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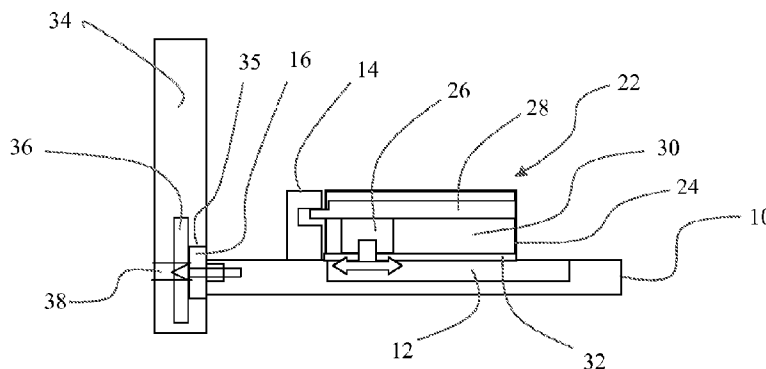


FIG. 2

(57) Abstract: A heat dissipation system for a miniaturized form factor card [22] allows a communications system lot mobile information devices contained in the card [22] to operate with high heat loads by employing a high conductivity pad [12] on the printed circuit board [10] of the mobile information device which contacts the case of the miniaturized form factor card [22]. Additionally, heat dissipation plugs [16] are integrated into the edge of the PCB [10] with emitting surfaces adjacent radiation holes [38] in the case [34] of the mobile information device adjacent the PCB [10]. Heat convection channels [46] through layers [48] of the PCB [10] allow transfer of heat from the pad [12] to other conductive layers [48] in the PCB [10]. High thermal conductivity packing in the miniaturized form factor card [22] conducts heat from the internal components [26] to the case [24] of the card [22] in contact with the high conductivity Placement of high heat generation components [26] within the card case [24] adjacent the contact interface with the high conductivity pad [12] is also employed for maximum heat dissipation. A high conductivity membrane [32] is provided on the card case [24] for increased conductivity from the case [24] into the pad [12] on the PCB [10].



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **H05K 7/20**(2006.01)
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USPC: Please See Continuation Sheet
 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. : Please See Continuation Sheet

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 practicable, 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.
A	US 6,965,515 (ALFORD et al) 15 November 2005 (15.11.2005), all Patent	1-9
A	US 6,011,690 (HUGHES et al) 04 January 2000 (04.01.2000), all Patent	1-9
A	US 6,891,726 (MONTROYA et al) 10 May 2005 (10.05.2005), all Patent	1-9
A	US 7,149,481 (OKAKO et al) 12 December 2006 (12.12.2006), all Patent	1-9
A	US 7,248,475 (PAYDAR et al) 24 July 2007 (24.07.2007), all Patent	1-9
A	US 6,961,245 (IKUTA et al) 01 November 2005 (01.11.2005), all Patent	1-9
A	US 6,031,718 (SUZUKI et al) 29 February 2000 (29.02.2000), all Patent	1-9

Further documents are listed in the continuation of Box C. See patent family annex.

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"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	"&"	document member of the same patent family

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