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04-12-2000



U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

Docket No.: SEC.679

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| To the Honorable Commissioner of Pater. 101  | 318579 <u>tached original documents or copy thereof.</u>   |  |
| Name of conveying party(ies):     Byung-se SO     Jin-ho SO  | 2. Name and address of receiving party(ies):  Name: Samsung Electronics Co., Ltd.  |  |
| Jin-no 50  |  |  |
|  | Address: 416, Maetan-dong, Paldal-gu, Suwon-city   |  |
| Additional names(s) of conveying party(ies)  | 31,000   |  |
| 3. Nature of conveyance:   | **************************************   |  |
| ★ Assignment   |  |  |
| ☐ Security Agreement ☐ Change of Name  | City: Kyungki-do State/Prov.:  |  |
| ☐ Other  | Country: Republic of Korea ZIP:  |  |
| Execution Date: March 3, 20, 2000  | Additional name(s) & address(es) ☐ Yes ☒ No  |  |
| 4. Application number(s) or registration numbers(s):   |  |  |
| If this document is being filed together with a new applica-   | ation, the execution date of the application is: March 3, 20, 2000   |  |
| Patent Application No. Filing date   | B. Patent No.(s)   |  |
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|  |  |  |
| Additional num   | bers Yes X No  |  |
| 5. Name and address of party to whom correspondence concerning document should be mailed:  | 6. Total number of applications and patents involved:  |  |
| Name: BRIAN C. ALTMILLER   | 7. Total fee (37 CFR 3.41):\$ 40.00  |  |
| Registration No. 37,271  |  |  |
| Address: JONES VOLENTINE, L.L.P.   | credited or debited to deposit account   |  |
| 12200 SUNRISE VALLEY DRIVE   | ☐ Authorized to be charged to deposit account  |  |
| SUITE 150  |  |  |
| City: RESTON State/Prov.: VA   | 8. Deposit account number:   |  |
| Country: U.S.A. ZIP: 20191   | 50-0238 <b>\$ \$</b>   |  |
| DO   | NOT USE THIS SPACE   |  |
|  | NOT USE THIS STACE NOT NOT USE THIS STACE NOT USE THE STACE NO |  |
| <ol> <li>Statement and signature.</li> <li>To the best of my knowledge and belief, the foregoing in<br/>of the original document.</li> </ol> | formation is true and corect and any attached copy is a true copy  |  |
| BRIAN C. ALTMILLER   | Muy Com MARCH 31, 2000   |  |
| Name of Person Signing   | Signature S Date   |  |
| Total number of pages incl   | uding cover sheet, attachment  |  |

PATENT

REEL: 010677 FRAME: 0081

J O N E S VOLENTINE L.L.P. (4/99)

## **ASSIGNMENT**

| Insert Name(s)<br>of Inventor(s)            | In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned  Byung-se SO and Jin-ho SO  and   |
|---|--|
| Insert Name(s)<br>of Assignee(s)<br>Address | the undersigned hereby sell(s) and assign(s) to  Samsung Electronics Co., Ltd.  of 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea  (hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as   |
| Title of<br>Invention                       | SEMICONDUCTOR MEMORY DEVICE INCLUDING PROGRAMMABLE OUTPUT PIN DETERMINING UNIT AND METHOD OF READING THE SAME DURING TEST MODE   |
| Date of Signing of Application              | for which an application for patent in the United States of America has been executed by the undersigned on March 3, 30, 300, 3000.  The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.  The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.  The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.  The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.  The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that |

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| be necessary or desirable in or                                    | der to comply with the   | rules of the United States Patent Office for recordation of this document  |
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|  |  | rsigned on the date(s) opposite the undersigned name(s).   |
| Date May 20, 2020  | , Name of Inventor   | Byungse Sc   |
| Date <u>May.</u> 3. 2000   | , Name of Inventor   | Byung-se SO  Jin-ho SO  Jin-ho SO  |
| Date   | , Name of Inventor   | Jin-ho SO  |
|  |  |  |
|  |  |  |
| but not required. If n at least two witnesses record an Assignment | ot acknowledged, then<br>who sign here. How<br>even if it has not beer | wledgment: Acknowledgment before a United States Consul is preferred it is recommended that the execution by the Inventor(s) be witnessed between the current practice of the U.S. Patent and Trademark Office is to acknowledged and/or witnessed.) |
| Witness  |  |  |
|  | ACK  | NOWLEDGMENT  |
|  |  | , 19, before me personally came the above  |
| to me personally known as the executed the same of his (their      |  | cuted the foregoing assignment, who did acknowledge to me that he (they purposes therein set forth.  |
|  |  | Official Signature   |
| SEAL   |  |  |
|  |  | Official Title   |
| * * * * * * * * * * * * * * *                                      | *****  | *************  |
| Applicant Reference No.: <u>SS</u>                                 | -13856-US  | Atty Docket No.: SEC.679   |
| Serial No.:  |  | Filing Date:   |
|  |  | ч.   |
|  |  | Page <b>2</b> of 2   |

RECORDED: 03/31/2000

The undersigned hereby grant(s) to Raymond C. Jones, Reg. No. 34,631 and Adam C. Volentine, Reg. No. 33,289,

members of the firm of JONES VOLENTINE, L.L.P. the power to insert on this assignment any further identification which may

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