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|   | se record the attached documents or the new address(es) below.                            |  |  |
|---|---|--|--|
| 1. Name of conveying party(ies):  | 2. Name and address of receiving party(ies)   |  |  |
| Mun-Phil Park   | Name: Hynix Semiconductor Inc.  |  |  |
|   | Internal Address:   |  |  |
| Additional name(s) of conveying party(ies) attached? Yes X No                           | Street Address:   |  |  |
| 3. Nature of conveyance/Execution Date(s):  |   |  |  |
| Execution Date(s): December 15, 2006  | San 136-1, Ami-ri, Bubal-eub, Ichon-shi   |  |  |
| X Assignment Merger Change of Name  |   |  |  |
| Security Agreement Joint Research Agreement   | City: Gyeonggi-do   |  |  |
| Government Interest Assignment  | State:  |  |  |
| Executive Order 9424, Confirmatory License  | Country: Republic of Korea Zip: 467-860   |  |  |
| Other   | Additional name(s) & address(es) Yes X No attached?                                       |  |  |
| 4. Application or patent number(s):   | This document is being filed together with a new application.                             |  |  |
| A. Patent Application No.(s)  | B. Patent No.(s)  |  |  |
| This application  |   |  |  |
|   |   |  |  |
| Additional numbers attached   | d? Yes X No   |  |  |
| . Name and address to whom correspondence concerning document should be mailed:         | 6. Total number of applications and patents involved:                                     |  |  |
| Name: Jeffri A. Kaminski  |   |  |  |
| VENABLE LLP   | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00  Authorized to be charged by credit card    |  |  |
| Internal Address: Atty. Dkt.: 75183-239224  |   |  |  |
| Street Address: P.O. Box 34385  | X Authorized to be charged to deposit account   |  |  |
|   | Enclosed  |  |  |
|   | None required (government interest not affecting title)                                   |  |  |
| City: Washington  | 8. Payment Information  |  |  |
| DC = 20043 0008   | <del></del>   |  |  |
| Julie 20 10 0000  |   |  |  |
| (000) 244 4000  | Expiration Date   |  |  |
| Phone Number: (202) 344-4000  | Expiration Date b. Deposit Account Number 22-0261   |  |  |
| Phone Number: (202) 344-4000  | Expiration Date   |  |  |
| Phone Number: (202) 344-4000 Fax Number: (202) 344-8300                                 | b. Deposit Account Number 22-0261 Authorized User Name Jeffri A. Kaminski                 |  |  |
| Phone Number: (202) 344-4000  Fax Number: (202) 344-8300  Email Address: (202) 344-8300 | Expiration Date b. Deposit Account Number 22-0261   |  |  |
| Phone Number: (202) 344-4000  Fax Number: (202) 344-8300  Email Address:                | Expiration Date  b. Deposit Account Number 22-0261 Authorized User Name December 29, 2006 |  |  |

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## ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT by Mun Phil, PARK (hereinafter referred to as Assignor), residing at San 136-1, Ami-ri, Bubal-eub, Ichon-si, Gyeonggi-do 467-860, Republic of Korea;

WHEREAS, Assignor has invented certain new and useful improvements in SEMICONDUCTOR MEMORY APPARATUS, set forth in a Patent application for Letters Patent of the United States, filed herewith; and

WHEREAS, Hynix Semiconductor Inc., a organized under and pursuant to the laws of Republic of Korea having its principal place of business at San 136-1, Ami-ri, Bubaleub, Ichon-shi, Gyeonggi-do 467-860, Republic of Korea (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.

AND for the same consideration, Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to

PATENT REEL: 018760 FRAME: 0821 Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grants the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

VENABLE LLP

All practitioners at Customer Number 26694

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AND Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

|                                 |                     | Mu                    | Mun Phil, PARK<br>Assignor   |    |  |
|---------------------------------|---------------------|-----------------------|------------------------------|----|--|
|                                 |                     |                       |                              |    |  |
| Date: Dec                       | . 15, mob           |                       |                              |    |  |
| United States of Am             | nerica              | )                     |                              |    |  |
| State of                        |                     | ) ss.:                |                              |    |  |
| County of                       |                     |                       |                              |    |  |
| On this                         | day of              |                       | , before me                  |    |  |
| personally came                 |                     | , to                  | me known to be the individua | al |  |
| described in and whof the same. | o executed the fore | going instrument, and | acknowledged execution       |    |  |
|                                 |                     |                       |                              |    |  |
|                                 |                     | Notes Dul             |                              |    |  |

REEL: 018760 FRAME: 0824

**RECORDED: 12/29/2006**