

Title (en)

Electrically controlled aerial array with reduced side lobes.

Title (de)

Elektronisch gesteuerte Gruppenantenne mit reduzierten Nebenkeulen.

Title (fr)

Antenne à balayage électronique aux lobes secondaires réduits.

Publication

EP 0159301 A1 19851023 (EN)

Application

EP 85850105 A 19850326

Priority

SE 8402140 A 19840417

Abstract (en)

An electrically controlled aerial array for microwave signals comprises a plurality of aerial elements in the form of wave conductors (V1, V2,...) provided with broadside slits or slots (S11, S12, ... S21, S22,...). Each of the conductors (V1, V2, ...) is provided on its inside with a ridge (R1, R2...) of given configuration, and for each wave conductor the ridge has a given dimension such that different wave conductor wavelengths are obtained. Similarly, the mutual spacing (d1, d2, ...) of the broadside slits is different for different wave conductors. The positions of the grid lobes in the radiation diagram of the aerial array are thus upset and a reduction of the side lobe level may be attained.

IPC 1-7

H01Q 3/34; H01Q 13/10

IPC 8 full level

H01Q 21/00 (2006.01); **H01Q 21/22** (2006.01)

CPC (source: EP)

H01Q 21/005 (2013.01); **H01Q 21/22** (2013.01)

Citation (search report)

- US 4423421 A 19831227 - PEELER GEORGE D M [US], et al
- US 3193830 A 19650706 - PROVENCHER JOSEPH H
- US 3524189 A 19700811 - JONES HOWARD S JR

Cited by

EP0501224A1; US4899163A; DE4201933A1; US4821044A; US4788552A; DE3915048A1; US7696945B2; EP3204987A4; CN109716589A; EP3567677A4; WO2016057539A1; US10263331B2; US10903582B2; US11450955B2

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