U.S. DEPARTMENT OF COMMERCE

5-8-0 RECORD (Rev. 03/01) U.S. Patent and Trademark Office 102448317 OMB No. 0651-0027 To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): SAMSUNG ELECTRONICS CO., LTD. Ho-woong KANG 416, Maetan-dong, Paldal-gu, Suwon-city, Gyunggi-do, Korea At ditional name(s) of conveying party(ies) attached? \(\subseteq \) Yes \(\subseteq \) No 3. Nature of conveyance: ☐ Merger ☑ Assignment ☐ Security Agreement ☐ Change of Name ☐ Other E ecution Date: April 14, 2003 Additional name(s) & address(es) attached?

Yes 4 Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: April 14, 2003 B. Patent No.(s) A. Patent Application No.(s) Not yet assigned Not yet assigned 10,431514 Additional numbers attached? ☐ Yes ☑ No 6. Total number of applications and patents involved: 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41): SUGHRUE MION, PLLC \$40.00 ☑ Enclosed. WASHINGTON OFFICE ☐ Authorized to be charged to Deposit Account No. 19-4880. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit 23373 Account No. 19-4880. Please also credit any overpayments to said PATENT TRADEMARK OFFICE Deposit Account. 8. Deposit Account Number: 19-4880 (Attach duplicate 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 foregoing information is true and correct and any attached copy is a true copy of the original document. Americ Reg. No. 23,063 May 8, 2003 Total number of pages including cover sheet, attachments, and documents: 2 Mail documents to be recorded with required cover sheet information to: MAIL STOP ASSIGNMENT RECORDATION SERVICES Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

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Form PTO-1595 (modified)

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PATENT REEL: 014055 FRAME: 0455

Docket No. Q73112 For Non-U.S. Clients

Assignment

Assignment
Whereas, I Ho-woong KANG of, 109-40, Donga Apartment, 664, Pungdeokchun-ri, Sujieub, Youngin-city, Gyunggi-do, Korea, hereinafter called assignor, have invented certain improvements in APPARATUS AND METHOD FOR SIGNAL PROCESSING IN DIGITAL VIDEO SYSTEM and executed an application for Letters Patent of the United States of America therefor on; and
Whereas, SAMSUNG ELECTRONICS CO., LTD., 416, Maetan-dong, Paldal-gu, Suwon-city, Gyunggi-do, Korea (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;
Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,
I, the above named assignor, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. §119, and I request the Director – U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.
I hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number and Confirmation number, filed) the application number, confirmation number, and filing date of said application when known.
Date: 0-Woong KANG April 14, 2003
ALIO-MOOIIS KAINO

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

RECORDED: 05/08/2003

PATENT REEL: 014055 FRAME: 0456