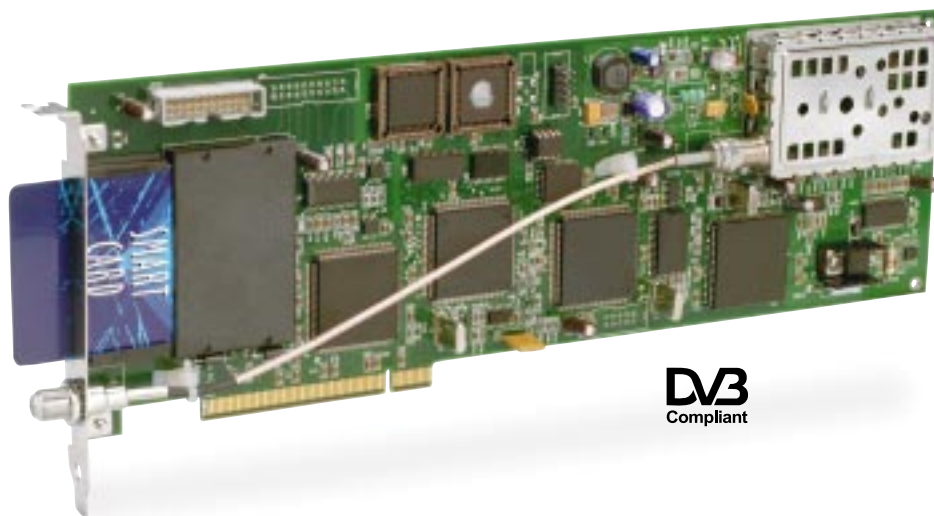




MediaCast™

Satellite PC/Server Receiver Card



DVB
Compliant

HIGHLIGHTS

- ▶ Single add-in board for reception of DVB SCPC/MCPC satellite video, audio, and data
- ▶ Simultaneous reception of various data streams from 1.5 to 30 Msps
- ▶ Interfaces with industry standard MPEG-2 decompression and display solutions
- ▶ Industry leading QPSK receiver and error corrector ensures high-quality reception
- ▶ PCI bus architecture with low-power requirements

OVERVIEW

The Radyne ComStream MediaCast™ Satellite PC/Server Receiver Card adds DVB (digital video broadcast) functionality to the next-generation, multimedia PC, bringing a whole new world of video, audio, and information directly to PC users via satellite. The MediaCast card operates in either SCPC (single channel per carrier) or MCPC (multiple channels per carrier) mode. Its open architecture design allows deployment of current and planned, future interactive applications for single PC and LAN server environments. Radyne ComStream's modular design can accommodate different conditional access requirements. The MediaCast card is packaged in a standard PCI bus architecture with low-power requirements compared to other receiver cards. Utilizing high-performance integrated circuits, its rugged hardware is specifically designed for the demands of office environments.

Radyne ComStream has the expertise to deliver this next generation digital broadcast receiver platform. On-time delivery of millions of

demodulator subsystems throughout the world has made Radyne ComStream a leader in the design and manufacture of high-volume front-end subsystems and digital set-top receivers.

DVB COMPLIANT

Because the DVB satellite standard is used worldwide, the MediaCast card will support applications anywhere around the globe. And the cost of implementing satellite networks is lowered too.

PCI Bus

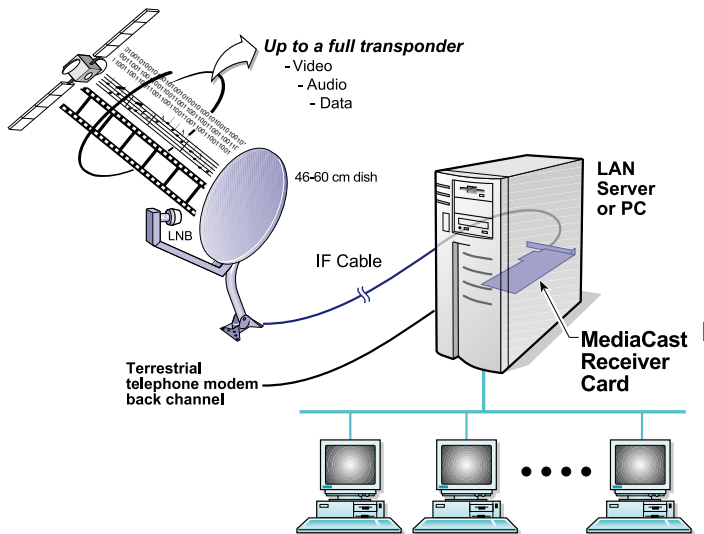
The PCI bus architecture supports high-bandwidth applications, whatever they may be, and because the MediaCast card was developed using it, the card will be able to support all current and future applications. The MediaCast card will not limit the imagination of the operator or the content developer when it comes to providing multimedia services for PCs.

SIMULTANEOUS PROGRAM RECEPTION

The MediaCast card is able to receive up to 32 video, audio, and data services, simultaneously. This allows the maximum flexibility for the end user. For example, with the MediaCast card, one could watch a corporate training video broadcast (both audio and video), receive a stock ticker along the bottom of the PC's screen, and several software updates and a daily newspaper, all at the same time.

