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F Attorney Docket No. 5000-1-58\$ o 102762842

b-2-04 To the Assistan	nt Commissioner for Patents	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):	
Sung-Kee KIM; Han-Lim LEE; Seong-Taek HWA	2. Name and address of receiving party(ies): NG Name: SAMSUNG ELECTRONICS CO.: LTD.	
Additional name(s) of conveying party(ies) attached? [1 Yes [X] Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name Other: Execution Date: May 6, 2004	Address: 416, MAETAN-DONG, YEONGTONG-GU SUWON-SI, GYEONGGI-DO REPUBLIC OF KOREA Additional name(s) & address(es) attached? [] Yes [X] No	
4. Application number(s) or patent number(s): If this document is being filed together with a new application A. Patent Application No.(s)	B. Patent No.(s) May 6, 2004 / O/SF9/9	
Additional numbers attached? [] Yes [] No		
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: _1	
Name: Steve Cha Address: CHA & REITER 210 Route 4 East, Suite #103 Paramus, New Jersey 07652	7. Total fee (37 CFR 3.41): \$40.00 [X] Enclosed [X] Authorized to be charged to deposit account, if necessary - for overages or underpayments only 8. Deposit account number: 502-470 (Attach duplicate copy of this page if paying by deposit account)	
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(BDSM 8) (9/94)

Docket No.: 5000-1-589

Assignment of Invention and Patent Application

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for and in consideration of TEN (\$10.00) DOLLAR,

- Sung-Kee KIM of Samcheonri 2-cha APT., 1238, Gwonseon-dong, Gwonseon-gu, Suwon-si, Gyeonggi-do, Republic of Korea
- 2) Han-Lim LEE of #202, 602-170, Namhyeon-dong, Gwanak-gu, Seoul, Republic of Korea
- 3) Seong-Taek HWANG of #102-303, Daerim APT., Dokgok-dong, Pyeongtaek-si, Gyeonggi-do, Republic of Korea

(hereinafter Assignor) hereby sells, assigns, transfers, and sets over unto:

SAMSUNG ELECTRONICS CO., LTD. of 416, MAETAN-DONG, YEONGTONG-GU, SUWON-SI, GYEONGGI-DO, REPUBLIC OF KOREA

(hereinaster Assignee) the entire right, title and interest for the United States Of America as defined in 35 U.S.C.§ 1.00, in and to the invention entitled as:

DUO-BINARY ENCODER AND OPTICAL DUO-BINARY TRANSMISSION APPARATUS

invented by Assignor; the application for United States patent therefor, invented by Assignor, any patent or reissues of any patent that may be granted thereon; and any applications which are continuations, continuation-in-part, substitutes, or divisions of said application. Assignor authorizes Assignee to enter the date of signature and/or Serial Number and Filing Date in the above. Assignor also authorizes and requests the Commissioner of Patents and Trademarks to issue any resulting patent(s) to the said Assignee, for its interests as Assignee, its successors, assigns and legal representatives. The undersigned agrees that the attorney of record in said application shall hereafter act on behalf of said Assignee; and Assignor further conveys to Assignee all priority rights resulting from the above-identified application for United States Patent. Assignor agrees to execute all papers, give any required testimony and perform other lawful acts, as deemed essential by Assignee to perfect Assignee's interest in any resulting patent of the United States, and to acquire, hold, enforce, convey, and uphold the validity of said patent and reissues and extensions thereof, and Assignee's interest therein.

1

PATENT REEL: 015435 FRAME: 0592

SIGNED ON THE DATES(S) INDICATED BESIDE MY/OUR SIGNATURE(S):

Name of First Inventor: Sung-Kee KIM

Sung kee kim
Signature of inventor

Dated: May 6, 2004

WITNESSED: Jong - Hee KIM

Name of Second Inventor: Han-Lim LEE

Han Lm Lee
Signature of inventor

Dated: May 6, 2004

WITNESSED: Jong-Hee KIM

Name of Third Inventor: Seong-Taek HWANG

RECORDED: 06/02/2004

Seony Cack Hward
Signature of inventor

Dated: May 6, 2004

WITNESSED: Jong - Hee KIM