

## Industry leading networked video appliances

Delivering Windows Media® video and audio has never been easier. Whether it's corporate training, a new product launch, or a dean's speech at graduation, VBrick's WM Appliance enables video delivery over your enterprise network or the Internet.



### Capabilities

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

**Encoding** – Digitize and compress a video signal for delivery over an IP network

**Serving** – Serve up to 200 live unicast streams or 20 on-demand streams

**Multicasting** – Multicast a live video directly from the appliance

**Pushing** – Push up to 25 simultaneous streams to VBricks or Windows Media Servers

**Reflecting** – Receive a live stream over the network and deliver it locally via unicast or multicast

The Reflector functionality allows a WM Appliance to receive video over a low bandwidth link and retransmit onto a local area network. This important feature allows the VBrick to bridge low bandwidth bottlenecks by only delivering one video stream over the low bandwidth link and then delivering video to multiple end users at the far end.

**Recording** – Record video that is being encoded or received over the network (requires optional hard drive)

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

**Multi Bit Rate (MBR) Encoding** – Each encoder can support up to 3 video and 3 audio rates

**16:9 Support** – Video can be encoded and streamed in native 16:9 resolution for widescreen display

**Closed Captioning Support** – Captioning information can be encoded with the video or users can insert captioning information in real time

### Benefits

- Integrates seamlessly into existing Windows Media deployments
- Combines multiple capabilities into a single appliance
- Easy to configure and use – stream video in a matter of minutes
- Streams to publishing points via push or pull
- Portable solution is ideal for webcasting special events
- Much lower delay (3-5 seconds) than with PC-based systems
- No desktop download necessary – streams directly to Windows Media Player

### Models

Windows Media

9190-4200 – Single Channel Encoder

9190-4300 – Dual Channel Encoder

Windows Media/MPEG-2

9180-4300 Dual Channel Multi-Format Encoder

9180-6200 Dual Channel Transcoder

(Windows Media Encoder/MPEG-2 Decoder)

Windows Media/MPEG-4

9150-4300 Dual Channel Multi-Format Encoder

Windows Media Options

SDI inputs

Hard Drive

### Compatibility

- IGMP v3
- SNMP v3
- Windows Media Player
- Microsoft Silverlight Player - NEW
- StreamPlayer WM for Mac and Linux - allows Windows Media video and audio (including multicast) to be displayed on Macs and Linux PCs

### Interoperability

- EtherneTV Suite – Portal Server, Scheduler, and Network Video Recorder
- EtherneTV WM IPR - low cost Windows Media video decoding
- VBrick VOD-WM Windows Media Video On-Demand Server
- VBrick Audiomate microphone

## Features and Specifications

### Video Encoder

- WM9 Encoding
- Format: NTSC, PAL
- 4:3 Aspect Ratio Resolutions: 640 x 480, 640 x 240, 320 x 480, 512 x 384, 400 x 300, 320 x 240, 240 x 180, 160 x 120
- 16:9 Aspect Ratio Resolutions: 640 x 360, 640 x 180, 384 x 216 (NTSC only), 512 x 288 (PAL only), 256 x 144, 128 x 72
- Video Frame Rates: 1, 7.5, 10, 15, 30 fps (NTSC) 1, 5, 10, 12.5, 25 (PAL)
- Constant Bit Rate / Constant Frame Rate
- Constant Bit Rate / Variable Frame Rate
- User defined key frame interval
- Rates: 20 Kbps - 4 Mbps
- Closed caption, Line 21 Passthrough, or user inserted
- Multi Bit Rate (MBR) encoding – up to three profiles
- Metadata insertion and scripting
- JPEG image capture - Capture JPEG images every 1 to 600 seconds
- Inputs: Composite or S-Video (SDI optional)

### Audio Encoder

- WM8 Encoding
- Sample Frequency 8 Khz to 48 Khz
- Rates: 5 Kbps to 192 Kbps
- Audio Modes: Stereo, Mono 1 (L+R), Mono 2 (Left only)
- Inputs: Unbalanced Input: Audio via Minijack. Balanced Input: Audio via Minijack or Microphone DIN

### Push

- Up to 25 concurrent HTTP pushes to VBrick Appliances or Windows Media <sup>®</sup> Servers

### Server

- Live multicast server
- Live streaming server - up to 200 concurrent live streams
- On-demand server - up to 20 concurrent on demand streams

### Ethernet Network

- 10/100 Mbps Ethernet via RJ-45, Static, or DHCP
- Auto sense Full / Half duplex

### Reflector

- Receive a stream over the network and retransmit

### Protocols

- Unicast / Multicast, DiffServ (QoS), UDP / IP / RTSP / HTTP / ASF

### Maintenance Port

- Serial port for local maintenance or data transport

### Control Port

- Serial port for data transport

### IR Remote Control

- IR Remote Control for local control and configuration

### Dimensions

- W 8.75" x H 2.3" x D 12.5" (W 22.2 cm x H 5.8 cm x D 31.7 cm)

### Weight

- Approx. 3.2 Kg (7 lbs)

### Temperature Range

- Operating: 0° to +70° Celsius, operating humidity up to 90% non-condensing
- Non-operating: -10° to +70° Celsius

### Power Supply

- Input: 100 to 240VAC, 50 / 60 Hz
- Output: +24V up to 3.0A

### Regulatory

- FCC Part 15, UL, CE

### Relay

- Dry contact, 75mOhms, 2A @ 30VDC, 0.3A @ 110VDC, 0.5A @ 125VDC

### LCD

- 32 Character display (16x2), backlit

### LED Status

- Power In (24VDC), Activity, Link, 10/100

### SDK

- Allows third party developers and integrators to create custom applications and systems that incorporate video