IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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1. Name of party(ies) conveying an interest: Jin-Hyung CHO 2. Samsung Electronics Co., Ltd. Name and address of party(ies) receiving an interest: 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do Korea (South) 3. Description of the interest conveyed: ☐ Assignment ☐ Change of Name ☐ Security Agreement ☐ Merger Date of execution of attached document: June 14, 2005 4. Application number(s) or patent number(s). Additional sheet attached? Yes ___ No X If this document is being filed together with a new application, the execution date of the application is: Patent Application No. 11/154,076, filed on 15 Jun 2005 5. Name and address of party to whom correspondence concerning document should be mailed: I hereby certify that this correspondence MARGER JOHNSON & McCOLLOM, P.C. is being transmitted to the U.S. Patent and 210 S.W. Morrison Street, Suite 400 Trademark Office via facsimile number Portland, Oregon 97204 703-306-5995, on August 9. 2005. Telephone: (503) 222-3613 6. Number of applications and patents involved: 1 7. PTO Form 2038 authorizing credit card payment (\$40) is enclosed. 8. Any deficiency or overpayment should be charged or credited to deposit account number 13-1703. 9. 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. Dated: August 9, 2005 Respectfully submitted, MARGER JOHNSON & McCOLLOM, P.C.

> Alan T. McCollom Reg. No. 28,881

MARGER JOHNSON & McCOLLOM, P.C. 210 SW Morrison Street, Suite 400 Portland, OR 97204 (503) 222-3613

Total number of pages comprising cover sheet and attached assignment: 3

PATENT REEL: 016623 FRAME: 0965

700201559

PATENT APPLICATION Docket No. 2522-110 Client Ref. No. CX1009US/YA

ASSIGNMENT

U.S.A. Patent Application
Sole or Joint
For Inventions Made Outside U.S.A.
Executed With Application

In consideration of the sum of Ten Dollars (10.00) and other good and valuable considerations paid to each of the undersigned, to wit:

| (1) Jin-Hyung CHO | ☐ X if continued on separate page |
|---------------------------------------------------------|--------------------------------------------------------------------------------|
| the receipt and sufficience sell(s), assign(s) and tran | ey of which are hereby acknowledged by the undersigned who hereb sfer(s) unto: |
| SAMSUNG ELECTRO | ONICS CO., LTD. |
| 416 MAETAN-DONG, | YEONGTONG-GU |
| SUWON-SI, GYEONG | GI-DO |
| REPUBLIC OF KORE | A |

(hereinafter designated "ASSIGNEE") the entire right, title and interest in and to the invention as defined in 35 USC §100, for the United States of America, the invention entitled:

METHOD AND DEVICE FOR CONTROLLING INTERNAL POWER VOLTAGE, AND SEMICONDUCTOR MEMORY DEVICE HAVING THE SAME

for which an application for Letters Patent of the United States of America has been executed even date herewith by the undersigned, and in and to any and all divisionals, continuations, substitutes, and reissues thereof; and all resulting patents and the undersigned hereby authorizes and requests the United States Assistant Commissioner of Patents to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

And the undersigned hereby agrees to testify and execute any papers for ASSIGNEE, its successors, assigns and legal representatives, deemed essential by ASSIGNEE to ASSIGNEE'S full protection and title in and to the invention hereby transferred.

PATENT REEL: 016623 FRAME: 0966 Please sign concurrently with Oath or Declaration and Power of Attorney

INVENTOR(S)

SIGNED ON THE DATES INDICATED BESIDE OUR SIGNATURES: DATE SIGNED

WITNESSED

June 14, 2005

(1) Jin-hyung Cho.

Jin-Hyung CHO

PLEASE RETURN RECORDED ASSIGNMENT TO:

Alan T. McCollom Marger Johnson & McCollom 1030 S.W. Morrison Street Portland, OR 97205

RECORDED: 08/09/2005