#### 502047563 09/04/2012

#### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

#### **CONVEYING PARTY DATA**

| Name          | Execution Date |
|---------------|----------------|
| Kyung Sik MUN | 08/29/2012     |

## **RECEIVING PARTY DATA**

| Name:           | SK HYNIX INC.                                 |
|-----------------|-----------------------------------------------|
| Street Address: | 2091, Gyeongchung-daero, Bubal-eub, Icheon-si |
| City:           | Gyeonggi-do                                   |
| State/Country:  | KOREA, REPUBLIC OF                            |

## PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 13603187 |

## **CORRESPONDENCE DATA**

 Fax Number:
 5713275452

 Phone:
 571-327-5450

 Email:
 ipntlaw@ipntlaw.com

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

via US Mail.

Correspondent Name: IP & T GROUP LLP
Address Line 1: 8230 Leesburg Pike

Address Line 2: Suite 650

Address Line 4: Vienna, VIRGINIA 22182

ATTORNEY DOCKET NUMBER: PO120442HD

NAME OF SUBMITTER: Myung Soo Kim

Total Attachments: 1

source=Po120442HD-Assignment#page1.tif

OP \$40.00

PATENT REEL: 028895 FRAME: 0455

## ASSIGNMENT OF PATENT APPLICATION

WHEREAS I/We, the below named inventor(s) has made an invention entitled:

# SEMICONDUCTOR MEMORY DEVICE AND METHOD OF OPERATING THE SAME

| For which I/We executed an application for Letters Patent of the United States concurrently herewith; and/or For which I/We filed an application for Letters Patent of the United States on(Applica),                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | tion No.                           |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--|--|
| BE IT KNOWN that, for good and valuable consideration, the receipt of which is hereby acknowledged, I/Wo assignor(s), have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over un HYNIX INC., a corporation of the Republic of Korea, whose post office address is 2091. Gyeongchung-daes Bubal-enb. Icheon-si, Gyeonggi-do. REPUBLIC OF KOREA (hereinafter referred to us Assigned), its lawf successors and assigns my/our entire right, title, and interest in and to this application and the invention(s) and improvement(s) set forth therein; and any and all continuations, continuations-in-part, divisionals, and renews and substitutes for said application for said Letters Patent and any and all Letters Patent of the United States a countries foreign thereto, which may be granted thereon or therefore; and any reissues, reexaminations, or extensions of all such Letters Patent. | to <u>SK</u><br>ro,<br>ul<br>ds of |  |  |
| I/WE HEREBY authorize the Assignee, its lawful successors and assigns to apply for Letters Patent in all conforcing to the United States directly in its own name, and to claim priority of the filing date of any of the above mentioned applications for Letters Patent of the United States and of countries foreign thereto under the provious and all international conventions and treaties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 'e-                                |  |  |
| I/WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States and of any country or countries foreign to the United States whose duty it is to issue patents on applications as for to issue all Letters Patent for this invention to the Assignee, its successors and assigns, in accordance with the of this Assignment;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | resaid,<br>terms                   |  |  |
| AND, I/WE HEREBY covenant that I/We have the full right to convey the interest assigned by this Assignme I/We have not executed and will not execute any agreement in conflict with this Assignment;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | nt, and                            |  |  |
| AND, I/WE HEREBY further covenant and agree that I/We will, without further consideration, communicate said Assignee, its successors and assigns, any facts known to me/us respecting this invention and testify in any proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may necessary or desirable to perfect the title to this invention in said Assignee, its successors and assigns, execute divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible said Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and in countries foreign thereto, it being understood that any expense incident to the execution of papers shall be borne by the Assignee, its successors and assigns.                                                               | / legal<br>be<br>all<br>to aid     |  |  |
| AND, I/WE HEREBY authorize and request the attorneys of record to insert the serial number and filing date said application now identified by the attorney docket number and title set forth above as soon as the same shahave been known to them by the United States Patent and Trademark Office.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | of<br>II                           |  |  |
| IN TESTIMONY WHEREOF, I/We have hereunto set our hands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                    |  |  |
| Signature of first assignor:  Name of first assignor:  Address:  Kyung Sik MUN  103-607, Godam Domitory, Godam-dong, Icheon-si, Gyeonggi-do. Republikorea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |  |  |
| Page 1 of 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                    |  |  |

**RECORDED: 09/04/2012** 

845560/178.204.3.141/2012-08-29 15:36

**PATENT** REEL: 028895 FRAME: 0456