

Title (en)
MULTI-BEAM ANTENNA

Title (de)
MEHRSTRAHLANTENNE

Title (fr)
ANTENNE MULTIFAISCEAU

Publication
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Application
EP 05730876 A 20050328

Priority
• US 2005010596 W 20050328
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Abstract (en)
[origin: WO2005094352A2] A plurality of antenna elements (16, 16.1, 16.2, 16.3) on a dielectric substrate (12) are adapted to launch or receive electromagnetic waves (21) in or from a direction substantially away from either a convex (14) or concave (134) edge (142) of the dielectric substrate (12), wherein at least two of the antenna elements (16, 16.1, 16.2, 16.3) operate in different directions (58). Slotlines (26) of tapered-slot endfire antennas (16.1) in a first conductive layer (18.1) of a first side (20.1) of the dielectric substrate (12) are coupled to microstrip lines (34) of a second conductive layer (18.2) on the second side (20.2) of the dielectric substrate (12). A bi-conical reflector (64, 140), conformal cylindrical dielectric lens (66), or planar lens (68) improves the H-plane radiation pattern. Dipole (16.2) or Yagi-Uda (16.3) antenna elements on the conductive layer (18.1) of the dielectric substrate (12) can be used in cooperation with associated reflective elements (96, 98, 108), either alone or in combination with a corner-reflector (100) of conductive plates (102) attached to the conductive layers (18.1, 18.2) proximate to the endfire antenna elements (16, 16.2, 16.3).

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