

Title (en)

Multiple beam deployable space antenna system

Title (de)

Entfaltbares Weltraumantennensystem mit Vielfach-Strahlungskeulen

Title (fr)

Système d'antenne spatiale déployable à faisceaux multiples

Publication

EP 0421722 B1 19960619 (EN)

Application

EP 90310760 A 19901002

Priority

US 41581489 A 19891002

Abstract (en)

[origin: EP0421722A2] A multiple beam space antenna system for facilitating communications between a satellite switch (100) and a plurality of earth-based stations (1,a,b,) is shown. The antenna is deployed after the satellite is in orbit by inflation of a raft-type supporting structure which contains a number of antenna horns (80). These antenna horns are oriented in substantially concentric circular groups (A-D) about a centrally located antenna horn (80). Each of the antenna beams projects an area on the earth. Each of the areas (a,b) of the beams are contiguous. As a result, one large area is subdivided into many smaller areas to facilitate communications. In addition, a lens (FIG. 7C and 7D) may be employed to focus the beams of the horn antennas.

IPC 1-7

H01Q 25/00; **H01Q 21/20**; **H01Q 1/08**; **H01Q 19/06**

IPC 8 full level

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CPC (source: EP)

H01Q 1/081 (2013.01); **H01Q 19/06** (2013.01); **H01Q 21/20** (2013.01); **H01Q 25/00** (2013.01)

Cited by

CN109037968A; FR2697375A1; US5430451A; CN114614885A; WO9309578A1; WO9402972A1; US11955715B2

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