

Title (en)

Slotted wave guide radiator with non-inclined slots excited by conductive printed patterns.

Title (de)

Geschlitzter Hohlleiterstrahler mit quer verlaufenden Schlitzten, die von gedruckten, leitenden Mustern erregt werden.

Title (fr)

Guide à fentes rayonnantes non inclinées à excitation par des motifs conducteurs imprimés rayonnants.

Publication

EP 0439970 B1 19941228 (FR)

Application

EP 90403194 A 19901109

Priority

FR 8914896 A 19891114

Abstract (en)

[origin: JPH03173205A] PURPOSE: To obtain a waveguide having non-inclined radiation slots by providing slots of about half of operating wavelengths on a narrow wall perpendicularly to a waveguide axis and using flat radiation conductive patches near the slots on the narrow wall. CONSTITUTION: Radiation slots 2 and 3 orthogonally cross to the axis of a waveguide 1. Patches 5 and 7 are provided on a dielectric plate 4 fixed to a narrow wall and are associated with transmission lines 6 and 8 crossing the slots 6 and 8 respectively. These sets are arranged at $\lambda_g/2$ pitch, when the operation wavelength of the waveguide 1 is λ_g . The patches 5 and 7 combine electromagnetic energy that propagates through the waveguide 1 to an antenna. The patches do not face the slots, and leads 6 and 8 extend only $\lambda_g/4$ from their related slot. When the slots are alternately excited, energy can be taken out alternately with a π phase difference from both sides of a corresponding patch. The combined value of a waveguide propagation wave and a patch is decided by the measurements of the patch or the connecting point of the patch and a lead.

IPC 1-7

H01Q 21/00

IPC 8 full level

H01Q 21/08 (2006.01); **H01Q 13/10** (2006.01); **H01Q 13/18** (2006.01); **H01Q 13/22** (2006.01); **H01Q 21/00** (2006.01)

CPC (source: EP US)

H01Q 13/10 (2013.01 - EP US); **H01Q 21/0043** (2013.01 - EP US)

Designated contracting state (EPC)

DE DK ES GB IT SE

DOCDB simple family (publication)

FR 2654555 A1 19910517; **FR 2654555 B1 19920619**; CA 2029329 A1 19910515; DE 69015608 D1 19950209; DE 69015608 T2 19950511; EP 0439970 A1 19910807; EP 0439970 B1 19941228; JP H03173205 A 19910726; US 5170174 A 19921208

DOCDB simple family (application)

FR 8914896 A 19891114; CA 2029329 A 19901105; DE 69015608 T 19901109; EP 90403194 A 19901109; JP 30229490 A 19901107; US 60345590 A 19901025