

SATELLITE EXPRESS™ PCI+

DESKTOP
RECEIVER

Overview

The Satellite Express PCI+ is a highly integrated satellite-to-PCI broadband receiver designed for DVB compliant satellite networks. Featuring unparalleled RF performance, high data throughput, and support for popular conditional access systems, the Satellite Express PCI+ delivers the flexibility and performance necessary for demanding desktop and server applications.

Highlights

- Up to 60 Mbps throughput to the PCI Bus
- QPSK demodulation from 1.5 to 45 Msps
- Support for popular conditional access systems
- Easy, one-step Plug-and-Play installation
- Windows™ 95, 98, 2000, ME and Windows NT operating system support
- WHQL certified

Benefits

Performance Designed for optimal performance, the Satellite Express PCI+ incorporates state-of-the-art IC tuner technology enabling data rates of up to 60 Mbps in a single stream (PID) and support for up to 8 PIDs of video, audio and data simultaneously. Variable symbol rates from 1.5 to 45 Msps are fully supported within the DVB signal to noise specification, providing the flexibility to maximize transponder bandwidth utilization.

Security Supporting popular conditional access systems, the Satellite Express PCI+ can be integrated into a wide variety of secure broadcast environments. An on-board smart card reader provides quick installation and eliminates the need for additional hardware or cables.

Compatibility/Interoperability BroadLogic's extensive PC expertise in application, device drivers, firmware, networking and VLSI development ensures interoperability across multiple open system architectures, conditional access and operating systems. BroadLogic is a worldwide leader in the design of hardware and software products used to create broadband networks conforming to international standards, including DVB, ATSC, TCP/IP and MPEG.

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Specifications

RF Tuner

External Connectors: F type female
 Receiving Frequency: 950 MHz to 2150 MHz
 Input Signal Level: -65 dBm to -25 dBm
 Nominal Input Impedance: 75Ω
 L/O Leakage at RF Input: -63
 Frequency Acquisition:
 $R_s < 2 \pm 1$ MHz
 $2 \leq R_s < 5 \pm 1.5$ MHz
 $R_s \geq 5 \pm 3$ MHz

Processor/PCI Interface BIC-2000

Buffer Memory: 4096 KB
 Program Memory: 512 KB
 Computer Bus PCI: 2.1 compliant local bus
 Interface Protocol: Bus Master DMA, Scatter
 Gather
 Host Bus Width: 32-bit
 Host Bus Burst Rate: 133 MB/s

QPSK

Symbol Rates: 1.5–45 Msps—variable

LNB Power and Switching

Supply Voltage: Selectable 13V or 18V
 Max LNB Current: 400 mA
 Antenna Control: 22 kHz signal
 Short Circuit Protection

LNB Settings

Local Oscillator Frequency

Operating Systems

Windows 95, Windows 98, Windows NT 4.0,
 Windows 2000, Windows ME

FEC

Decoding: Viterbi/Reed-Solomon
 Viterbi Inner Code: K=7, R=1/2, 2/3, 3/4,
 5/6, 7/8
 Reed-Solomon Outer Code: (204, 188), T=8

Transponder Settings

Polarization, Symbol Rate, Frequency

Tuner Status

Signal Strength
 Signal Lock
 Error Status: Channel BER, Viterbi BER,
 Reed-Solomon, LNB Offset Frequency
 Signal to Noise Ratio

Hardware Capabilities

Multiprotocol Encapsulation (MPE)
 Datagram and Section Packing
 No ECM, EMM to the bus
 CRC Check Sum
 Unicast/Multicast Filtering
 MAC Addresses: 128
 PID Filters: 8
 Section Filters: 32

Software Capabilities

UDP/TCP/IP Protocol
 PES and TS Data Filtering
 PSI/SI Private Tables
 LLC SNAP/Null Encapsulation
 Single or Multiple Board Support
 Single and Multiple Application Support
 Downloadable Firmware
 Front End Synchronization Eliminates
 False Locks

Security

Conditional Access
 NDS VideoGuard, Canal+ MediaGuard,
 On board Smart Card reader
 Irdeeto Access, Cyphercast
 Fixed Key CAS

Physical/Environmental

Height: PCI 2.1 Compliant 4.200 in. (10.67 cm)
 Length: PCI 2.1 Compliant 6.875 in. (17.46 cm)
 Component Height: PCI 2.1 .570 in. (1.44 cm)
 Operating Temperature: 0 C to 55 C
 Storage Temperature: -55 C to 85 C
 Humidity (operating): 10% to 90%

Optional Connectors

Smart Card reader
 26-pin LVDS Connector



NETWORKING A GENERATION AHEAD™

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Designed for
 Microsoft
 Windows®2000
 Professional
 Windows®NT
 Workstation 4.0
 Windows®98



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