

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
5 June 2008 (05.06.2008)

PCT

(10) International Publication Number  
**WO 2008/067456 A3**

(51) International Patent Classification:  
G02B 6/38 (2006.01)

(74) Agent: BRUESS, Steven, C.; Merchant & Gould P.C.,  
P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(21) International Application Number:  
PCT/US2007/085923

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date: 13 March 2008 (13.03.2008)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): ADC TELECOMMUNICATIONS, INC. [US/US]; 13625 Technology Drive, Eden Prairie, MN 55344-2252 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SCADDEN, Jarrod [US/US]; 316 Wildhurst Road, Waconia, MN 55387 (US). KHEMAKHEM, M'hamed, Anis [TN/US]; 8819 Knollwood Drive, Eden Prairie, MN 55347 (US). PETERS, Jeffrey, Louis [US/US]; 2057 Royale Drive, Eagan, MN 55122 (US). SKLUZACEK, Kenneth, Allen [US/US]; 845 Daniel Drive, Belle Plaine, MN 56011 (US). KACHMAR, Wayne, M. [US/US]; 514 Orebed Road, North Bennington, VT 05257 (US).

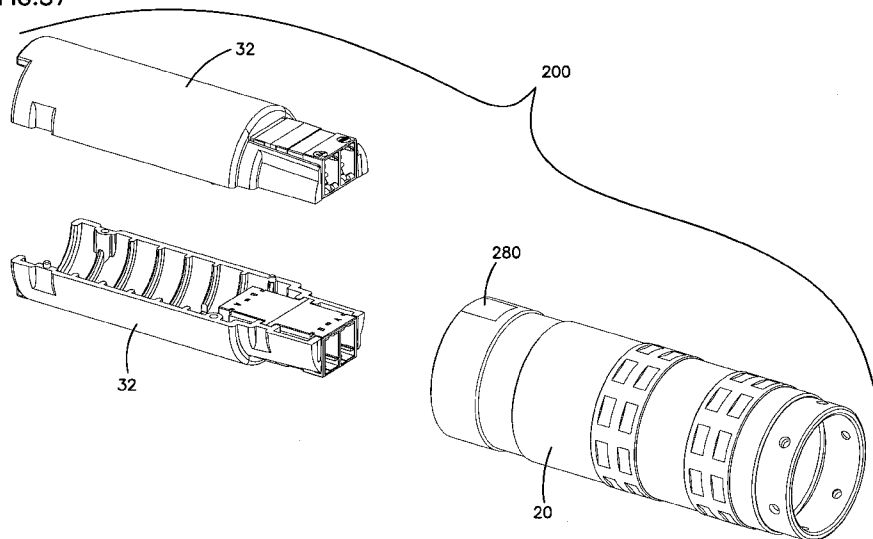
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:  
— with international search report

[Continued on next page]

(54) Title: FIBER CONNECTOR SYSTEM AND METHOD

FIG.57



(57) Abstract: A hybrid fiber/copper connector assembly which permits repair of damaged fibers or copper conductors carried by a hybrid fiber/copper cable without requiring replacement of the entire connector assembly or the cable is disclosed. The hybrid fiber/copper connector assembly disclosed also allows individual hybrid fiber/copper connectors of the assembly to be converted from one gender to a different gender. The hybrid fiber/copper connector assembly disclosed also allows the individual hybrid fiber/copper connectors of the assembly to be converted from being hybrid fiber/copper connectors to being only fiber connectors or only copper connectors.

