

Title (en)  
COMPACT MULTI-FREQUENCY FEED HORN, RADIATING SOURCE AND ANTENNA COMPRISING SUCH A FEED HORN

Title (de)  
KOMPAKTER MULTIFREQUENZ-SPEISEHORNSTRAHLER, STRAHLUNGSQUELLE UND ANTENNE, DIE EINEN SOLCHEN SPEISEHORNSTRAHLER UMFASST

Title (fr)  
CORNET RAYONNANT COMPACT MULTIFRÉQUENCES, SOURCE RAYONNANTE ET ANTENNE COMPORTANT UN TEL CORNET RAYONNANT

Publication  
**EP 3154128 B1 20180425 (FR)**

Application  
**EP 16192643 A 20161006**

Priority  
FR 1502126 A 20151009

Abstract (en)  
[origin: US2017104271A1] A horn antenna, able to propagate signals in a spectrum of frequencies B1, . . . , Bi, . . . , BN, B1 being the lowest frequency band, Bi being at least one intermediate frequency band and BN the highest frequency band, comprises a side wall axisymmetric about a longitudinal axis Z, an axial access orifice, termed throat, and a radiating aperture, the side wall comprising annular corrugations. The horn antenna further comprises four coaxial probes diametrically opposite in pairs. The four probes are inserted into a specific, dedicated corrugation, the four coaxial probes being spaced apart at equal angles in a plane perpendicular to the longitudinal axis Z and entering the longitudinal axial conduit of the horn antenna. Each coaxial probe is designed for the propagation of signals in the lowest frequency band B1 of the spectrum.

IPC 8 full level  
**H01Q 1/48** (2006.01); **H01Q 5/35** (2015.01); **H01Q 5/55** (2015.01); **H01Q 13/02** (2006.01); **H01Q 15/14** (2006.01)

CPC (source: EP US)  
**H01Q 1/48** (2013.01 - US); **H01Q 5/35** (2015.01 - EP US); **H01Q 5/55** (2015.01 - EP US); **H01Q 13/0208** (2013.01 - EP US);  
**H01Q 15/14** (2013.01 - US)

Cited by  
CN108039583A

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3154128 A1 20170412; EP 3154128 B1 20180425**; ES 2674167 T3 20180627; FR 3042317 A1 20170414; FR 3042317 B1 20171201;  
US 2017104271 A1 20170413

DOCDB simple family (application)  
**EP 16192643 A 20161006**; ES 16192643 T 20161006; FR 1502126 A 20151009; US 201615289346 A 20161010