

Title (en)
Surveillance radar antenna in flat configuration

Title (de)
Rundsuchradarantenne in Flachbauweise

Title (fr)
Antenne de radar de surveillance à configuration plate

Publication
EP 0570863 B1 19990414 (DE)

Application
EP 93107897 A 19930514

Priority
DE 4217091 A 19920522

Abstract (en)
[origin: EP0570863A2] In order to hold a multiplicity of waveguide radiators (1) which are arranged in rows and columns and are preferably provided with a funnel-shaped opening, of the antenna which rotates about a vertical axis, a supporting plate (2) is provided with radiator (retaining) openings (3). In each case one polarisation changeover device (6), having a 0 DEG /90 DEG phase shifter (7), is arranged on the rear side of the radiators, which are provided with two injection devices (4, 5) which are spatially offset through 90 DEG , so that it is possible to switch over between linear polarisation and circular polarisation. One vertical distributor (10) is in each case arranged behind the polarisation changeover devices (6) of all the radiators in one column in each case, in order to supply them, and a horizontal distributor (11) is in turn arranged behind the vertical distributors, in order to supply them. The surveillance radar antenna according to the invention can be used, for example, in the X band instead of a conventional reflector antenna, it then being possible to achieve a considerably lower sidelobe level and polarisation which can be changed over more exactly, as well as greater mobility as a result of a smaller volume. <IMAGE>

IPC 1-7
H01Q 21/24; **H01Q 21/06**; **H01Q 13/02**; **H01Q 21/28**

IPC 8 full level
H01Q 13/02 (2006.01); **H01Q 21/06** (2006.01); **H01Q 21/24** (2006.01); **H01Q 21/28** (2006.01)

CPC (source: EP)
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Cited by
DE19608622A1; EP2083479A1; CN111463573A; US6034647A; AU718880B2; US7948443B2; US10128567B2; WO9936986A3; WO2015169469A1

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