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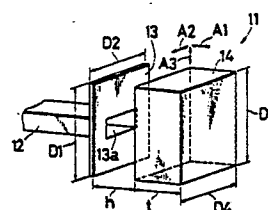
54 Dielectric or magnetic medium loaded antenna.

280 379 A3 ⁵⁷ A loaded antenna (11) comprises a wave source (12) of an arbitrary polarized wave, a reflector (13) disposed near the wave source (12), with the surface opposite to the wave source (12) limited in area, and a dielectric (14) disposed on the opposite side of the reflector across the wave source (12), at least with the surface opposite to the reflector (13) formed parallel to the reflector (13). -

By properly selecting the mutual interval among the dielectric (14), wave source (12) and reflector (13), the dimension and the dielectric constant of the dielectric (14), the vibration component in the running direction of the wave within the dielectric (14),

the vibration component in the direction vertical to the running direction, and the vibration component between the reflector and dielectric are superposed, so that the electromagnetic field distribution in the vicinity of the dielectric (14) is made uniform. Thereby, high gain and high efficiency are realized, and the structure may be notably reduced in size.

Fig. 4





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.4)
X	EP-A-0 131 328 (PHILIPS) * Claims 1-7; fig. 1,2 *	1	H 01 Q 19/09
A	---	2,3	
Y	IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. AP-30, no. 2, March 1982, pages 314-318, IEEE, New York, US; I.J. BAHL et al.: "Design of Microstrip Antennas Covered with a Dielectric Layer" * Pages 314-316; figures 1,2,7 *	4	
Y	DE-A-2 204 001 (ROHDE & SCHWARZ) * Claims 1-4; figures 1-4 *	4	
A	US-A-4 636 798 (SEAVEY) * The whole document *	1-3	
A	US-A-3 518 683 (JONES) * Column 2, line 56 - column 4, line 19; figures 1,2 *	1-3	
A	IEE PROCEEDINGS-H, part H, vol. 133, no. 6, December 1986, pages 474-482, Stevenage, Herts, GB; J.R. JAMES et al.: "Microstrip elements and arrays with spherical dielectric overlays" * Page 474, figure 1 *	4-9	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18-01-1990	Examiner 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 category A: technological background O: non-written disclosure P: intermediate document		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document	