FORM PTO-1595 (Rev. 6/93)



U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

R SHEET

Attorney Docket No. 5000-1-2900

To the Assistant Commissioner for Patents			
1. Name of conveying party(ies): 0.30.03 Whan-Jin SUNG; Tae-Sung PARK; Shin-Hee WON; Min-Hyo LEE	2. Name and address of receiving party(ies): Name: SAMSUNG ELECTRONICS CO.: LTD. Address: 416, MAETAN-DONG, PALDAL-GU		
Additional name(s) of conveying party(ies) attached? [1 Yes [X] No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name	SUWON-CITY, KYUNGKI-DO KOREA, REPUBLIC OF KOREA Additional name(s) & address(es) attached? [] Yes [X] No		
Other:	[1] 163		
4. Application number(s) or patent number(s):If this document is being filed together with a new application, the A. Patent Application No.(s)	e execution date of the application is: B. Patent No.(s) January 29, 2003		
Additional numbers attached? [] Yes [x] 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 411 Hackensack Avenue, 9th Floor Hackensack, New Jersey 07601	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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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true Steve Cha, Reg No.44,069 Name of Person Signing	and correct and any attached copy is a true copy of the original document. 3 - 0 7 Signature Date Total number of pages including cover sheet, attachments, and document: 3		

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> (BDSM 8) (9/94)

PATENT REEL: 013719 FRAME: 0875 PTO/SB/15

01-30 14:31 THU FROM: K.J.LEE

Docket No.: 500-1-290

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,

- Whan-Jin SUNG of
 1020-4, Youngtong-dong, Paldal-gu, Suwon-shi, Kyonggi-do, Republic of Korea
- Tae-Sung PARK of #612-1201, Kukdong APT., Youngtong-dong, Paldal-gu, Suwon-shi, Kyonggi-do, Republic of Korea
- 3) Shin-Hee WON of 960, Togok-dong, Kangnam-gu, Seoul, Republic of Korea
- 4) Min-Hyo LEE of #902-506, Jugong APT., Byuckjukgol 9-danji, Youngtong-dong, Paldal-gu, Suwon-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:

IDLE-PATTERN OUTPUT CONTROL CIRCUIT USED IN A GIGABIT ETHERNET-PASSIVE OPTICAL NETWORK

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: 013719 FRAME: 0876

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

8227435247

Name of Sole or First Inventor: Whan-Jin SUNG Signature of inventor		
		Dated:
Name of Second Inventor:	Tae-Sung PARK	Signature of inventor
		Dated:
Name of Third Inventor:	Shin-Hee WON	Signature of inventor
Name of Fourth Inventor:	Min-Hyo LEE	Dated: Jan. 29, 2003 WITNESSED:
	-	Signature of inventor Dated:

2

PATENT **REEL: 013719 FRAME: 0877**

RECORDED: 01/30/2003