



Industry-leading Networked Video Appliances

Delivering MPEG formatted video and audio has never been easier. Whether it's corporate training, a new product launch, or a company-wide executive address, VBrick's MPEG appliances enable video delivery with the broadcast quality of MPEG-2, to the bandwidth efficiency of MPEG-4, over your enterprise network or the Internet.



Capabilities

VBrick's MPEG Appliance is based on the award-winning VB6000 platform and provides multiple capabilities in one portable and reliable appliance.

Encoding – Digitizes and compresses a video signal for delivery over an IP network

Decoding – Receives and decompresses a video stream from an IP network with automated generation of on-screen program display (MPEG-4 only)

Serving – Integrated video server provides up to 200 simultaneous streams via RTSP (MPEG-4 only)

Multicasting – Multicast live video, or continuously pump a stored video (MPEG-2), directly from the appliance

Recording – Record video that has been encoded or received over the network (MPEG-2 requires optional hard drive); recorded video may be forwarded to Video on-Demand servers for on-demand playback

Two-way collaboration – Inherent sub 250ms delay and built-in video teleconferencing capabilities, including picture-in-picture, enable applications such as video telepresence

Format Flexibility – VBrick MPEG appliances support NTSC and PAL video, 4:3 and 16:9 aspect ratios, a wide range of video resolutions, frame rates, and bit rates – including the ability to meter the output of the stream to fit the unique streaming requirements of any network

Remote Management – Complete remote configuration and management solution via SNMP, or enable automated configuration download via periodic configuration polling

Benefits

- Easy to configure and use – stream video in a matter of minutes
- Robust, reliable appliance minimizes downtime and IT support requirements
- Automatic on-screen program display (decoder)
- Streams to publishing points via HTTP push, enabling firewall tunneling (MPEG-4)
- Format flexibility enables portability and adaptability to any network requirement

