HT2500 Satellite Router

As part of the market-leading Hughes JUPITER™ System, the HT2500 is the powerful, next-generation satellite terminal featuring support for the wideband DVB-S2X forward channel, delivering the industry's best efficiency. The return channel uses powerful and advanced Low Density Parity Coding (LDPC) in conjunction with Adaptive Inroute Selection (AIS) for industry-best performance. The HT2500 features best-in-class throughput performance, delivering up to 200 Mbps of throughput and is capable of supporting bandwidth-intensive, simultaneous multimedia applications.

The HT2500 is a high-performance satellite router designed to be installed in an industry standard 19" equipment rack suitable for data center environments, most enterprise facilities and carrier facilities. The compact design consumes only one rack space (1U rack mount) and supports a variety of power options. The terminal supports dual-cable IFL that enables use of an industry standard L-band interface to the outdoor unit, as well as operating on a wide array of operating frequencies with a variety of high-power BUCs. The HT2500 comes equipped with 4 GigE LAN ports.

The HT2500 router can be used for backhauling 4G/LTE cell sites. The S1-U interface between the eNodeB and the EPC uses GPRS Tunneling Protocol (GTP) to encapsulate the user traffic. To minimize the traffic carried on the satellite link, the HT2500 router strips off the GTP header information and reconstitutes it at the Gateway. The HT2500 supports 7,500 simultaneous TCP connections for 4G/LTE backhaul applications.

Technical Specifications

Forward Channel
- DVB-S2X with Adaptive Coding and Modulation (ACM)
- Frequency: C-band, Ku-band, and Ka-band
- Modulation: QPSK, 8PSK, 16APSK, 32APSK, 64APSK
- Encapsulation: GSE
- Symbol rates: Up to 235 Msps

Return Channel
- MF-TDMA, TDM*
- LDPC FEC with efficient variable block/burst sizes
- OQPSK, 8PSK modulation (16APSK future)
- Symbol rate from 256 ksps to 12 Msps

Network Interfaces
- 4 GigE LAN ports
- USB port

Power Supply Options
- AC Input: 90-264 VAC
- DC Input: +24 V and -48 V

Mechanical and Environmental
- Weight: 8.2 lbs (3.72 kg)
- Size: 19" (w) x 10.5" (d) x 1.75" (h)
- Operating temperature: -0° C to +50° C
- Relative humidity: 77% (noncondensing)

Other
- Radio specifications:
  - L-band – TX: 950-1825 MHz, RX: 950-2150 MHz
  - Available in C-, Ku-, or Ka-band
- Antennas: 74 cm, 98 cm, 120 cm, or 180 cm
- IFL cable type and length: Dual RG-6, 75 ohm, F-type connector, up to 300' (100m)

Regulatory
- Safety: UL/CSA/EN 60950-1
- EMC: FCC Part 15 class B, ICES-003
- RoHS-2 compliant

Networking Features:
- Dual stack IPv4/IPv6
- Static and Dynamic Addressing
- BGP Routing Support
- Policy Based Routing
- NAT/PAT
- RIPv2, RIPNG
- VLAN tagging
- DHCP-V6 Relay
- VRRP
- Access Control List (ACL)
- DNS Caching
- SIP Call Proxy
- Advanced Web Acceleration
- Layer 2*

*Future

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