03-18-2008

Patents Only

U.S. PTO 12/074992 03/07/2008

ASSIGNMENT RECORD

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To: Commissioner for Patents. Date: March 7, 2008 Attorney Docket No. 5649-2386 Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): [1.] Sang-Yong Park Samsung Electronics Co., Ltd. [2.] Sung-Hyun Kwon 416 Maetan-dong, Yeongtong-gu [3.] Jae-Hwang Sim Suwon-si, Gyeonggi-do [4.] Keon-Soo Kim Republic of Korea [5] Jae-Kwan Park Additional name(s) of conveying party(ies) attached? 3. Nature of conveyance: Additional name(s) & address(es) attached? _____ Yes X_ No X Assignment Merger Security Agreement Change of Name Other Execution Date: [1.]3/3/08 [2.] 3/3/08 [3.] 2/26/08 [4.] 3/3/08 [5.] 3/3/08 4. Application Serial No. If this document is being filed together with a new application, the execution date of the application is: [1.]3/3/08 [2.] 3/3/08 [3.] 2/26/08 [4.] 02/26/08 [5.] 3/3/08 Additional numbers attached? Yes X No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: 7. Total fee (37 CFR 3.41) \$40.00 X Enclosed Robert W. Glatz ___ Authorized to be charged to deposit account Myers Bigel Sibley & Sajovec P. O. Box 37428 8. Deposit account number: 50-0220 Raleigh NC 27627 DO NOT USE THIS SPACE 9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Robert W. Glatz, #36,811 March 7, 2008 Name of Person Signing Date Total number of pages including cover sheet, attachments and document: 7

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PATENT REEL: 020677 FRAME: 0418

Attorney Docket No. 5649-2386

ASSIGNMENT

THIS ASSIGNMENT, made by us, Sang-Yong Park, a citizen of the Republic of Korea, residing at 804-2001, Daewol Jugong Apt, Jeongja-dong, Jangan-gu, Suwon-si, Republic of Korea; Sung-Hyun Kwon, a citizen of the Republic of Korea, residing at 84-43, Jongam 1-dong, Seongbuk-gu, Seoul, Republic of Korea; Jae-Hwang Sim, a citizen of the Republic of Korea, residing at #204, Cheonggiwa, 656-38, Deungchon 1-dong, Gangseo-gu, Seoul, Republic of Korea; Keon-Soo Kim, a citizen of the Republic of Korea, residing at 104-1501, Doosan We've Apt., Banwol-dong, Hwaseong-si, Gyeonggi-do, Republic of Korea; and Jae-Kwan Park, a citizen of the Republic of Korea, residing at 104-1702, Samik 1cha Apt., Geumgok-dong, Gwonseon-gu, Suwon-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That,

| WHEREAS, we are the joint inventors of cer | tain new and useful improven | nents in |
|--|---------------------------------|-------------|
| Methods of Forming a Semiconductor Device for | which an application for Unite | ed States |
| Letters Patent has been filed, or is being filed concur | rently, in the United States Pa | tent and |
| Trademark Office. We hereby authorize and request | Myers Bigel Sibley & Sajove | x, P.A., to |
| insert here in parentheses (Application No. | , filed |) |
| the filing date and application number of said application | ation when known or to file th | is |
| Assignment concurrently with the application, and | | |

WHEREAS, Samsung Electronics Co., Ltd., a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International

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Page 1 of 6

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Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

| of | IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 3rd da March, 2008. | y |
|--------|--|---|
| | Sang-Yong Park | |
| Witne | ssed by: | |
| Date:_ | | |

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|] | IN WITNES | SS WHEREOF | , I have her | eunto set my | hand and s | eal on this | 3rd | day |
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| | March | | | | | | | |
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| | | Sun | Hyun K | Kwon | | | | |
| Witness | sed by: | | | | | | | |
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PATENT REEL: 020677 FRAME: 0421

| of | IN WITNESS WHEREOF, I have hereunto set my hand and seal on this, 2008. | 26th day |
|-------|---|----------|
| | Jae-Hwang Sim | |
| Witne | essed by: | |
| Date: | | |

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| IN WITNESS WI | HEREOF, I have hereunto set my hand and seal on this 314 o | lay |
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| of March., 20 | | |
| | Keon-Soo Kim | |
| Witnessed by: | | |
| Date: | | |

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| of March | S WHEREOF, I have hereunto set my hand and seal on this 3rd day |
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