

Title (en)  
Dual mode feed horn or horn antenna for two or more frequency bands.

Title (de)  
Zweimoden Hornstrahler für zwei oder mehr Wellenbereiche.

Title (fr)  
Antenne cornet à deux modes fonctionnant sur deux bandes de fréquences.

Publication  
**EP 0136818 A1 19850410 (EN)**

Application  
**EP 84305895 A 19840829**

Priority  
US 52937583 A 19830906

Abstract (en)  
A microwave feed horn or horn antenna (11,12) for at least two frequency bands comprises a conical waveguide section (42) whose aperture at the large end has an inside diameter (D1) approximately equal to one wavelength in the lower frequency band so as to produce substantially equal power patterns in the E and H planes in the lower frequency band. The slope (  $\beta$  ) of the inside wall of said conical section (42) is selected to cancel the electric field at the aperture of the horn in the higher frequency band, thereby producing substantially equal power patterns in the E and H planes in the higher frequency band. A pair of straight waveguide sections (40,41) connects the opposite ends of the conical waveguide section (42).

IPC 1-7  
**H01Q 25/04**; **H01Q 13/02**

IPC 8 full level  
**H01Q 17/00** (2006.01); **H01Q 19/02** (2006.01); **H01Q 19/19** (2006.01)

CPC (source: EP)  
**H01Q 17/001** (2013.01); **H01Q 19/026** (2013.01); **H01Q 19/19** (2013.01)

Citation (search report)

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