WO 2008/067456 A3



— *with information concerning one or more priority claims considered void*

**(88) Date of publication of the international search report:**  
12 February 2009

**(15) Information about Correction:**  
**Previous Correction:**  
see Notice of 24 December 2008

# INTERNATIONAL SEARCH REPORT

International application No <b>PCT/US2007/085923</b>
----------------------------------------------------------

**A. CLASSIFICATION OF SUBJECT MATTER**  
**INV. G02B6/38**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
**G02B**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
**EPO-Internal**

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/052472 A1 (ROTH RICHARD F [US] ET AL) 18 March 2004 (2004-03-18) figures 2,12	1-15
A	US 2006/233496 A1 (KHEMAKHEM M HAMED A [US] ET AL KHEMAKHEM M HAMED ANIS [US] ET AL) 19 October 2006 (2006-10-19) paragraph [0109]; figures 7,31	1-15
A	EP 0 803 749 A (FRAMATOME CONNECTORS INT [FR]) 29 October 1997 (1997-10-29)	
A	US 4 611 887 A (GLOVER DOUGLAS W [US] ET AL) 16 September 1986 (1986-09-16)	
A	WO 86/00147 A (AMP INC [US]) 3 January 1986 (1986-01-03)	
	-/--	

Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>	<p>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>* &amp; * document member of the same patent family</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Date of the actual completion of the international search <b>5 September 2008</b>	Date of mailing of the international search report <b>17/09/2008</b>
--------------------------------------------------------------------------------------	-------------------------------------------------------------------------

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>Verbandt, Yves</b>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2007/085923

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 996 012 A (MOLEX INC [US]) 26 April 2000 (2000-04-26) -----	
A	EP 1 221 630 A (MOLEX INC [US]) 10 July 2002 (2002-07-10) -----	
A	EP 0 996 011 A (MOLEX INC [US]) 26 April 2000 (2000-04-26) -----	
A	US 4 449 784 A (BASOV EMMA [US] ET AL) 22 May 1984 (1984-05-22) -----	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/085923

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004052472	A1	18-03-2004	NONE
US 2006233496	A1	19-10-2006	AR 053057 A1 18-04-2007 CN 101160541 A 09-04-2008 EP 1875286 A1 09-01-2008 WO 2006113154 A1 26-10-2006
EP 0803749	A	29-10-1997	DE 69733704 D1 18-08-2005 DE 69733704 T2 20-04-2006 JP 3758805 B2 22-03-2006 JP 10048474 A 20-02-1998 NL 1002956 C2 28-10-1997 US 5828805 A 27-10-1998
US 4611887	A	16-09-1986	NONE
WO 8600147	A	03-01-1986	AR 240970 A1 27-03-1991 DE 3580976 D1 31-01-1991 DE 3587487 D1 02-09-1993 DE 3587487 T2 17-02-1994 DE 3587537 D1 23-09-1993 DE 3587537 T2 03-03-1994 EP 0183820 A1 11-06-1986 EP 0260774 A2 23-03-1988 EP 0307518 A2 22-03-1989 ES 8706972 A1 16-09-1987 ES 8801041 A1 16-02-1988 JP 6100698 B 12-12-1994
EP 0996012	A	26-04-2000	CA 2282981 A1 15-04-2000 CN 1251908 A 03-05-2000 DE 69919293 D1 16-09-2004 DE 69919293 T2 11-08-2005 JP 3166083 B2 14-05-2001 JP 2000121875 A 28-04-2000 KR 20000029059 A 25-05-2000 SG 92653 A1 19-11-2002 TW 413334 Y 21-11-2000 US 6240228 B1 29-05-2001
EP 1221630	A	10-07-2002	CN 1365167 A 21-08-2002 JP 3780943 B2 31-05-2006 JP 2002333551 A 22-11-2002 KR 20020050140 A 26-06-2002
EP 0996011	A	26-04-2000	CA 2282977 A1 15-04-2000 CN 1251909 A 03-05-2000 DE 69915766 D1 29-04-2004 DE 69915766 T2 17-02-2005 JP 3194226 B2 30-07-2001 JP 2000121876 A 28-04-2000 KR 20000029060 A 25-05-2000 SG 87831 A1 16-04-2002 TW 452089 Y 21-08-2001 US 6267514 B1 31-07-2001
US 4449784	A	22-05-1984	JP 58016213 A 29-01-1983