RADYNE
COMSTREAM

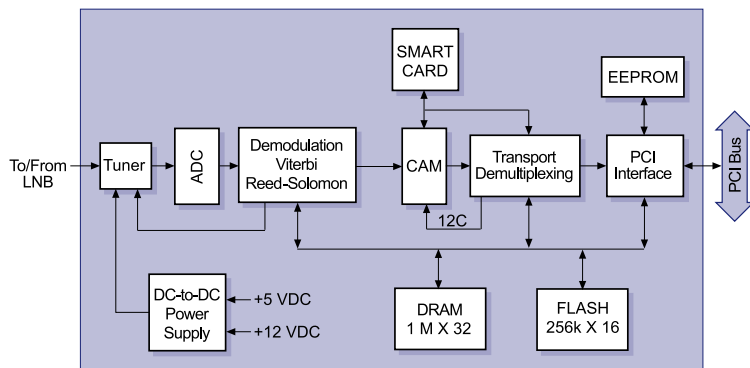
MediaCast™ Satellite PC/Server Receiver Card



The MediaCast card is designed to operate in both single PC and LAN server environments. Simultaneous program reception includes MPEG-2 video, audio (CD-quality), online data, and software downloads.

RADYNE COMSTREAM TECHNOLOGY

Radyne ComStream's expertise in digital broadcast network products spans a decade. Major information service providers in Europe, Latin America, North America, and the Asia-Pacific have selected Radyne ComStream products for their digital broadcast networks. Radyne ComStream is chosen because it provides a robust, high-quality system solution that is responsive to our customers' needs and delivers high-performance operation.



Block diagram of the MediaCast™ Satellite PC/Server Receiver Card



ComStream is a DVB-compliant equipment provider.

SPECIFICATIONS

LNB INTERFACE

- Power supply: 14/18 VDC, with cable compensation, switchable through software to control horizontal and vertical polarization
- 22 kHz tone: 600 mV \pm 200 mV to -20 dBm level at 350 mA, switchable through software to select low- or high-band LNB operation in Europe
- Tuner input level: -70 dBm to -20 dBm
- Tuner frequency range: 950 MHz to 2150 MHz
- Connector: standard, threaded F type
- Dual LNB: Supported

BUS INTERFACE

- Completely PCI revision 2.1 compliant
- 32-bit operation, full multimaster capability, 5 V interface only

DEMODULATION AND ERROR CORRECTION

- Standards: QPSK EBU/DVB compatible, per ETS 300 421
- Receiver data rates: 1.5 to 30 Msps
- Spectral inversion: programmable
- Concatenated FEC decoding selectable via software
 - Viterbi code rates: 1/2, 2/3, 3/4, 5/6, 7/8
 - Reed-Solomon: 204/188, corrects up to 8 bytes per packet

DATA STREAMS

- Up to 32 services with a total aggregate bandwidth of 30 Mbps
- PID filtering can be applied to Packetized Elementary Streams (PES), Program-Specific Information (PSI), Service Information (SI), or private data
- Scatter-gather buffer management with "unlimited" number of buffers for each service
- Section filtering per ETS 301 192
- Compliant with MPEG-2 ISO/IEC 13818-1 transport stream specification
- Automatic detection and handling of errors, lost packets, discontinuity, and splice points are reportable via software

SOFTWARE

Commands issued to the board:

- Configure receiver front end
- Clear fault status
- Transport service configuration
- Transport service buffer configuration
- Transport service enable/disable
- Reset
- Setup

Information/status available from the board:

- Command buffer size
- Version
- Front-end configuration
- Front-end status
- Receiver lock status
- Transport buffer full
- Fault status
- Transport service buffer status
- Transport service current status
- Time stamp

NDIS drivers for Windows® 95, Windows® 98, and Windows® NT

Mini-application is available to exercise, test, and evaluate the board

Firmware updates across PCI bus

MECHANICAL/ENVIRONMENTAL

- Width: 312 mm (12.5 in.)
- Height: 89.53 mm (3.5 in.)
- Depth: 12.06 mm (0.5 in.)
- Tolerances: \pm 0.127 mm (\pm 0.005 in.)

Temperature

- Operating: 0°C to 60°C
- Storage: -60°C to 95°C
- Relative operating humidity: 10% to 95% noncondensing

Power

- +5 VDC at 2.0 A
- +12 VDC at 500 mA

U.S.A./Canada: 6340 Sequence Drive, San Diego, California 92121 USA Tel: + (1) 858.458.1800 Fax: + (1) 858.657.5404
 3138 East Elwood Street, Phoenix, Arizona 85034 USA Tel: + (1) 602.437.9620 Fax: + (1) 602.437.4811
Latin America: 6413 Congress Avenue, Suite 220, Boca Raton, Florida, 33487 USA Tel: + (1) 561.988.1210 Fax: + (1) 561.988.8290
Europe/Middle East/Africa: Dunsfold Suite, 2nd Floor, Mill Pool House, Mill Lane, Godalming Surrey UK GU7 1EY Tel: + (44) 1483.421302 Fax: + (44) 1483.421303
China: Room 1501 Canway Building, 66 Lanishi Road, Xicheng District, Beijing, 100045 Tel: + (86) 10 6 804.2542 Fax: + (86) 10 6 804.2524
Asia-Pacific: 15 McCallum Street, #12-04, NatWest Centre, Singapore, 069045 Tel: + (65) 325.1951 Fax: + (65) 325.1950
 7th Floor Wisma Budi, J.L.H.R. Rasuna Said, Kav C-6 Jakarta, Indonesia 12940 Tel: + (62) 21.521.3295 Fax: + (62) 21.521.3343
Internet World Wide Web: <http://www.radynecomstream.com>

Price, specifications, and product availability subject to change without notice. All trademarks acknowledged.

© 1999 Radyne ComStream Corporation. All rights reserved.

ML-0108 08/99



RADYNE
COMSTREAM