



## XR1 5220S

## Broadband Satellite Access Gateway



XR1 5220S

## Highlights

**Cost-effective Broadband Access Gateway**

**Up to 10Mbps unicast bandwidth per TCP session**

**Up to 68Mbps streaming media multicast capacities**

**Plug & Play network setup with DHCP, WINS**

**SNMP-based network management**

**Gateway functionality with external modem support**

**Easy-to-use HTML control interface**

**Firewall protection with NAT, PAT, and Packet Filtering**

**Features VBox's innovative BIC-2000 integrated transport silicon**

**LCD Interface**

- Overview** The XR1 5220S Broadband Satellite Access Gateway delivers the power of broadband satellite access in an integrated, high performance package. Targeted for Network Service Providers, Corporate IT departments, and small office/home office (SOHO) environments, the XR1 5220S enables a host of rich applications, including broadband internet access, virtual private networks (VPN), interactive video-conferencing, distance learning, point-of-sales kiosks, and fully reliable multicast file distribution.

The XR1 5220S Broadband Satellite Access Gateway combines up to 68Mbps satellite-to-LAN bandwidth (10Mbps of TCP/IP) with a suite of integrated applications to automate the setup of hybrid satellite-terrestrial network. The result is the simplest, most reliable way to enable broadband network connectivity over satellite. Optimized for lights-out operation, the XR1 5220S can be remotely monitored via SNMP, and remotely managed through HTML or command line interface, (CLI).

- Benefits**
- Full 2-way Internet Connectivity** Combining high-speed satellite down-link and ubiquitous terrestrial return channels over POTS or ISDN lines, the XR1 5220S Broadband Satellite Access Gateway is the heart of a high-speed internet gateway using broadband satellite connectivity. A tightly integrated suite of applications automate the setup of the XR1 5220S in most networks, allowing all users connected to the XR1 5220S to experience transparent, trouble-free access to the web, email, FTP, and NNTP news. The return channel can also serve as an out-of-band link for remote network control and monitoring.
- Highest Bandwidth Broadband Access Technology** Up to 68Mbps of UDP traffic equivalent to 6-45 T1 lines, can be economically delivered to any end-user network, far eclipsing other broadband last-mile technologies.
- Service providers generate more revenues by accommodating more users and offering new rich streaming-media services. Corporate IT departments reduce bandwidth costs by clearing up bottle-necks in existing WAN-based corporate networks, and by utilizing the most economical method for distribution of large amounts of data and files.
- Easy setup and integration** With an advanced suite of integrated applications, the XR1 5220S offers unprecedented ease of integration into existing networks. DHCP and WINS automate administration of a LAN, while NAT and UDLR make gateway access transparent. Simply connect the satellite dish and LAN cable, plug in the ISP information, and broadband internet access is delivered to any network.
- VPN Capability** With optional VPN package, the Satellite Express XR1 5220S can support PPTP and UDLR based Virtual Private Networks. This allows seamless integration of remote offices into the corporate LAN without the congestion and expense usually associated with WAN-based solutions.

**VBox Communications Ltd** is a provider of customer premises receiver solutions for digital TV and data broadcasting networks. VBox's PCI cards and USB boxes provide a whole range of digital TV reception capabilities, including handling of encrypted content for Pay TV services and delivery of high-quality video, audio and data services. VBox also provides Routers and Gateways for the reception of data and high quality digital



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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

**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

**Demodulation and Error Correction**

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

**Data Rates**

68 Mbps multicast (UDP) sustained  
 Up to 10 Mbps unicast (TCP) sustained

**Return Channel**

V.90 - 56Kbps max over POTS  
 ISDN - 128Kbps 2 BRI channels  
 PPP - RFC1661  
 DHCP - RFC 2131  
 NAT - RFC1631  
 Demand-Dial

**Data Handling and Demultiplexing**

Multi-Protocol Encapsulation (MPE)  
 Datagram and Section Packing  
 Unicast/Multicast Filtering  
 Multicast Address Filters: 128  
 PID Filters: 8  
 UDP/TCP/IP Protocol  
 PSI/SI Private Tables  
 LLC SNAP/Null Encapsulation

**Remote Management**

SNMP agent and support for MIBII  
 and Private MIB  
 Web-based (HTTP) Control  
 Inband support (optional)

**Routing Capabilities**

Unicast Routing: RIP-I IGMP Support  
 (V1, V2) VersaCast™ Technology  
 Multicast Address Remapping  
 TTL Modification

**Gateway LAN Administration**

DHCP - RFC2132  
 DNS - RFC1877  
 WINS

**Security**

VPN Tunneling - PPTP, UDLR  
 IP Encryption (optional)  
 Fixed Key CAS

**LAN Interface**

Connector: RJ-45  
 Speed: 10/100 Auto-Sensing Mbps

**LED Indicators**

Power On  
 Non-volatile memory activity  
 Signal Lock  
 Data Lock

**Physical/Environmental**

H x W x L: 45x483x381 mm  
 Operating Temperature: 0 C to 40 C  
 Storage Temperature: -10 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**

CE, FCC-Class A

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