

Title (en)
ANTENNA SYSTEM FOR BROADBAND SATELLITE COMMUNICATION IN THE GHZ FREQUENCY RANGE, COMPRISING A FEEDING ARRANGEMENT

Title (de)
ANTENNENSYSTEM ZUR BREITBANDIGEN SATELLITENKOMMUNIKATION IM GHZ FREQUENZBEREICH MIT SPEISENETZWERK

Title (fr)
SYSTÈME D'ANTENNES POUR COMMUNICATION SATELLITE LARGE BANDE DANS LA PLAGE DE FRÉQUENCES GHZ, DOTÉ D'UN RÉSEAU D'ALIMENTATION

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Application
EP 13734662 A 20130702

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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)
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Cited by
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