FORM PTO-1595 (Modified) (Rev. 6-93) OMB No. 0651-0011 (exp.4/94) Copyright 1996-97 LegalStar P08A/REV02

PATENTS ON

03-15-2001



OF COMMERCE Frademark Office

| rab settings | · | |
|--|--|--|
| | : Please record the attached original documents or copy thereof. | |
| f. Name of conveying party(ies): | Name and address of receiving party(ies): | |
| KIM, Ji-soo PARK, Wan-jae | Name: SAMSUNG ELECTRONICS CO., LTD. 2 | |
| CHU, Chang-woong | P _L | |
| SEO, Sang-hun | Address: 416, Maetan-dong, Paldal-gu, | |
| Additional names(s) of conveying party(ies) | 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | |
| 3. Nature of conveyance: | O O | |
| | | |
| ☐ Security Agreement ☐ Change of Name | City: Suwon-city, Kyungki-do State/Prov.: | |
| ☐ Other | Country: Republic of Korea ZIP: | |
| Execution Date: February 7, 2001 | _ 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 application | n, the execution date of the application is: February 7, 2001 | |
| Patent Application No. Filing date | B. Patent No.(s) | |
| NEW FEB. 28, 2001 | 09794617 | |
| Additional numbers | ☐ Yes ☒ No | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: | |
| Name: ADAM C. VOLENTINE | 7. Total fee (37 CFR 3.41):\$ 40.00 | |
| Registration No. 33289 | Enclosed - Any excess or insufficiency should be | |
| Address: JONES VOLENTINE, LLC | credited or debited to deposit account | |
| 12200 SUNRISE VALLEY DRIVE, SUITE 150 | ☐ Authorized to be charged to deposit account | |
| | - 0 Danish annual annual annual | |
| City: RESTON State/Prov.: VA | 8. Deposit account number: | |
| Country: U.S.A. ZIP: 20191 | 50-0238 | |
| • | | |
| | T USE THIS SPACE \$6 | |
| Statement and signature. To the best of my knowledge and belief, the foregoing inform of the original document. | mation is true and correct an any attached copy is a true copy | |
| ADAM C. VOLENTINE | FEB. 28, 2001 | |
| Name of Person Signing | Signature g cover sheet, attachments, and | |
| Total number of pages including | g cover sheet, attachments, and PATENT | |
| | REEL: 011579 FRAME: 0341 | |

J O N E S VOLENTINE L.L.C. (1/2001)

ASSIGNMENT

| | In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned |
|--------------------------------|--|
| Insert Name(s) of Inventor(s) | KIM, Ji-soo |
| | PARK, Wan-jae |
| | CHU, Chang-woong and |
| | SEO, Sang-hun |
| Insert Name(s) of Assignee(s) | the undersigned hereby sell(s) and assign(s) to |
| Address | SAMSUNG ELECTRONICS CO., LTD. |
| | of 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea |
| Title of | (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 |
| Invention | CONDUCTING LINE OF SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD |
| | THEREOF USING ALUMINUM OXIDE LAYER AS HARD MASK |
| Date of Signing of Application | for which an application for patent in the United States of America has been executed by the undersigned |
| | on Les. 7.2001 |
| | 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 he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith. |
| | Page 1 of 2 |

PATENT REEL: 011579 FRAME: 0342

| In witness whereof, | , executed by the undersig | gned on the date(s) opposite the undersigned name(s). |
|--|--|---|
| . II 7 30 | None Ci | TO 1 |
| e Flah 7 xoz | Name of Inventor | Ji-soo KIM Wan-Jae Park Wan-jae PARK Chang-woong CHU Sang-hun SEO Sang-hun SEO |
| El 3 | , realise of inventor | Wan-jae PARK |
| Teb. /. 300 | /, Name of Inventor | Chang-woong CHU |
| teh. 7.200 | | Sang hun SEO |
| | , Name of Inventor | Sailg-Hull SEO |
| | | |
| |) | OWLEDGMENT |
| | ss | |
| | | |
| This | day of | , 19, before me personally came the |
| | day of | |
| | | |
| de personally known as th | | ed the foregoing assignment, who did acknowledge to me that |
| e personally known as the | e individual(s) who execute | ed the foregoing assignment, who did acknowledge to me that |
| e personally known as the | e individual(s) who execute | ed the foregoing assignment, who did acknowledge to me that rposes therein set forth. |
| personally known as the | e individual(s) who execute | ed the foregoing assignment, who did acknowledge to me that rposes therein set forth. |
| e personally known as the same of his (their | e individual(s) who execute ir) own free will for the pur | ed the foregoing assignment, who did acknowledge to me that rposes therein set forth. Official Signature |
| e personally known as the same of his (their | e individual(s) who execute ir) own free will for the pur | ed the foregoing assignment, who did acknowledge to me that rposes therein set forth. Official Signature Official Title |

RECORDED: 02/28/2001

PATENT REEL: 011579 FRAME: 0343