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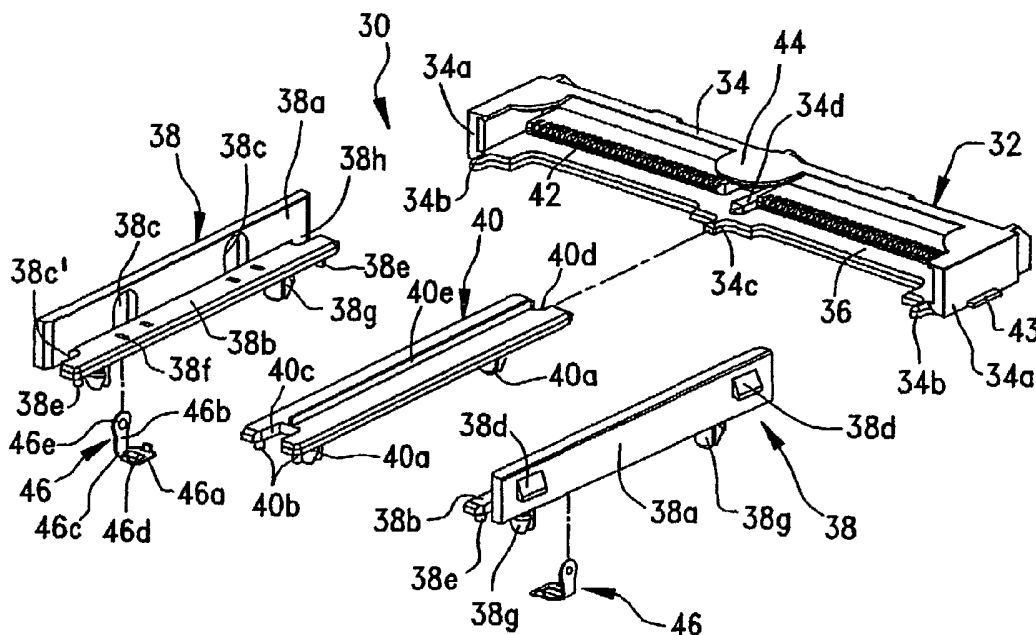
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[Continued on next page]

(54) Title: MEMORY CARD CONNECTOR



(57) Abstract: A memory card connector includes an insulative housing having a rear terminal-mounting section defining a receptacle for receiving a mating end of a memory card. At least one longitudinal side wall section extends forwardly from one end of the rear section. A plurality of conductive terminals are mounted on the rear-terminal-mounting section of the housing for engaging appropriate contacts at the mating end of the memory card when inserted into the receptacle. An enlarged flat suction surface is provided on the top of the insulative housing. The suction surface is of a sufficiently large size to accommodate an appropriate vacuum pick-up head for manipulating and placing the housing.

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

B. FIELDS SEARCHED

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 514 002 A (CHENG ET AL) 7 May 1996 (1996-05-07)	1-3, 12-14
Y	the whole document	1,5,6, 12,16,17
Y	EP 0 708 586 A (THOMAS & BETTS CORPORATION) 24 April 1996 (1996-04-24)	1-3, 12-14
Y	EP 0 061 779 A (FERATON ANSTALT) 6 October 1982 (1982-10-06)	1,5,6, 12,16,17
A	EP 0 716 483 A (MOLEX INCORPORATED) 12 June 1996 (1996-06-12)	1,12

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Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

 International Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5514002	A	07-05-1996	NONE	
EP 0708586	A	24-04-1996	GB 2294678 A CA 2161067 A1 DE 69510634 D1 DE 69510634 T2 EP 0708586 A1 ES 2135013 T3 JP 3062425 B2 JP 8230932 A SG 33555 A1	08-05-1996 21-04-1996 12-08-1999 02-12-1999 24-04-1996 16-10-1999 10-07-2000 10-09-1996 18-10-1996
EP 0061779	A	06-10-1982	DE 3122947 A1 DE 8117144 U1 EP 0061779 A2 JP 57166497 A NO 821079 A	07-10-1982 26-11-1981 06-10-1982 13-10-1982 01-10-1982
EP 0716483	A	12-06-1996	EP 0716483 A2 KR 146620 Y1 SG 49575 A1 US 5688133 A	12-06-1996 15-06-1999 15-06-1998 18-11-1997