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(11)

EP 1 152 493 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
06.03.2002 Bulletin 2002/10

(51) Int Cl.7: **H01R 12/16, G06K 7/00**

(43) Date of publication A2:
07.11.2001 Bulletin 2001/45

(21) Application number: **01107686.6**

(22) Date of filing: **28.03.2001**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **28.03.2000 JP 2000087870**

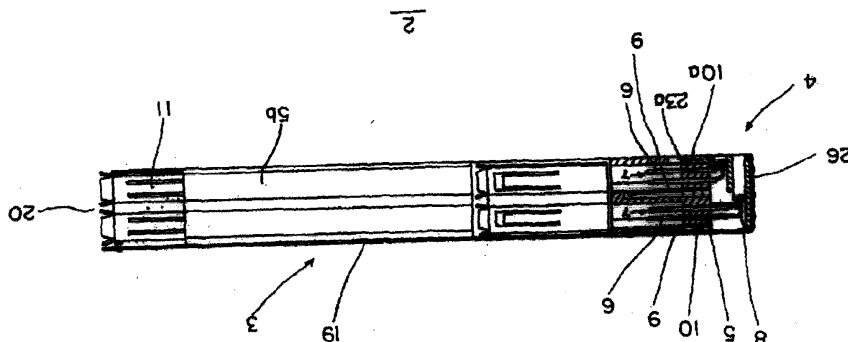
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(54) Card connector for receiving a PC card

(57) Disclosed is an improved card connector (2) for receiving at least one PC card (1). The card connector includes a card connector section (3) and a substrate connector section (4) wherein the card connector section (3) includes an insulating housing (5) having a lateral array (7) of pin terminals (6) to mate with corresponding receptacles of the card and grounding terminals (9) to contact the outer casing of the card. The insulating housing further includes a rearwardly extending alignment extension (28) having a leg portion (29) ex-

tending downwardly therefrom. The pin terminals include connections tails (8) arranged in a single row along the leg portion (29) of the alignment section (28). The substrate connector section (4) includes signal terminals (22) having engagement tails (22a) with a "C"-shaped contact section for receiving a respective connection tail of the pin terminal of the card connector section along with an adjacent leg portion (29) of the alignment section (28). This arrangement permits the significant reduction of the longitudinal size of the card connector.

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 01 10 7686

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	US 5 688 130 A (HUANG SAN-SHAN) 18 November 1997 (1997-11-18) * column 4, line 61 - column 5, line 20 * * column 6, line 26 - line 46; figures 2,3 *	1-7	H01R12/16 G06K7/00
Y	US 4 818 239 A (ERK KAYA) 4 April 1989 (1989-04-04) * column 4, line 37 - line 54; figure 3 *	1-7	
Y	PATENT ABSTRACTS OF JAPAN vol. 018, no. 494 (P-1800), 14 September 1994 (1994-09-14) & JP 06 162282 A (FUJITSU LTD), 10 June 1994 (1994-06-10) * abstract *	3,5-7	
P,X	EP 1 014 503 A (MOLEX INC) 28 June 2000 (2000-06-28) * the whole document *	1-8	
A	EP 0 863 584 A (MOLEX INC) 9 September 1998 (1998-09-09) * page 2, column 5, line 38 - line 63; figures 3-6 *	1-8	TECHNICAL FIELDS SEARCHED (Int.Cl.7) H01R G06K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 8 January 2002	Examiner Criqui, J-J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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08-01-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5688130	A	18-11-1997	NONE	
US 4818239	A	04-04-1989	US 4857017 A	15-08-1989
JP 06162282	A	10-06-1994	JP 2827767 B2	25-11-1998
EP 1014503	A	28-06-2000	CN 1264934 A	30-08-2000
			EP 1014503 A2	28-06-2000
			JP 2000285995 A	13-10-2000
			US 6247969 B1	19-06-2001
EP 0863584	A	09-09-1998	JP 10255881 A	25-09-1998
			CN 1197311 A	28-10-1998
			EP 0863584 A2	09-09-1998
			TW 419161 Y	11-01-2001
			US 5984698 A	16-11-1999