

SATELLITE EXPRESS™ XR1

FAST ETHERNET
RECEIVER/ROUTER



Overview

The Satellite Express XR1 Fast Ethernet receiver/router provides satellite-to-LAN connectivity. Designed to deliver IP multicast services for corporate and commercial broadcast data networks, Satellite Express XR1 offers ease of integration and operational stability demanded by network administrators.

The Satellite Express XR1 receiver/router is designed to deliver IP-based video, audio and data to corporate Virtual Private Networks (VPN), content providers and Kiosk applications. In addition, the Satellite Express XR1 receiver/router increases satellite bandwidth utilization via section packing. The Satellite Express XR1 also includes built-in management features that enable remote monitoring and control over a LAN.

Highlights

- 30 Mbps sustained throughput at up to 8 PIDs
- Section packing increases satellite bandwidth utilization
- SNMP-based network management
- Easy-to-use HTML control Interface
- Inband configuration control over satellite
- Flexible PC architecture

Benefits

Flexible Data Routing to a Fast Ethernet LAN Incoming multicast and unicast streams are easily routed onto the network or to a server. Full administration of incoming streams, including address remapping and IP-packet TTL modification, provides easy customization for a wide variety of LAN environments.

Easy Multicast Network Integration The Satellite Express XR1 receiver/router minimizes network traffic by implementing Internet Group Management Protocol (IGMP) which enables automatic detection of active clients on the sub-net and only forwards requested services. BroadLogic's VersaCast™ technology gives the administrator an application to set up and modify the rules for each incoming multicast group or service.

Remote Monitoring and Management Satellite tuning, data handling, performance statistics, and routing functions can be controlled and managed remotely through LAN/WAN or over the satellite link. Flexible management options include command line, Web-based remote management or standard SNMP-based management.

Security Receiver Password protection provides added security to the network. Other data security options are available including Fixed Key CAS and IP level decryption.

Flexible PC Architecture The Satellite Express XR1 receiver/router may be configured with an internal hard disk drive to provide a single device solution utilizing off-the-shelf or custom application software. The internal disk drive also provides data storage capacity for applications requiring file delivery and/or Web caching.

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Specifications

RF Tuner

External connector: F type female
Receiving frequency: 950 MHz to 2150 MHz
Input signal level: -25 dBm to -65 dBm nominal
RF input impedance: 75Ω

Operating System

Linux

LAN Interface

Connector: RJ-45
Interface Protocol: Ethernet 802.3
Bus Speed: 10/100 Mbps

LED Indicators

Power On
Non volatile memory activity

Serial Ports

COM1: Command Line Interface for configuration

Data Rates

Output to LAN: 30 Mbps sustained

Demodulation and Error Correction

Symbol Rates: 1.5 -45 Msps—variable
Viterbi Inner Code: K=7, R=1/2, 2/3, 3/4, 5/6, 7/8
Reed-Solomon Outer Code: (204, 188), T=8

LNB Power and Switching

Supply Voltage Selectable: 13V or 18V
Max LNB Current: 400 mA
Antenna Control: 22 kHz signal
DiSEqC: 1.0, 1.1, 1.2 supported
Over Current and Short Circuit Protection

Data Handling and Demultiplexing

Multiprotocol Encapsulation (MPE)
Datagram and Section Packing
Unicast/Multicast Filtering
MAC Addresses: 128
PID Filters: 8
Section Filters: 32
UDP/TCP/IP Protocol
PES and TS Data Filtering
PSI/SI Private Tables
LLC SNAP/Null Encapsulation

Remote Management

SNMP agents and MIBs
Web-based (HTTP) Control
Inband support (optional)

Routing Capabilities

IGMP Support (V1, V2)
Versacast™ Technology
Multicast Address Remapping
Policy-based control over each inbound multicast and unicast stream
TTL Modification

Security

Conditional Access (optional)
Smart Card Reader (optional)
Fixed Key CAS (optional)
IP Encryption (optional)

Physical/Environmental

H x W x L: 45x483x381 mm
Operating Temperature: 0 C to 45 C
Storage Temperature: -55 C to 85 C
Humidity (operating): 10% to 90%

Power Supply

Power Input: 100-240 VAC
Power Frequency: 50-60 Hz
Power Consumption: 50W (typical)

Regulatory Compliance

UL, CE, FCC-Class B



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