Title (en)

ARRAY BEAM POSITION CONTROL USING COMPOUND SLOTS

Publication

EP 0288497 B1 19920805 (EN)

Application

EP 87906535 A 19870921

Priority

US 91993086 A 19861017

Abstract (en)

[origin: WO8802934A1] A waveguide slotted array, employing compound slots in a waveguide broad wall. The phase of the voltage excited in the slot is controlled by the slot offset and angle of inclination relative to the axis. Utilization of the additional phase control provided by the compound slots allows the beam of a travelling wave slot array to be placed far from broadside, without the need to operate the array at frequencies so close to the waveguide cutoff frequency that there is unacceptable frequency sensitivity. The beam may be placed at any angle independently of which end of the array contains the input and which end the load.

IPC 1-7

H01Q 1/28; H01Q 13/10; H01Q 21/00

IPC 8 full level

H01Q 21/08 (2006.01); **H01Q 1/28** (2006.01); **H01Q 13/10** (2006.01); **H01Q 13/22** (2006.01); **H01Q 21/00** (2006.01)

IPC 8 main group level

H01Q (2006.01)

CPC (source: EP)

H01Q 1/281 (2013.01); **H01Q 21/0043** (2013.01)

Citation (examination)

- IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, volume AP-26, no. 2, March 1978, IEEE, US; R.S. ELLIOTT et al.: "The design of small slot arrays", pages 214-219
- IRE TRANSACTIONS ON ANTANNAS AND PROPAGATION, volume AP-8, July 1960; B.J. MAXUM: "Resonant slots with independent control of amplitude and phase", pages 384-389

Designated contracting state (EPC)

CH DE FR GB LI SE

DOCDB simple family (publication)

WO 8802934 A1 19880421; DE 3780949 D1 19920910; DE 3780949 T2 19930204; EP 0288497 A1 19881102; EP 0288497 B1 19920805; IL 83876 A 19910718; JP H01501194 A 19890420; JP H0552081 B2 19930804; NO 171436 B 19921130; NO 171436 C 19930310; NO 882545 D0 19880609; NO 882545 L 19880609

DOCDB simple family (application)

US 8702380 W 19870921; DE 3780949 T 19870921; EP 87906535 A 19870921; IL 8387687 A 19870911; JP 50599087 A 19870921; NO 882545 A 19880609