

Title (en)
ANTENNA SYSTEM FOR BROADBAND SATELLITE COMMUNICATION IN THE GHZ FREQUENCY RANGE, COMPRISING DIELECTRICALLY FILLED HORN ANTENNAS

Title (de)
ANTENNENSYSTEM ZUR BREITBANDIGEN SATELLITENKOMMUNIKATION IM GHZ FREQUENZBEREICH MIT DIELEKTRISCH GEFÜLLTEN HORNSTRAHLERN

Title (fr)
SYSTÈME D'ANTENNES POUR COMMUNICATION SATELLITE LARGE BANDE, DOTÉ DE CORNETS D'ÉMISSION DIÉLECTRIQUEMENT REMPLIS

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Application
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Priority

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Abstract (en)
[origin: WO2014005691A1] The invention relates to an antenna system consisting of at least four horn antennas which support two orthogonal linear polarizations and have constrictions in both polarization planes. The fact that the horn antennas are constricted in the two polarization planes by symmetrical geometrical constrictions allows for a substantial increase in the bandwidth of the horn antennas, thus making it possible to service also wide transmission and reception bands or transmission and reception bands with widely spaced-apart frequencies, such as the Ka band. In order to be able to optimally operate the individual ridged horn antennas also in widely spread-apart service frequency bands, advantageously both the horn antennas and the constrictions are step-shaped. A suitable selection of the height and width of the steps of the horn antenna and the steps of the constrictions allows the horn antennas to be optimally adjusted to the service frequency bands according to the impedance.

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Citation (search report)
See references of WO 2014005693A1

Citation (examination)

- EP 1946408 A2 20080723 - STARLING ADVANCED COMM LTD [IL]
- US 4811028 A 19890307 - BRYANOS JAMES C [US]

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