

MPEG-1 Codecs



Television Quality Video, Audio, and Data Networking

VBrick network appliances are low cost, high quality audio and video encoders/decoders. VBricks enable the transmission and delivery of true television quality video and audio signals over standard switched Ethernet, ATM, T1/E1, xDSL, satellite, or microwave networks. VBricks are fully MPEG compliant, and support both NTSC and PAL video and stereo audio via standard composite or S-video connectors. VBricks provide true entertainment quality video - while only using minimum network bandwidth.

Applications

- **Videoconferencing** over IP or ATM
- **Distance learning** and training
- High resolution **surveillance & process monitoring**
- **Telemedicine** — provide up-to-date medical information to doctors and patient rooms
- **Remote court arraignment** — Reduce the costs of transportation and security by enabling video based hearings and arraignments
- **Intelligent traffic systems** — monitor highway traffic

Product Features

- Network Interfaces include **Ethernet (10 Base-T) and ATM (OC-3)**
- Supports **NTSC, PAL, composite** and **S-Video** inputs
- Encode/Decode **closed captioning**
- **Integral serial port** for remote camera control providing pan, tilt, and zoom capability
- **Full SIF Resolution** and motion
 - 352H x 240V NTSC - 30 fps
 - 352H x 288V PAL - 25 fps
- **IR remote control** port
 - Video stream program guide
 - Two-way conference set-up
 - Billboard
- **Real-time** MPEG-1 encoding and decoding
- **Low latency** for conferencing
- Supports **UDP/IP and RTP** transport streams over Ethernet
- **IP Multicast** client and server
- **Layer 3 Quality of Service** - Diff Serv
- Video encoding rates **configurable from 1 to 3 Mbps**
- Compatible with **Microsoft Windows Media Player™** and **Cisco IP/TV® Viewer**

Models

VBrick 1000 Series — MPEG-1 Video Encoder accepts NTSC/PAL video and stereo audio and delivers MPEG-1 over a high speed network

VBrick 2000 Series — MPEG-1 Video Decoder accepts MPEG-1 and delivers NTSC/PAL video and stereo audio

VBrick 3000 Series — MPEG-1 Video Encoder/Decoder - accepts and delivers NTSC/PAL video and stereo audio

Network Interfaces

- Ethernet 10Base-T (standard)
- 155 Mbps ATM UTP (optional)
- 155 Mbps ATM OC3 MM/SM Fiber (optional)
- Dual 155 Mbps ATM OC3 (optional)

Interoperability

- **EtherneTV MCS** — unified portal providing PC and set top box access to live and on-demand content
- **EtherneTV-NXG** — Video-on-Demand server captures MPEG-1 streams for future playback
- **EtherneTV-STB** — decode MPEG-1 streams from low cost set top boxes
- **StreamPlayer & StreamPlayer Plus** — software decoder for desktop PCs
- **SDK** — build custom applications
- **VBSDS** — control DVD & VCRs through centralized management
- **VBScheduler** — schedule streaming & interactive sessions



SPECIFICATIONS

Video Input/Output Signal	75 Ohm Composite 1V p-p via RCA Phono Jack, S-Video via mini DIN
Video Format	NTSC (30 Hz), PAL (25 Hz)
Audio Input/Output	Left and Right (Stereo), 1V p-p via RCA Phono Jacks
Video	Encoder: MPEG-1 (ISO/IEC 11172-1) Decoder: MPEG-1 (ISO/IEC 11172-1), MPEG-2 (ISO 13818-2) MPEG-1 Resolution: Standard Input Format (SIF) 352 x 240 (30 Hz) 352 x 288 (25 Hz) (encoder/decoder) Frame Rate: 29.97 fps - NTSC 25 fps - PAL
Audio	ISO/IEC 11172-3 Layer II, 16 Bit, 48 KHz per channel CD Quality Stereo Audio
MPEG Multiplexing	ISO/IEC 11172-1 System
Ethernet Port/IP	10 Base-T via RJ-45, Unicast, UDP & RTP Multicast, Diff Serv (QoS), adjustable PDU size, RTP system stream support
Optional ATM Interfaces	ATM Network I/O: Interface - 155M via RJ-45 Interface - Fiber 155M via SC connectors for multimode/single mode fiber (OC3c) Dual OC3 with VPI/VCI pass-through (switching) ATM UNI UNI 3.0/3.1, PVC PVC User Configurable VPI = 0 to 256, VCI = 0 to 65,535 Tx and Rx VC may be set independently Compatible with standard ATM switches and ATM Networks. May be configured point-to-point without ATM switch (PVC) Traffic Shaping: Integral
Serial Port	DB-9, async, DTE Local terminal interface for configuration RS-232 port for camera control
IR Port	IR for VBrick Remote Control
Mechanical	Weight: 5 lbs. (2.3 Kg) Dimensions: 2.3" (5.8 cm) Width 8.75" (22.2 cm) Depth 10" (25.4 cm) Temperature Range: 0 to 70 degrees Celsius Operating Humidity up to 90% non-condensing
Power	24 VDC via external power supply, 12 to 31 Watts (depending on model)
Management	Control Terminal, SNMP, Telnet, VBrick Administration Program for Windows™
Regulatory Compliance	FCC Part 15, CE Mark, UL