(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 29 May 2008 (29.05.2008) (10) International Publication Number WO 2008/063460 A3

(51) International Patent Classification: *G02B 6/44* (2006.01)

(21) International Application Number:

PCT/US2007/023741

(22) International Filing Date:

13 November 2007 (13.11.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

11/598,513 13 November 2006 (13.11.2006)

(71) Applicant (for all designated States except US): CORN-ING CABLE SYSTEMS LLC [US/US]; 800 17th Street NW, P. O. Box 489, Hickory, NC 28601 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEWALLEN, Christopher, Paul [US/US]; 2575 Grant Road, Hudson, NC 28638 (US). LUTHER, James [US/US]; 2471 Rolling Ridge Drive, Hickory, NC 28602 (US). ELKINS II, Robert [US/US]; 2472 23rd Street NE, Hickory, NC 28601 (US). SARAVANOS, Costas [CA/US]; 965 Crown Court, Highland Village, TX 75077 (US).

MAKRIDES-SARAVANOS, Elli [CA/US]; 965 Crown Court, Highland Village, TX 75077 (US).

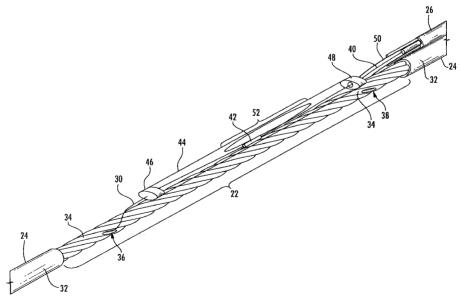
- (74) Agent: ROBERSON, Keith, A.; 800 17th St. NW, P. O. Box 489, Hickory, NC 28601 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, 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.
- (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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, 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: CABLE ASSEMBLY HAVING BEND PERFORMANCE OPTICAL FIBER SLACK COIL



b (57) Abstract: A fiber optic cable assembly including a mid-span access location, a cable (24) having at least fiber (30) therein, and a tether (26) attached and spliced to at least one fiber (30) of the cable. The access location and portions of the cables are substantially encapsulated within a flexible body (44) having dimensions sufficient to accommodate a slack coil or loop (52) of bend performance optical fiber therein. A method for making a fiber optic cable assembly including an access location, distribution cable, tether and slack coil of optical fiber maintained within a flexible overmolded body while providing an assembly having a cross-sectional diameter less than about 1.25 inches (3.175cm).



- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 10 July 2008

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/023741

CLASSIFICATION OF SUBJECT MATTER ÎNV. G02B6/44 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) GO2B 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, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. JP 62 054204 A (FUJIKURA LTD; NIPPON 1,3-12,TELEGRAPH & TELEPHONE) 16,17, 9 March 1987 (1987-03-09) 20,23,24 abstract; figure 1 13-15, 19,21,25 US 2006/045451 A1 (WU JUNJUN [US] ET AL) 1-12,16,2 March 2006 (2006-03-02) 17,23,24 paragraphs [0002], [0038], US 2004/052484 A1 (BROENG JES [DK] ET AL) 3,17,24 18 March 2004 (2004-03-18) abstract paragraphs [0003], [0008], [0044], [0067] See patent family annex. Further documents are listed in the continuation of Box C. Special categories of cited documents: "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 "A" document defining the general state of the art which is not considered to be of particular relevance earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docudocument referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means "P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 08/05/2008 25 April 2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Riblet, Philippe Fax: (+31-70) 340-3016

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/023741

C(Continue	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Υ	US 4 961 623 A (MIDKIFF JOHN A [US] ET AL) 9 October 1990 (1990-10-09) the whole document	1-25
Y	US 2006/193573 A1 (GREENWOOD JODY L [US] ET AL GREENWOOD JODY L [US] ET AL) 31 August 2006 (2006-08-31) paragraphs [0086] - [0090]; figures 15-17	1-25
,	EP 0 465 127 A (TELEPHONE CABLES LTD [GB]) 8 January 1992 (1992-01-08) abstract; figures 1,2 column 2, lines 26-57	1-25
(US 5 997 186 A (HUYNH VAN L [US] ET AL) 7 December 1999 (1999-12-07) column 1, line 66 - column 2, line 4; figures 1-5 column 2, lines 26-57 column 5, line 17 - column 6, line 8	1-25
, ·	US 2005/111800 A1 (COOKE TERRY L [US] ET AL COOKE TERRY L [US] ET AL) 26 May 2005 (2005-05-26) paragraph [0044]; figure 10	1-25
	JP 2003 177254 A (FURUKAWA ELECTRIC CO LTD) 27 June 2003 (2003-06-27) abstract; figure 1	1-25
1		
		1
-		
	·	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2007/023741

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 62054204	A 09-03-1987	NONE	
US 2006045451	A1 02-03-2006	WO 2006026664 A1	09-03-2006
US 2004052484	A1 18-03-2004	AU 1494402 A WO 0239159 A1 GB 2384323 A	21-05-2002 16-05-2002 23-07-2003
US 4961623	A 09-10-1990	NONE	
US 2006193573	A1 31-08-2006	NONE	
EP 0465127	A 08-01-1992	GB 2246646 A	05-02-1992
US 5997186	A 07-12-1999	WO 9959013 A1	18-11-1999
US 2005111800	A1 26-05-2005	NONE	
JP 2003177254	A 27-06-2003	NONE	