

Title (en)
METHOD AND ANTIJAMMING DEVICE FOR A RADAR WITH AN ANTENNA FOR ELECTRONIC SCANNING, AND RADAR COMPRISING SUCH A DEVICE

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Application
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Priority
FR 8004836 A 19800304

Abstract (en)
[origin: EP0035439A1] 1. Antijamming process for deviation measurement meter radar associated to an electronic scanning plane antenna (1) comprising, a network, having a symmetry center (o), elementary sources with their address dephaser-attenuator i, j with respect to two orthogonal directions OX and OY of the antenna plane, consisting in making a calculation intended for the determination of an equiphase plane Z corresponding to the target direction vector (OP) of the antenna, the said antenna emitting signals at wavelength λ and receiving in a direction (cation) with respect to its axis of symmetry (OZ) the signals emitted by a jamming source (B_i), characterized in that the procedure occurs according to the following steps : - an antenna scanning allowing the radar deviation measurement receiver (66) to log the directions of the different jamming sources (B_i) ; - calculation of a periodic phase disturbance law (3) in the equiphase plane 2 corresponding to the target direction vector OP of the antenna of spatial period $\lambda/\sin(\theta)$ defined parallelwise to the plane intersection (λ) of the antenna and of the plane OZ, $O B_i$ and of which the equiphase points form in the plane of the antenna (1) lines that are approximately straight and parallel between them to the directions vector OX and vector OY ; - calculation and selection of the number of address dephasers-attenuators i, j and modification of the phase and/or the amplitude by these dephaser-attenuator in order to obtain this disturbance law, determining a gain reduction of the antenna in the direction (cation) of the jammer involved, for the target direction vector OP of the antenna.

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G01S 7/36; H01Q 3/26

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H01Q 3/26 (2006.01)

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H01Q 3/2617 (2013.01)

Citation (examination)

- US 4189733 A 19800219 - MALM ROBERT [US]
- US 3453623 A 19690701 - BLACKBAND WILLIAM THOMAS, et al
- EP 0014650 A1 19800820 - RADANT ETUDES [FR]
- US 3964065 A 19760615 - ROBERTS EUGENE L, et al

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