 2 330	<i>p</i>
ERH-KUN LAI 賴二琨		

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ASSIGNMENT

WHEREAS.

Bipin Rajendran, residing at Westchester County New York. Chung H. Lam residing at Westchester County, New York;

(herein called "THE UNDERSIGNED") has made an invention and has filed an application for Letters Patent of the United States, on 13 January 2009 as U.S. Application No. 12/353,219, said application entitled POLYSILICON PLUG BIPOLAR TRANSISTOR FOR PHASE CHANGE MEMORY and being further identified by Attorney Docket No. MXIC 1852-1;

AND WHEREAS International Business Machines Corporation (herein called "ASSIGNEE"), a corporation organized under the laws of New York, and having an office and place of business at Armonk, New York 10504 wishes to acquire the entire right, title and interest in and to said invention and patent application and any United States and foreign patents to be obtained therefor;

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, THE UNDERSIGNED hereby sells, assigns and transfers to the ASSIGNEE, its successors and assigns, the entire right, title and interest to the invention disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent, both foreign and domestic, which may be granted therefrom, and all reissues or extensions of such patents, and THE UNDERSIGNED hereby authorizes and requests the Commissioner of Patents to issue any and all Letters Patent for the aforesaid invention to the ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED hereby agrees that THE UNDERSIGNED, his executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said ASSIGNEE its successors and assigns, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIG below.	NED has hereunto set his hand on the date ind	icated
Magilla .	02/25/09	
Bipin-Rajiendran	Date /	
Chung Hon Lam	Date	

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1 of 1

ASSIGNMENT

WHEREAS,

Bipin Rajendran, residing at Westchester County New York. Chung H. Lam residing at Westchester County, New York;

(herein called "THE UNDERSIGNED") has made an invention and has filed an application for Letters Patent of the United States, on 13 January 2009 as U.S. Application No. 12/353,219, said application entitled POLYSILICON PLUG BIPOLAR TRANSISTOR FOR PHASE CHANGE MEMORY and being further identified by Attorney Docket No. MXIC 1852-1;

AND WHEREAS International Business Machines Corporation (herein called "ASSIGNEE"), a corporation organized under the laws of New York, and having an office and place of business at Armonk, New York 10504 wishes to acquire the entire right, title and interest in and to said invention and patent application and any United States and foreign patents to be obtained therefor.

NOW, THEREFORE, for and in consideration of good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, THE UNDERSIGNED hereby sells, assigns and transfers to the ASSIGNEE, its successors and assigns, the entire right, title and interest to the invention disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent, both foreign and domestic, which may be granted therefrom, and all reissues or extensions of such patents, and THE UNDERSIGNED hereby authorizes and requests the Commissioner of Patents to issue any and all Letters Patent for the aforesaid invention to the ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED hereby agrees that THE UNDERSIGNED, his executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Leiters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said ASSIGNEE its successors and assigns, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set his hand on the date indicated below.

Bipin Rajendran Date

Chung Hon Lam

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RECORDED: 02/25/2009

PATENT REEL: 022312 FRAME: 0116