



SATELLITE EXPRESS™ PCI+ 2030

Desktop Receiver



Highlights

Up to 60 Mbps throughput to the PCI Bus

QPSK demodulation from 1.5 to 45 Msp

Optional support for popular conditional access systems

Easy, one-step Plug-and-Play installation

Windows™ and Linux operating system support

Overview

The Satellite Express PCI+ 2030 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+ 2030 delivers the flexibility and performance necessary for demanding desktop and server applications.

Benefits

Performance Designed for optimal performance, the Satellite Express PCI+ 2030 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 Msp 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+ 2030 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 VBox'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. VBox 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.

Vbox Communications Ltd is a provider of customer premises receiver solutions for digital TV and data broadcasting networks. VBox products, include PCI cards and USB boxes, provide digital TV reception capabilities including handling of encrypted content for Pay TV services and deliver high-quality video, audio and data services. VBox also provides Routers and Gateways for receiving data and high quality digital content from digital broadcast infrastructures and distributing it over LAN.





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 98, 2000, XP and Various
 Linux Versions

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)

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

Fixed Key CAS
 Conditional Access (optional)
 On board Smart Card reader (optional)

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

VBox Communications Contact Information:

Marketing:

Email: marketing@vboxcomm.com

Sales:

Email: sales@vboxcomm.com

General:

Email: info@vboxcomm.com

Contact Information for North America:

Optibase Inc.
 1250 Spacepark Way
 Mountain View, CA 94043, USA
 Phone: + 1 650 230 2432
 Fax: + 1 650 691 9998
 Email: sales@optibase.com

www.vboxcomm.com

**Digital Broadcast
 and Broadband
 Receivers**

