| Mail Sacp Assignment Recordation Services Customer Service Window Randolph Building 401 Dulany Street | U.S. PTO 12/216003 06/27/2008 | Atty. Docket No.: 8947-000096/US/DV | | |
|--|-------------------------------------|---|--|--|
| Alexandria, VA 22314 | | 9-2008 | | |
| RECORD. | | | | |
| To the Honorable Please record the a | 1035 | 12845 /ks: | | |
| 1. Name of conveying party(ies): | Ĭ | ame and address of receiving party(ies) | | |
| Jin-Yub LEE Sang-Won HWANG | | fame: Samsung Electronics Co., Ltd. treet Address: 416, Maetan-dong, Yeongton-gu, | | |
| Additional name(s) of conveying party(ies) attached? YES NO | | | | |
| 3. Nature of conveyance: | C | ity: Suwon-si , Gyeonggi-do | | |
| ✓ Assignment ✓ Merger ✓ Security Agree ✓ Change of Name ✓ Other: | ement C | country: Republic of Korea Postal Code: | | |
| Execution Date: June 23, 2008 | 4 | Additional name(s) & address(es) attached? TYES NO | | |
| 4. Application number(s) or patent number(s):If this document is being filed together with a new appA. Patent Application No(s). | | eution date of the application is: June, 2008 Patent No.(s). | | |
| | | ☐ YES ☒ NO | | |
| Name and address of party to whom correspondence concerning document should be mailed: | <u> </u> | otal No. of applications/patents involved: One (1) otal fee (37 C.F.R. § 3.41): \$40.00 | | |
| Name: HARNESS, DICKEY & PIERCE, P.L.C. | | Enclosed | | |
| Street Address: P.O. BOX 8910 | | Authorized to be charged to deposit account, if no fee attached. 8. Deposit account number: 08-0750 | | |
| City: RESTON State: VA ZIP: 20195 Country: USA | | | | |
| Country. Con | | (Attach triplicate copy of this page if paying by deposit account) | | |
| DO | NOT USE THIS | SPACE | | |
| 9. Statement and signature. To the best of my knowledge and belief, the form of the original document. John A. Castellano/35,094 Name of Person Signing/Reg. No. | oregoing informa | tition is true and correct and any attached copy is a true of June 27, 2008 Date | | |
| | luding cover shee | et, attachments, and document: 3 | | |
| 1 Otal number of pages me | | 1 | | |
| | V | 06/30/2008 SZEWDIE1 00000024 12216003 04 FC:8021 | | |
| | | JAC/AMV | | |

PATENT REEL: 021226 FRAME: 0096

ASSIGNMENT.

Atty. Docket No. 8947-000096/US

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

for which Assignor is about to make or has made United States or International application for

METHOD AND DEVICE FOR PERFORMING CACHE READING

| patent | | | |
|--------|---------|---------|--|
| ٠ | (a) | | executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney); |
| | (b) | | executed on,; or |
| | (c) | | filed on <u>November 30, 2004</u> , and assigned Serial No. <u>10/999,174</u> or PCT International Application No; and |
| • | ggi-do, | Republi | camsung Electronics Co., Ltd., 416, Maetan-dong, Yeongtong-gu, Suwon-si, ic of Korea, hereinafter referred to as Assignee, is desirous of acquiring all t therein: |

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor agrees to, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris-Convention, and any foreign countries, to the invention as described in the aforesaid application and all United States Letters Patent which may be granted therefore; and all divisions, continuations, reissues, reexaminations and extensions thereof, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past infringements of, or liabilities for, any of the rights relating to any of the applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

The undersigned hereby grant(s) the law firm of Hamess, Dickey & Pierce, P.L.C. 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 U.S. Patent and Trademark Office for recordation of this document.

Page 1 of 2

090171214191962 MARI ORDINE STORIGHT MINERAL MINERA MINERA MINERA MINERAL MINERAL MINERAL MINERAL MINE

ASSIGNMENT

Atty. Docket No. 8947-000096/US

Say was Hurry . Sang-Won HWANG !

Page 2 of 2

RECORDED: 06/27/2008

REEL: 021226 FRAME: 0098