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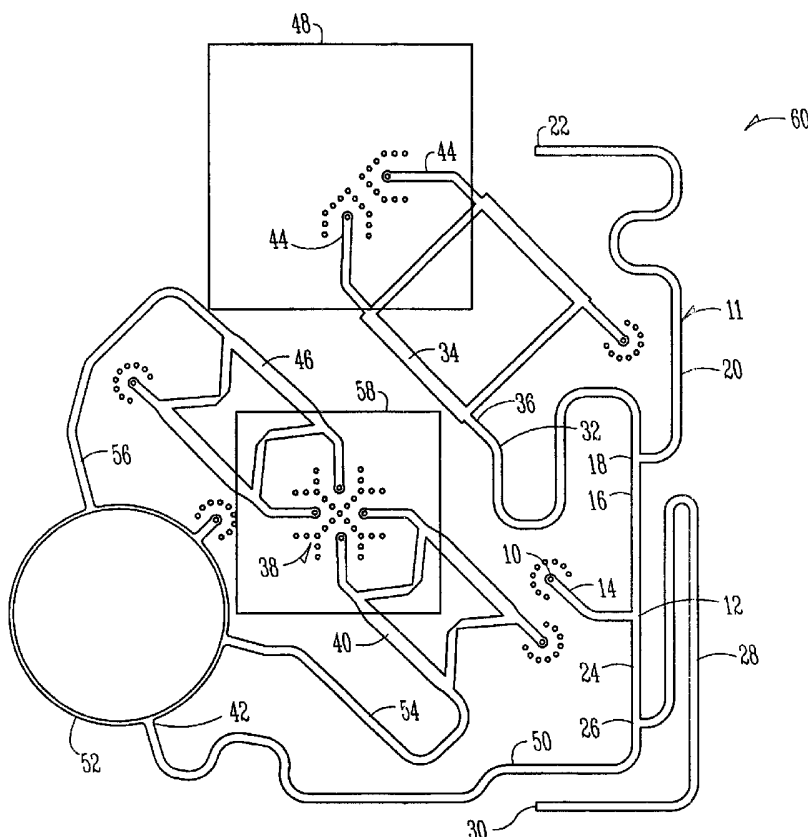
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(54) Title: ISOLATING SIGNAL DIVIDER/COMBINER AND METHOD OF COMBINING SIGNALS OF FIRST AND SECOND FREQUENCIES



(57) Abstract: A signal divider/combiner (11) and method combines first and second frequency signals received by microstrip patch antennas (58, 48). A first transmission line stub (28) blocks the second frequency signals on the first signal receiving path, and a second transmission line stub (20) blocks the first frequency signals on the second signal receiving path providing increased signal levels at a receiver input (10). In one embodiment, the transmission line stubs are open-circuit stubs and are positioned a quarter-wavelength from a combining junction (12) formed from stripline transmission lines (14, 32, 50). The transmission line stubs (28, 20) also reduce radiation of the first frequency signal by the second antenna as well as radiation of the second frequency signal by the first antenna. In one embodiment, the first and second frequency signals are the L1 and L2 signals provided by the Global Positioning System.

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European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01P1/213 H01P5/22

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)

IPC 7 H01P

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 practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 978 895 A (CIT ALCATEL) 9 February 2000 (2000-02-09) the whole document	1,5
Y		2-4,6,9, 10
A		7,8
Y	FR 980 157 A (RCA CORP) 9 May 1951 (1951-05-09) the whole document	2-4,9,10
Y	FR 2 531 273 A (THOMSON CSF) 3 February 1984 (1984-02-03) abstract; figures 1,2	6
A	FR 2 751 138 A (THOMSON CSF) 16 January 1998 (1998-01-16) the whole document	7,8

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Information on patent family members

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