

Title (en)

HIGH CAPACITY COMMUNICATIONS SATELLITE

Title (de)

KOMMUNIKATIONSSATELLIT MIT HOHER KAPAZITÄT

Title (fr)

SATELLITE DE COMMUNICATION A GRANDE CAPACITE

Publication

EP 0873602 A4 20010117 (EN)

Application

EP 95919044 A 19950512

Priority

- CA 2220676 A 19950512
- US 9505693 W 19950512

Abstract (en)

[origin: CA2220676A1] A high capacity communication satellite uses a large number of parallel beams and optical processing to effect a fully interactive, high bandwidth, high channel capacity fully switched communication system. The satellite reuses its assigned bandwidth in each of the multiple beams. The beams are formed by either RF or optical means. The specific users in each beam are then separated optically using spatial light modulation (SLM) array correlation techniques. A single large SLM, or multiple smaller SLMs in combination, may be used. The individual customers are then repositioned in the array by optical SLM mixing and recorelation. The result is then remodulated by another SLM array used as a mixer, and then recombined to reform the appropriate outgoing beams. The entire system then becomes a fully switched, high bandwidth, high channel capacity communications network on a single satellite.

IPC 1-7

H04B 10/00; **H04B 7/185**

IPC 8 full level

H04B 7/185 (2006.01); **H04B 10/00** (2006.01)

CPC (source: EP)

H04B 7/18515 (2013.01)

Citation (search report)

- [A] FR 2709895 A1 19950317 - MARTIN MARIETTA CORP [US]
- [A] BAISTER G ET AL: "The optical crossbar switch for signal routeing on board communication satellites", INTERNATIONAL JOURNAL OF SATELLITE COMMUNICATIONS, vol. 12, no. 2, March 1994 (1994-03-01), pages 135 - 146, XP000965444
- See references of WO 9636138A1

Designated contracting state (EPC)

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CA 2220676 A1 19961114; EP 0873602 A1 19981028; EP 0873602 A4 20010117

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