

Title (en)  
SURVEILLANCE RADAR AERIAL SUITED TO ELEVATION MEASUREMENT

Publication  
**EP 0090400 B1 19861203 (DE)**

Application  
**EP 83103074 A 19830328**

Priority  
DE 3211707 A 19820330

Abstract (en)  
[origin: EP0090400A1] 1. A surveillance radar antenna with elevation measurement, employing a cylindrical parabolic reflector which is irradiated by a linear source, wherein azimuthal scanning is effected by mechanical rotation and elevational scanning is effected by an electronic sweep of the beam transmitted from the linear source, which extends parallel to the cylindrical axis of the reflector and is formed by a row of radiators which together form the radiation aperture of a waveguide primary radiator, wherein the radiation of individual radiators for concentration and required elevational beam deflection is effected by means of electronically-controllable phase shifters, characterised in that the waveguide primary radiator is a so-called flat parabolic antenna (pillbox antenna) (2), that there are arranged in the region of the focal line of the flat parabolic antenna (2) a plurality of small exciters (5 to 10) above one another, of which only one (5) is operated during transmission and only two (6-10) are respectively operated at any instant during reception, in pairs, and that the two radiation lobes respectively produced by the exciters operated during reception which are arranged one above the other, are adjusted such that they mutually overlap and are essentially commonly embraced by the lobe produced by the exciter used for transmission.

IPC 1-7  
**H01Q 19/17**; **H01Q 25/00**

IPC 8 full level  
**H01Q 3/46** (2006.01); **H01Q 19/20** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP)  
**H01Q 3/46** (2013.01); **H01Q 19/20** (2013.01); **H01Q 25/007** (2013.01)

Cited by  
WO0188564A1; WO0118905A1

Designated contracting state (EPC)  
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**EP 0090400 A1 19831005**; **EP 0090400 B1 19861203**; DE 3211707 A1 19831020; DE 3211707 C2 19840712

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