

Title (en)
DUAL END RESONANT SLOT ARRAY ANTENNA FEED

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EP 0209220 B1 19930915 (EN)

Application
EP 86303580 A 19860512

Priority
US 73600985 A 19850520

Abstract (en)
[origin: EP0209220A1] An antenna with a dual end resonant slot array feed improves the bandwidth performance of a resonant slotted waveguide planar array antenna. The dual end resonant slot array feed includes a tee junction (28) which may be either an E-plane or H-plane, two waveguide sections (32, 34), and two E-plane waveguide bends (36, 38). The two waveguide sections (32, 34) are formed by a septum (40) mounted in a slotted waveguide (42) for separating the input tee junction (28), from the slots (44) of the slotted waveguide. The ends of the septum (40) coacting with the ends of the waveguide to form the E-plane waveguide bends (36, 38). Thus, resonant feeding of the series-slot waveguides (50) is achieved by the opposing traveling waves thereby eliminating the need to use resonant short circuits, cavities, or folded short circuits. Further direct coupling to the series slots (44) directly adjacent to the E- or H-plane feed point (50) is avoided by introducing the septum (40) between the feed point (50) and the row of slots (44).

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H01Q 21/00

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CPC (source: EP)
H01Q 21/0043 (2013.01)

Citation (examination)
GB 813934 A 19590527 - MARCONI WIRELESS TELEGRAPH CO

Cited by
CN106356642A; GB2238914A; GB2238914B; CN112072256A; EP2093835A4; WO9900871A1; US8134514B2

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