07-22-2004	
BOX ASSIGNMENTS (	DO NOT USE FOR TRADEMARKS
TO THE ASSISTANT COMMISSIONER OF PATENTS, 1968	RA1
SIR: PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COLLIMETERS.	
1. NAME OF CONVEYING PARTY(IES) (ASSIGNORS(S)):  (a) Marc R. Bernard	1
(b) Andrew E. Khaleel	OIPE
(c) Luiz A. Izola (d) Nora Herndon	\$510
(e) Kerry J. Neef	JUL 1 9 2006
ADDITIONAL NAME(S) OF CONVEYING PARTY(IES) ATTACH	IED? □YES ☑NO
2. PARTY(IES) (ASSIGNEE(S)) RECEIVING INTEREST: NAME:	IED? □YES ⊠NO
ADVANCED FIBRE COMMUNICATIONS, INC.	
1465 N. McDowell Boulevard Petaluma, California 94954	
ADDITIONAL NAME(S) & ADDRESS(ES) ATTACHED? YES  3. NATURE OF CONVEYANCE (DOCUMENT):	S ⊠NO
(Submit herewith only one document for recordation—multiple	e copies of same Assignment signed by different inventors is one
document)  ☑ASSIGNMENT OF ☑WHOLE ☑PATENT AF	PPLICATION <b>EXEC. DATES:</b> (a) 07-06-2004; (b) 07-06-2004;
☐ORIGINAL ☐FAX/COPY	(c) 07-06-2004; (d) 07-12-2004; (e) 07-06-2004
☐ CHANGE OF NAME ☐ VERIFIED TRANSLATION ☐ SECURITY ☐ MERGER ☐ Other	L
EXECUTION DATE(S) ON THE DECLARATION IF FILED HEREWITH	
4.5 APPL. NO.(S) OR PAT NO.(S). OTHERS ON ADDITIONAL  A. PAT. APP. NO.(S). Filing Date. 1* INVENTOR	SHEET(S) attached?  YES NO B. PATENT NO(S)  1* INVENTOR
10/783,716 February 19, 2004	If not in item 1
5. Name & Address of Party to Whom Correspondence	6. NUMBER INVOLVED:
Concerning Document Should be Mailed:	APPLNS 1 + PATS 0 = TOTAL 1
David A. Jakopin Pillsbury Winthrop LLP	7. AMOUNT OF FEE = \$40 CHARGE TO DEPOSIT ACCOUNT 50-2213
2475 Hanover Street Palo Alto, CA 94304	(ORDER NO. 009584-0308305)
T dio fillo, On 34304	8. IF ABOVE FEE IS MISSING OR INADEQUATE CHARGE
	INSUFFICIENCY TO DEPOSIT ACCOUNT NUMBER: 50-2213 UNDER ORDER NO 009584 0308305
ATTY DKT: AFC-013	dup. sheet not required CLIENT NO. MATTER NO.
9. STATEMENT AND SIGNATURE. To the best of my knowled	
07/21/2004 HEETACHE 00000134 502213 10783/16	10. Total number of pages <u>including</u> this cover sheet, attachments and document
01 FQ-8021 40_00-90	(do not file dup. Cover sheet)
By:	
David A. Jakopin, Reg. No. 32,995	Data July 42, 2004
TEL: (650) 233-4500	Date: July 13, 2004 FAX: (650) 233-4545
	, ,

PATENT

REEL: 015574 FRAME: 0589

Atty Dkt : 009584-0308305 Client Ref: AFC-013

## ASSIGNMENT of U.S. Origin Patent Application

WHEREAS, the undersigned, MARC R. BERNARD, ANDREW E. KHALEEL, LUIZ A. IZOLA, NORA HERNDON, and KERRY J. NEEF have made an invention entitled *Optical Line Termination*, Passive Optical Network, and Method and Apparatus for Performance Monitoring, for which an application for Letters Patent of the United States was filed in the United States Patent and Trademark Office on February 19, 2004, under Serial No. 10/783,716 and

WHEREAS, ADVANCED FIBRE COMMUNICATIONS, INC. (hereinafter ASSIGNEE), a body having corporate powers under the laws of the State of Delaware, and having a place of business at 1465 N. McDowell Boulevard, Petaluma, California 94954, desires to acquire an interest therein:

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NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, said ASSIGNORS do hereby sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right, title and interest to the said invention in the United States and all foreign countries, as described in the aforesaid application, and to the said application and to all continuations, divisions, reissues and substitutes of said application, together with the right of priority under the International Convention for the Protection of Industrial Property. Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and ASSIGNORS hereby authorize and request the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives.

AND ASSIGNORS hereby agree to execute any papers requested by ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

ASSIGNORS furthermore agree upon request of said ASSIGNEE, and without further remuneration, to execute any and all papers desired by said ASSIGNEE for the filing and granting of foreign applications and the perfecting of title thereto in said ASSIGNEE.

Executed on the date below indicated.

Signature

Mare R. Bernard

Andrew E. Khaleel

Luiz A. Izola

Date Signed

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07/06/04

07/06/04

Witness

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**RECORDED: 07/19/2004** 

**PATENT REEL: 015574 FRAME: 0591**