Models

MPEG-2

9110-4200 Single Channel Encoder

9110-4300 Dual Channel Encoder

MPEG-2 Options

Hard Drive

MPEG-4

9140-4200 Single Channel Encoder

9140-4300 Dual Channel Encoder

9140-5200 Single Channel Decoder

9140-5300 Dual Channel Decoder

9140-6200 Encoder/Decoder

MPEG-2/MPEG-4

9130-4300 Dual Channel Multi-Format (MPEG-4/MPEG-2) Encoder

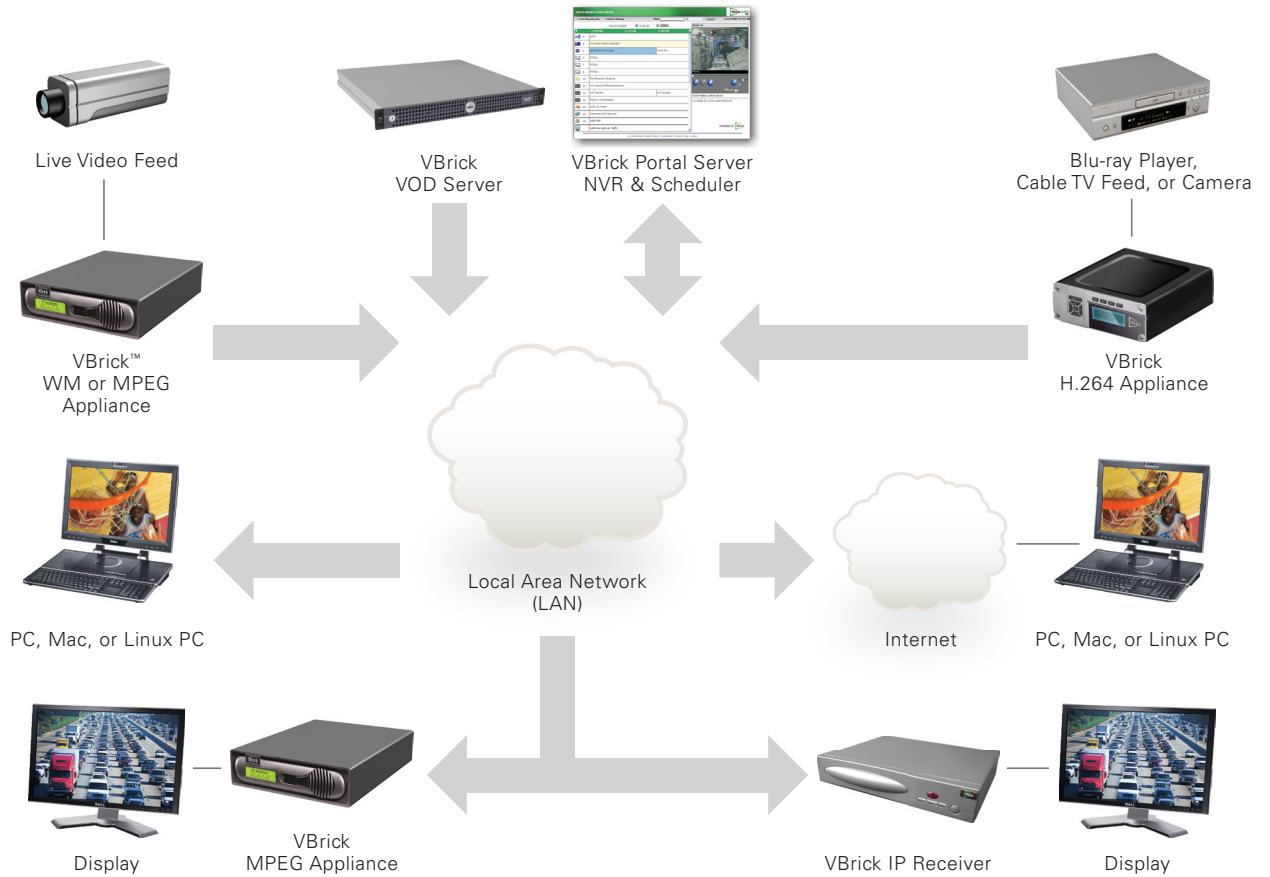
Compatibility

- Multiplayer compatible - Windows Media®, VBrick StreamPlayer, Quicktime
- ISMA-MPEG-4 part 2
- IPv6 (MPEG-2 to Streamplayer)
- IGMP v3
- SNMP v3

Interoperability

- VEMS – Portal Server, Scheduler, and Network Video Recorder
- Multiformat Set Top Box
- VBrick VOD-W MPEG Video On-Demand Server
- Streamplayer software for desktop video decoding

VEMS The VBrick Enterprise Media System (VEMS) is an enterprise-wide solution composed of a set of scalable, industrial strength, network-aware appliances that allow organizations to build a video infrastructure on top of any existing IP network. Each component plays a significant role in capturing, recording, managing, distributing, and viewing your video assets.



	MPEG-2	MPEG-4
Video Encoder	MPEG-2 ISO / 13818-1, -2, -3 Main Level, Main Profile 4:2:0, SP@ML and MP@ML Adjustable Intrapicture and reference distance (GOP)	MPEG-4 - ISO / IEC 14496-2:1999 (Simple Profile)
Format-Input	Analog: NTSC PAL PAL-M	Analog: NTSC PAL PAL-M
NTSC/PAL-M Resolutions	Full D1, 2/3 D1, 1/2 D1, 352x240	64x48, 128x96, 176x128 (QSIF), 192x144, 256x192, 320x240, 352x240 (SIF)
PAL Resolutions	Full D1, 2/3 D1, 1/2 D1, 352x288	64x48, 128x96, 176x144 (QCIF), 192x144, 256x192, 320x240, 352x288 (CIF), 384x288
JPEG Image Capture	N/A	Capture JPEG images every 1 to 600 seconds
Compliant Levels	N/A	Level 1 up to 64 Mbps Level 2 up to 128 Mbps Level 3 up to 384 Mbps
Frame Rates	NTSC: 29.97 fps PAL: 25 fps PAL-M: 30 fps	NTSC: 1 fps to 30 fps PAL: 1 fps to 30 fps PAL-M: 1 fps to 30 fps
Bit Rate/Frame Rate	Constant / Constant	Constant / Constant Variable / Constant Constant / Variable
PID Selection	Adjustable	N/A
Key Frame Interval	Programmable GOP	User defined, 0-30
Rates	1 Mbps to 15 Mbps	8 kbps - 2 Mbps
Closed Caption	Line 21 Passthrough, or User Inserted	Line 21 Passthrough, or User Inserted
Inputs	Composite or S-Video	Composite or S-Video
Audio Encoder	MPEG-1 Layer II ISO / 13818-3	MPEG-4 - ISO / IEC 14496-3:1999, Low Complexity AAC
Audio Encoder Sample Frequency	48 kHz	8kHz, 16kHz, 24kHz, 44.1kHz, 48kHz
Rates	256 kbps, 384 kbps	8 kbps to 320 kbps with 2 kbps granularity
Audio Modes	Analog: Stereo Mono (Left to Stereo) Mute	Analog: Dual Stereo - 2 Inputs / 2 Outputs Mid / Side Coded Stereo Mono1 - Left Input / Left Output Mono2 - Left Input / Left and Right Output
Audio Inputs	Unbalanced Input: Audio via Minijack Balanced Input: Audio via Minijack, or Microphone DIN	Unbalanced Input: Audio via Minijack Balanced Input: Audio via Minijack, or Microphone DIN
Video Decoder	N/A	MPEG-4 - ISO / IEC 14496-2:1999 (Simple Profile)
Format output	N/A	NTSC, PAL
Rates	N/A	8 kbps - 2 Mbps
Outputs	N/A	Composite, S-Video
Audio Decoder	N/A	MPEG-4 - ISO / IEC 14496-3:2001, Low Complexity AAC
Mini-jack Outputs	N/A	Balanced or Unbalanced
Audio Decoder Sample Frequency	N/A	8Khz, 11.025Khz, 12Khz, 16Khz, 22.5Khz 24Khz, 32Khz, 44.1Khz, 48Khz

