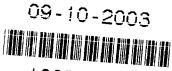
FORM PTO-1595 (Rev. 6/93)



U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

HEET

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Attorney Docket No. 5000-1-435

To the Assistant Commissioner for Patents 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Yu-Sheop LEE; Hyun-Ho RYOO; Gi-Tae MUN; SAMSUNG ELECTRONICS CO.: LTD Young-Kwon YOON Address: 416, MAETAN-DONG, PALDAL-GU Additional name(s) of conveying party(ies) attached? [] Yes [X] No SUWON-CITY, KYUNGKI-DO 3. Nature of conveyance: KOREA, REPUBLIC OF KOREA [X] Assignment [] Merger [] Security Agreement [] Change of Name Other: __ Additional name(s) & address(es) attached? [] Yes [X] No Execution Date: August 28, 2003 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: August 28, 2003 A. Patent Application No.(s) B. Patent No.(s) 10/1638/4 [] Yes [x] No Additional numbers attached? 5. Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: 1 document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 Name: Steve Cha [X] Enclosed Address: CHA & REITER 411 Hackensack Avenue, 9th Floor [X] Authorized to be charged to deposit account, if necessary Hackensack, New Jersey 07601 - for overages or underpayments only 8. Deposit account number: 502-470 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 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. Steve Cha, Reg No.44,069 Name of Person Signing Total number of pages including cover sheet, attachments, and document: 3

Mail documents to be recorded with required cover sheet information to:

Assistant Commissioner for Patents Box Assignments Washington, D.C. 20231

7/2003 STEDMEL1 00000030 10653814 D:3021 40.00 OP

> (BDSM 8) (9/94)

Docket No.: 5000-1-435

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,

- Yu-Sheop LEE of #104-1503, Shinil APT., Yuljon-dong, Changan-gu, Suwon-shi, Kyonggi-do, Republic of Korea
- 2) Hyun-Ho RYOO of 1025-3, Youngtong-dong, Paldal-gu, Suwon-shi, Kyonggi-do, Republic of Korea
- 3) Gi-Tae MUN of #214-1101, Wonchon Jugong 2-danji APT., Wonchon-dong, Paldal-gu, Suwon-shi, Kyonggi-do, Republic of Korea
- 4) Young-Kwon YOON of
 #902-306, Mokryeon APT., Hogye-dong, Tongan-gu, Anyang-shi, Kyonggi-do,
 Republic of Korea

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

SAMSUNG ELECTRONIC CO., LTD. of 416, MAETAN-DONG, PALDAL-GU, SUWON-CITY, KYUNGKI-DO, KOREA REPUBLIC OF KOREA

(hereinafter 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:

BI-DIRECTIONAL OPTICAL TRANSCEIVER MODULE

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.

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

Name of First Inventor: Yu-Sheop LEE	Yu-Sheop LEE
·	Signature of inventor
	Dated: August 28, 2003
	WITNESSED: Jong-Hee KIM
Name of Second Inventor: Hyun-Ho RY	00 Hyun - Ho RYOO
	Signature of inventor
	Dated: August 28, 2003
	WITNESSED: Jong-Hee KIM
. Name of Third Inventor: Gi-Tae MUN	Gi-Tae MUN
	Signature of inventor
	Dated: August 28, 2003
	WITNESSED: Jong-Hee KZM
Name of Fourth Inventor: Young-Kwo	
	Signature of inventor
	Dated: August 28, 2003

2

PATENT REEL: 014459 FRAME: 0337

WITNESSED: Jong-Hee KZHT

RECORDED: 09/03/2003