

Title (en)  
COMMON ANTENNA FOR PRIMARY AND SECONDARY RADAR

Publication  
**EP 0013240 B1 19821020 (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.

IPC 1-7  
**H01Q 21/28**; **H01Q 25/00**

IPC 8 full level  
**G01S 7/02** (2006.01); **G01S 13/87** (2006.01); **H01Q 13/10** (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)

Cited by  
EP0053512A1; FR2510265A1; EP0033676A1; EP0021193A1; EP0237110A1; EP0057538A3

Designated contracting state (EPC)  
AT BE CH DE GB IT LU NL SE

DOCDB simple family (publication)  
**EP 0013240 A1 19800709**; **EP 0013240 B1 19821020**; AT E1686 T1 19821115; DE 2963910 D1 19821125; DK 549779 A 19800628; FR 2445629 A1 19800725; FR 2445629 B1 19820618; JP S5590876 A 19800709; JP S6034070 B2 19850806; NO 794240 L 19800630; US 4284991 A 19810818

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