

Title (en)

Common antenna for primary and secondary radar.

Title (de)

Gemeinsame Antenne für Primär- und Sekundärradar.

Title (fr)

Antenne commune pour radar primaire et radar secondaire.

Publication

**EP 0013240 A1 19800709 (FR)**

Application

**EP 79401063 A 19791221**

Priority

FR 7836484 A 19781227

Abstract (en)

[origin: US4284991A] A bifunctional antenna of a primary/secondary radar system comprises a reflector having a concave front surface formed with a row of slots along a horizontal generatrix, the slots lying in front of respective cavities excitable to radiate interrogation signals in a directive sum pattern and supplemental radiation in a differential control pattern designed to blank minor lobes of the interrogation pattern. Some of the cavities and slots are symmetrically duplicated on a dielectric cap covering the convex rear surface of the reflector. The reflector and its cap form a closed shell of dielectric material, specifically a glass mat impregnated with epoxy resin, overlain at the front by a fiber-glass fabric incorporating orthogonally intersecting insulated copper wires. The fabric also lines the inner walls of each cavity which is filled with dielectric material; its radiating slot is spanned only by horizontal wires paralleling the plane of polarization of target-seeking radiation from a source illuminating the reflector.

Abstract (fr)

Antenne commune pour radar primaire et radar secondaire, dont la fonction radar secondaire est intégrée dans le réflecteur unique (1). La fonction radar secondaire est réalisée à partir d'un réseau (2) linéaire de fentes (21) réparties le long d'une directrice passant par le centre de phase du réflecteur. La fonction radar secondaire comporte une voie contrôle réalisée à partir d'un certain nombre de fentes du réseau. Application aux radars primaires et secondaires.

IPC 1-7

**H01Q 21/28**; **H01Q 25/00**

IPC 8 full level

**H01Q 13/10** (2006.01); **G01S 7/02** (2006.01); **G01S 13/87** (2006.01); **H01Q 13/18** (2006.01); **H01Q 15/14** (2006.01); **H01Q 19/17** (2006.01); **H01Q 21/22** (2006.01); **H01Q 21/28** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP US)

**H01Q 21/28** (2013.01 - EP US); **H01Q 25/00** (2013.01 - EP US); **H01Q 25/001** (2013.01 - EP US)

Citation (search report)

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- CH 328923 A 19580331 - STANDARD TELEPHON & RADIO AG [CH]
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DOCDB simple family (application)

**EP 79401063 A 19791221**; AT 79401063 T 19791221; DE 2963910 T 19791221; DK 549779 A 19791221; FR 7836484 A 19781227; JP 17018279 A 19791226; NO 794240 A 19791221; US 10573379 A 19791220