

Title (en)  
ANTENNA ARRANGEMENT FOR MASKING THE SIDE LOBE PATTERN OF A HIGHLY DIRECTIONAL MAIN ANTENNA AND ITS USE WITH A PANORAMIC SEARCH RADAR ANTENNA

Publication  
**EP 0022991 B1 19830622 (DE)**

Application  
**EP 80103989 A 19800710**

Priority  
DE 2928370 A 19790713

Abstract (en)  
[origin: EP0022991A1] 1. An antenna arrangement for covering the radiation levels of all the side lobes of a sharp focussing main antenna, consisting of a dipole primary radiator (1) or the like, and of a reflector (2) there behind whose reflection contour is formed continuously linear in a first plane, and in a second plane, orthogonal to the first, consists of linear sections (5 to 11'; 5' to 11') which follow one another in an inconstant polygonal formation, symmetrical on both sides of the main radiation axis (3) of the dipole (1) and arranged at obtuse angles to the main radiation direction, characterised in that commencing from this main radiation axis (3) towards a side the sections possess in turn approximately the following reference angles to the main radiation direction and approximately the following lengths relative to the operating wavelength : first section : ( 5, 5') : 116 degrees ;  $\lambda/8$  second section : ( 6, 6') : 173 degrees ;  $\lambda/8$  third section : ( 7, 7') : 153 degrees ;  $\lambda/8$  fourth section : ( 8, 8') : 110 degrees ;  $\lambda/8$  fifth section : ( 9, 9') : 97 degrees ;  $\lambda/8$  sixth section : (10, 10') : 92 degrees ;  $\lambda/6$  seventh section : (11, 11') : 142 degrees ;  $5/8 \cdot \lambda$ , where the central continuously linear reflection contour (12) forms an axis of symmetry for the reflector and is at right angles to the main radiation axis (3) of the dipole (1).

IPC 1-7  
**H01Q 19/10**

IPC 8 full level  
**H01Q 19/10** (2006.01)

CPC (source: EP)  
**H01Q 19/10** (2013.01)

Citation (examination)  
GB 1506890 A 19780412 - THOMSON CSF

Cited by  
EP1178568A4; US7489282B2; US6741220B2; WO03043128A1; US10063297B1; US10069548B2; US10211895B2; US10516451B2; US11108443B2; US12015457B2

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