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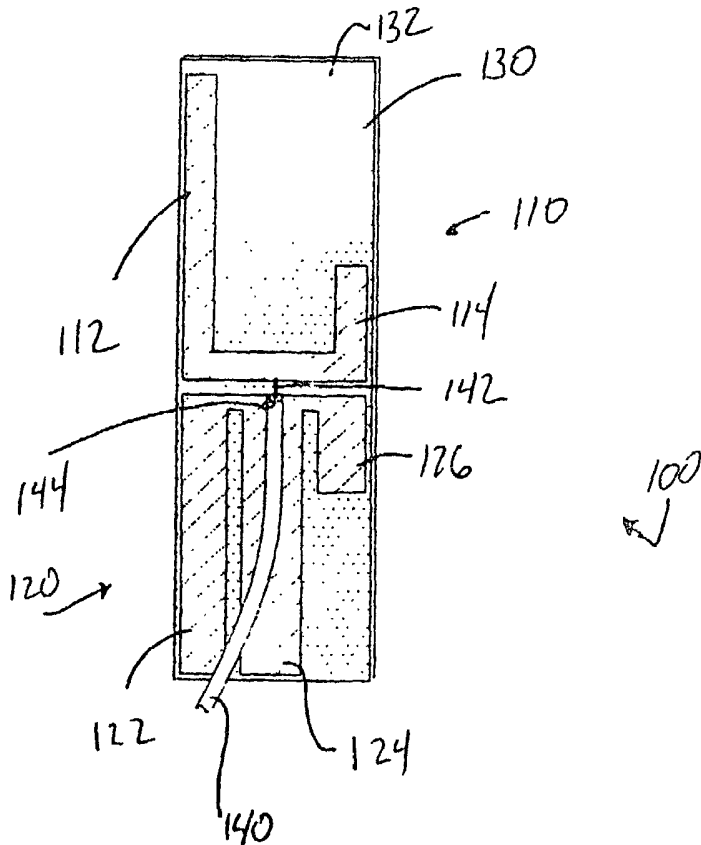
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[Continued on next page]

(54) Title: MULTI-BAND OMNI DIRECTIONAL ANTENNA



(57) Abstract: The present invention provides a printed circuit board omni directional antenna. The omni directional antenna includes power dissipation elements. The power dissipation elements reduces the impact the power feed to the radiating elements has on the omni directional antenna's radiation pattern.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/07360

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : H01Q 1/38 US CL : 343/7000MS, 702 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 343/7000MS, 702, 810 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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/0231138 A1 (WEINSTEIN) 18 December 2003 (18.12.2003) see entire document.	1-27, 29-32
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Y		28
Y	US 6,421,013 B1 (CHUNG) 16 July 2002 (16.07.2002) see col. 8, lines 12-21.	28
A	US 6,359,589 B1 (BAE) 19 March 2002 (19.03.2002) see entire document.	1-32
A, P	US 6,567,049 B1 (HUANG et al) 20 May 2003 (20.05.2003) see entire document.	1-32
A, E	US 6,741,219 B2 (SHOR) 25 May 2004 (25.05.2004) see entire document.	1-32
A, E	US 6,774,855 B2 (BATEMAN et al) 10 August 2004 (10.08.2004) see entire document.	1-32
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer <i>Jose Dees</i> Jose Dees Telephone No. 571-272-1850

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Continuation of B. FIELDS SEARCHED Item 3:

EAST: USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM\_TDB; 6 and (power adj dissipat\$3), 10 and substrate and feed and ground and (radiat\$3 adj element).