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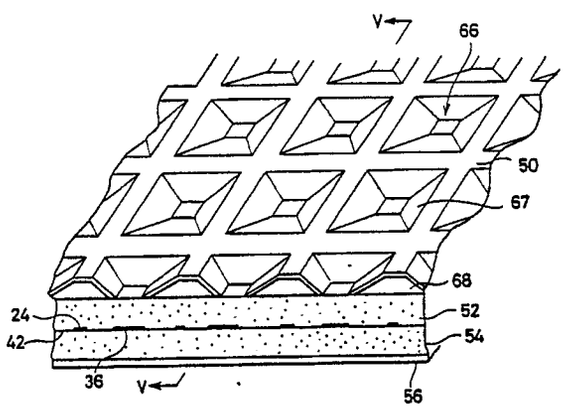
(54) Planar antenna.

(57) A planar antenna for receiving satellite broadcasting or the like. The antenna includes a dielectric substrate (42) having a first and a second surfaces; a first conductive plate (50) arranged to face the first surface with a predetermined distance therebetween and having an arrangement of a plurality of openings (66) which allow passage of radio waves therethrough to reach the dielectric substrate (42); a second conductive plate (56) arranged to face the second surface with a predetermined distance therebetween; an arrangement of a plurality of radiating elements (36) each of which is formed on the first surface to have a smaller area than that of one of the openings (66), associated with one of the openings (66), and together with the second conductive plate (56), forming an unbalanced planar circuit resonator which resonates to the radio waves; a signal deriving network (24) formed on the first surface for deriving signals that have been induced by the radio waves in each of the radiating elements (36) to the outside; and a waveguide member (67) provided in each of the openings (66) for guiding the radio waves incident on the opening to the associated radiating element (36) and concentrating the same thereon.

FIG. 6



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EUROPEAN SEARCH REPORT

Application Number

EP 90 30 1627

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X,A	EP-A-0 108 463 (L.E.P.) * page 4, lines 14 - 26; figure 1 *	1,15,16, 2-5	H 01 Q 21/06 H 01 Q 21/00
A	EP-A-0 252 779 (RAMMOS) * abstract; claims 23, 24; figures 1, 2, 10 *	1-3,9-16	
A	EP-A-0 239 069 (ALCATEL THOMSON FAISCEAUX HERTZIENS) * abstract; figures 2-6 *	1,15,16	
A	EP-A-0 228 743 (RTC-COMPELEC) * figure 1 *	1,15,16	
P,A	EP-A-0 312 989 (SONY) * abstract; figures 2, 3, 11, 13A, 18 *	1,9-14	
P,A	WO-A-8 909 501 (FORTEL TECHNOLOGY) * abstract; figures 1, 7-10 *	1-8	
D,A	IEEE TRANSACTIONS ON BROADCASTING. vol. 34, no. 4, December 1988, NEW YORK US pages 457 - 464; ITO et.al.: "PLANAR ANTENNAS FOR SATELLITE RECEPTION" * page 461; figures 9-11 *	1,15,16	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

H 01 Q

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	09 November 90	ANGRABEIT F.F.K.

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
Y: particularly relevant if combined with another document of the same catagory
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