

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/062786 A3

(51) International Patent Classification⁷: **H04B 10/00**

(21) International Application Number:
PCT/US2004/042401

(22) International Filing Date:
16 December 2004 (16.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/741,795 19 December 2003 (19.12.2003) US

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

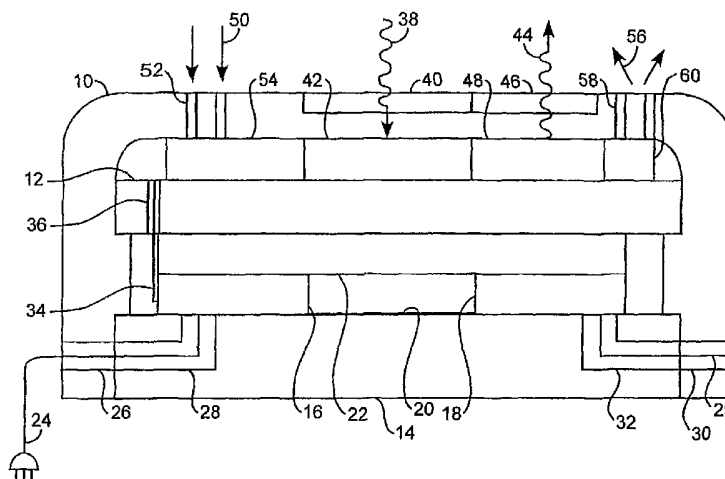
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: INTEGRATED GLASS CERAMIC SYSTEMS



GLASS CERAMIC PHONE

(57) Abstract: Integrated glass ceramic spacecraft include a plurality of glass ceramic components including molded, tempered, annealed, and patterned glass ceramic components coupled together for forming a support structure or frame or housing through which is communicated optical signals through an optical communications grid and electrical signals through an electrical communications grid, with the optical communications grid and electrical communication grid forming a composite electrooptical communications grid for spacecraft wide intercommunications. The support structure multifunctions as a frame, a housing, a support, a thermal control system, and as part of an electrooptical communications grid while encapsulating a plurality of optical, electronic, electrical, and MEMS devices between which is communicated the electrical and optical signals over the electrooptical communication grid.

WO 2005/062786 A3



(88) Date of publication of the international search report:

9 September 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/42401

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04B 10/00

US CL : 398/128

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)

U.S. : 398/128, 121, 124, 125, 128-132, 135-140, 184, 201, 202, 212, 118; 385/14, 147, 88-94

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,E	US 2005/0053336 A1 (ITO et al) 10 March 2005 (10.03.2005), see entire document.	1-19
A,P	US 2004/0184737 A1 (OONO et al) 23 September 2004 (23.09.2004), see entire document.	1-19
A	US 2002/0102072 A1 (CHAN et al) 01 August 2002 (01.08.2002), see entire document.	1-19
A,E	US 6,890,805 B2 (YAMAZAKI et al) 10 May 2005 (10.05.2005), see entire document.	1-19
A,P	US 6,789,956 B2 (IWAKI et al) 14 September 2004 (14.09.2004), see entire document.	1-19
A,P	US 6,694,069 B2 (KANEKO et al) 17 February 2004 (17.02.2004), see entire document.	1-19
A	US 6,605,497 B2 (YAMAZAKI et al) 12 August 2003 (12.08.2003), see entire document.	1-19
A	US 6,477,284 B1 (ODA et al) 05 November 2002 (05.11.2002), see entire document.	1-19
A	US 6,444,390 B1 (YAMAZAKI et al) 03 September 2002 (03.09.2002), see entire document.	1-19



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Date of the actual completion of the international search

28 June 2005 (28.06.2005)

Date of mailing of the international search report

12 JUL 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/42401

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,337,388 A (JACOBOWITZ et al) 09 August 1994 (09.08.1994), see entire document.	1-19
A	US 5,200,631 A (AUSTIN et al) 06 April 1993 (06.04.1993), see entire document.	1-19
A	US 5,333,225 A (JACOBOWITZ et al) 26 July 1994 (26.07.1994), see entire document.	1-19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/42401

Continuation of B. FIELDS SEARCHED Item 3:

EAST: US-PGPUB; USPAT; EPO; JPO

search terms: (optic4 near2 (signal or communication or data)) and (electric\$ near2 (signal or communication or data)) and (glass near ceramic) and (photostructurable or photositalls or photocerams); (glas near ceramic) and (photostructurable or photositalls or photocerams); (glass near ceramic) and (photostructurable or photositalls or photocerams) and (optic\$ or electric\$)