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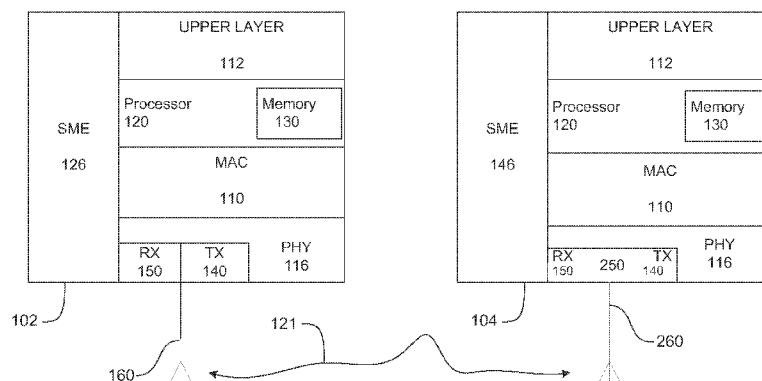
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(54) **Title:** MM-WAVE PHASED ARRAY ANTENNA AND SYSTEM INTEGRATION ON SEMI-FLEX PACKAGING

**FIG. 1**

(57) **Abstract:** Embodiments of wireless antenna array systems to achieve three-dimensional beam coverage are described herein. Disclosed is an integrated multiple phased antenna array on a flexible substrate with one RFIC. In this way the module can be molded onto the contour of a platform such as a notebook or a hub of the personal area network or local area network. The multiple phased array can be 3D bent in a compact size to fit into thin mobile platforms. Different array antennas or antennas radiate in different spherical directions with beam scanning capabilities while driven simultaneously by one RFIC chip.

A. CLASSIFICATION OF SUBJECT MATTER**H01Q 21/06(2006.01)i, H04B 7/04(2006.01)i**

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)

H01Q 21/06; H01Q 1/28; H01Q 1/38; H01Q 21/00; H01Q 21/08; H01P 11/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: antenna, substrate, flexible, IC, transmission line, PCB, transceiver

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006-0139210 A1 (ANDY STRVROS et al.) 29 June 2006 See the abstract; figure 2; paragraphs 27,28; and claims 1-20	1-21
X	US 2006-0187124 A1 (STEVEN J. GOLDBERG) 24 August 2006 See the abstract; figures 5-7; paragraphs 33-35; and claims 1-16	1-21
A	US 2003-0020666 A1 (PETER JOHN WRIGHT) 30 January 2003 See the abstract; figures 1,3; paragraphs 34-40; and claims 1-15	1-21
A	US 2010-0177011 A1 (DANIEL J. SEGO et al.) 15 July 2010 See the abstract; figures 1,3,4; paragraphs 20-22,27,28; and claims 1-15	1-21



Further documents are listed in the continuation of Box C.



See patent family annex.

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