PAYLOAD POWER AMPLIFICATION
DEVICE FOR A MULTIBEAM SATELLITE

Innovate payload architecture characterised by flexible allocation of onboard power according to data signals to be broadcast and available antennas

**Technological benefits**

A simple and powerful technology
Modification of power broadcast in real time according to requirements
Great flexibility for allocating onboard power
Fine variation of power levels
Simplified device
No use of special switches
Device enabling broadcasting of the same data signal either on a single antenna with maximum power or on several antennas with power adapted to the regions to be covered

**Invention overview**

The invention concerns a power amplification device with multiple antennas, multiple amplification circuits and interconnection means.
Device operation consists in injecting in a summing network chosen according to the broadcast power and antenna to be used, a signal amplified by the amplifier circuits using an appropriate switch control.

**Potential applications**

Ground stations for mobile telephony
Telecommunication satellites

**Commercial benefits**

A reliable and inexpensive system
Use of series produced standard circuits
Strong performance and reliability
Reduced costs

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Patented invention, available under license
Pre-industrialisation in progress