

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 October 2002 (17.10.2002)

PCT

(10) International Publication Number
WO 02/082585 A3

- (51) International Patent Classification⁷: H01R 13/70
- (21) International Application Number: PCT/US02/09932
- (22) International Filing Date: 28 March 2002 (28.03.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/828,706 6 April 2001 (06.04.2001) US
- (71) Applicant: ADC TELECOMMUNICATIONS, INC.
[US/US]; 13625 Technology Drive, Eden Prairie, MN
55344-2252 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

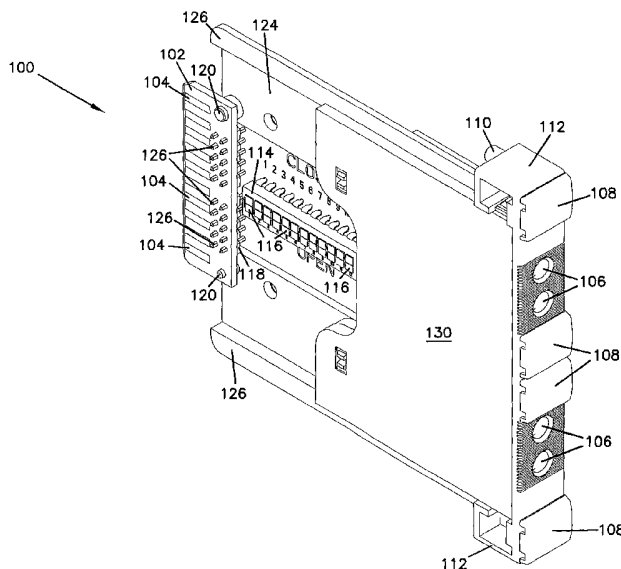
- (72) Inventors: FOLLINGSTAD, Michael, Jay; 5825 York Avenue South, Edina, MN 55410 (US). ADAMS, Peter, W.; 2714 Pierce Street NE, Minneapolis, MN 55418 (US). PETERS, Jeffrey, Louis; 2057 Royale Drive, Eagan, MN 55122 (US).
- (74) Agents: BRUESS, Steven, C. et al.; Merchant & Gould P.C., P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

Published:
— with international search report

(88) Date of publication of the international search report:
13 February 2003

[Continued on next page]

(54) Title: ELECTRONIC SIGNAL TRANSMISSION AND SWITCHING JACK



(57) Abstract: The present invention relates to an electronic signal switching module with connectors on a first side for connecting with a variety of devices and sources and with jacks for receiving patch cords on a second side. The switching modules include two position switches in the circuitry connecting the jacks with the connectors which allow the module to be configured as a straight-through patching module, a fully normal module with paired jacks or a half normal module with paired jacks. One alternative of the invention utilizes card edge connectors on the first side. Another aspect of the invention involves a chassis for holding a plurality of switching modules adjacent to and electronically connected with a plurality of connecting modules. The switching modules may also include designation lenses adjacent to the jacks for holding indicia.



WO 02/082585 A3



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/US 02/09932

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01R13/70

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)

IPC 7 H01R

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, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 552 962 A (FEUSTEL CLAY A ET AL) 3 September 1996 (1996-09-03) column 2, line 1 - line 55 column 3, line 32 -column 4, line 8; figures 1,2	1, 4-20, 25, 27
A	WO 96 37929 A (ADC TELECOMMUNICATIONS INC) 28 November 1996 (1996-11-28) page 9, line 10 -page 11, line 9; figure 7	1-28
A	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 11, 26 December 1995 (1995-12-26) & JP 07 211375 A (MATSUSHITA ELECTRIC WORKS LTD), 11 August 1995 (1995-08-11) abstract	1, 9, 14, 20, 25
	--- -/--	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *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
- *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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

26 September 2002

Date of mailing of the international search report

07/10/2002

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

Stirn, J-P

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/US 02/09932

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 6 186 798 B1 (FOLLINGSTAD MICHAEL J ET AL) 13 February 2001 (2001-02-13) cited in the application figure 1 -----	1,9,14, 20,25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/09932

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5552962	A	03-09-1996	NONE
WO 9637929	A	28-11-1996	AU 5737796 A WO 9637929 A1
JP 07211375	A	11-08-1995	NONE
US 6186798	B1	13-02-2001	AU 4081200 A BR 0009777 A EP 1173981 A1 TW 463419 B WO 0064194 A1 US 2002119681 A1 US 6345986 B1