	MPEG-2	MPEG-4
Push	N/A	N/A
Server	Live Multicast: 2 destinations Live Streaming: N/A	Live Multicast: 2 destinations Live Streaming: 200 Concurrent Live Streams
Ethernet	10/100 Mbps Ethernet via RJ-45, Static or DHCP, Auto Sense Full / Half Duplex	10/100 Mbps Ethernet via RJ-45, Static or DHCP, Auto Sense Full / Half Duplex
Routing	None, Static, RIP V1, V2 (listener only, with ATM advertise or listen)	None, Static, RIP V1, V2 (listener only)
Streaming Protocols	Unicast / Multicast, UDP	Unicast / Multicast, UDP, IP, RTP, RTSP Interleave, RTCP, HTTP
Management Protocols	HTTP via Integrated Web Server, SNMP, Telnet, HTTP via SDK, Serial Port Command Line	HTTP via Integrated Web Server, SNMP, Telnet, HTTP via SDK, Serial Port Command Line
Maintenance Port	Serial port for local maintenance or data transport	Serial port for local maintenance or data transport
Hard Drive	60 GB (optional)	N/A
Control Port	RS 232 / 422 / 485 Serial Port for Data Transport	RS 232 / 422 / 485 Serial Port for Data Transport
IR Remote Control	IR Remote Control for Local Control and Configuration, Program Guide, Conference Guide, and Billboard	IR Remote Control for Local Control and Configuration, Program Guide, Conference Guide, and Billboard
Dimensions	Width: 8.75" (22.2cm) Height: 2.3" (5.8 cm) Depth: 12.5" (31.7 cm)	Width: 8.75" (22.2cm) Height: 2.3" (5.8 cm) Depth: 12.5" (31.7 cm)
Weight	Approximately 7 lbs (3.2 Kg)	Approximately 7 lbs (3.2 Kg)
Temperature Range	32° to 158° F (0° to 70° C) VBSTAR: 32° to 113° F (0° to 45° C) Operating Humidity up to 90% Non-Condensing	32° to 158° F (0° to 70° C) VBSTAR: 32° to 113° F (0° to 45° C) Operating Humidity up to 90% Non-Condensing
Power Supply Input	100 to 240 VAC, 50 / 60 Hz	100 to 240 VAC, 50 / 60 Hz
Power Supply Output	+24V up to 3.0 A	+24V up to 3.0 A
Regulatory	FCC Part 15, UL, CE	FCC Part 15, UL, CE
Relay	Dry Contact, 75mOhms 2 A @ 30 VDC, 0.3 A @ 110 VDC, 0.5 A @ 125 VDC	Dry Contact, 75mOhms 2 A @ 30 VDC, 0.3 A @ 110 VDC, 0.5 A @ 125 VDC
LCD	32 Character Display (16x2), Backlit	32 Character Display (16x2), Backlit
LED Status	Power In (24 VDC), Activity, Link, 10/100	Power In (24VDC), Activity, Link, 10/100
SDK	Allows third party developers and integrators to create custom applications and systems that incorporate video	Allows third party developers and integrators to create custom applications and systems that incorporate video

