



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

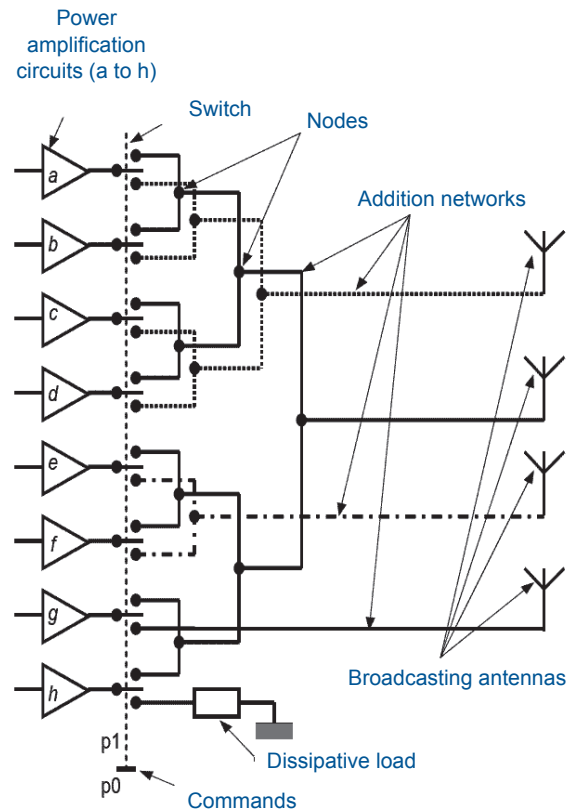
No use of special switches

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.



Example of configuration enabling broadcasting of a signal to one or more ground coverage areas

Potential applications

Ground stations for mobile telephony

Telecommunication satellites

TRL : 3-4 (2010)

Patented invention, available under license
Pre-industrialisation in progress

Commercial benefits

A reliable and inexpensive system

Use of series produced standard circuits

Strong performance and reliability

Reduced costs