

Title (en)
DIRECTIVE THIN DOUBLE ANTENNA FOR MICROWAVES

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EP 0110479 B1 19880518 (FR)

Application
EP 83201682 A 19831129

Priority
FR 8220290 A 19821203

Abstract (en)
[origin: US4591865A] The antenna is designed to radiate decimetric or centimetric waves according to an acute angle θ_0 capable of varying by several dozens of degrees. It has the shape of a rectangular parallelepiped having a thickness e , a length L and a width l_t metal-plated over almost its entire surface and containing a material having a dielectric constant ϵ_r . According to the invention only a band having a fixed width d has not been metal-plated, which band extends substantially in the center over a large face of the antenna, d being equal to several times e , the second large metal-plate face constituting the ground plane. A micro-strip line (26) which crosses the band and contains the antenna feedpoint (31) electrically interconnects the two metal-plated semi-surfaces (28, 29) defined by the non-plated band. The thickness e is of the order of that of a printed circuit board, the length L ($L=N+\lambda/2$) is more than twice the wavelength λ of the wave to be transmitted and the width l_t ($l_t=l_1+l_2$) is between 0.2 and 0.6λ .

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