VBrick APPLIANCE
H.264 APPLIANCE

The Next Generation of VBrick's Networked Video Appliances

Built on a completely redesigned architecture, VBrick H.264 appliances represent our newest networked video products. Capable of supporting both standard definition and high definition video delivery, the H.264 product family expands VBrick's market leadership by continuing to deliver on its heritage of providing reliable, flexible, portable, scalable, and manageable networked video appliances.

Organizations can now deliver video in a wide range of quality - from 3G to HD - over any network infrastructure. The new H.264 appliances promise vastly improved quality to deliver an even better customer experience for any given bandwidth.

Models

Standard Definition

7000 Series standard definition appliances
7101 H industrial class, 1 RU high
7102 H enterprise class

High Definition ready

7000 HD Series high definition appliances
7101 H-HD industrial class, 1 RU high
7102 H-HD enterprise class

Compatibility

- Windows Media® Player (via VBrick player plug-in)
- QuickTime Player (Windows and Mac)
- IGMP v3
- SNMP v3

Interoperability

- EtherneTV Suite – Portal Server, Scheduler, and Network Video Recorder
- VBrick VOD-W MPEG and H.264 Video On Demand Server

Capabilities

VBrick's H.264 appliances are the first in a line of products that will be delivered on VBrick's new architecture. These appliances provide the following capabilities:

High Definition Video – For the first time, the new appliances support high definition video resolutions for incredible quality video at bandwidths of 1 Mb/sec and up (requires HD version)

Standard Definition Video – For lower bandwidth applications, video can still be delivered in standard definition with resolutions up to D1

Encoding – Digitizes and compresses a video signal for delivery over an IP network in the H.264 video format

Multicasting – Multicast a live video directly from the appliance

Serving – Serve live unicast streams via RTSP

Front Panel Display and Management – For ease of configuration and quick parameter changes (certain models)

Remote Management – Complete remote configuration and management via web-based interface, web services, command line interface, or SNMP

Benefits

- High Definition video provides a more engaging user experience which increases viewership and retention
- Bandwidth flexibility allows the VBrick to stream video over virtually any network environment - including wireless and satellite networks
- Vastly improved quality for any given bit rate
- Unparalleled reliability - reduces administrative costs and increases usage and ROI
- Compact and quiet
- End-to-end solution when combined with VBrick's EtherneTV solution
- Combines multiple capabilities into a single appliance
- Easy to configure and use – streaming in a matter of minutes
- Portable solution is ideal for webcasting special events

Features and Specifications

Video Encoder (Standard Definition)
- H.264 Encoding
- Input format: NTSC, PAL
- 4:3 Aspect Ratio Resolutions: D1, SIF (NTSC), QSIF (NTSC), CIF (PAL), QCIF (PAL), 400x304, 384x288 (PAL), 640x480, 320x240, 128x96, 192x144
- 16:9 Aspect Ratio Resolutions: 656x368, 512x288 (PAL), 256x144
- Video Frame Rates: 0.5, 1, 2, 3, 5, 6, 7.5, 10, 15, 30 fps (NTSC) 0.5, 1, 2.5, 5, 12.5, 25 (PAL)
- Constant Bit Rate / Constant Frame Rate
- User-defined key frame interval
- Rates: 32 Kbps - 10 Mbps
- Inputs: Composite, S-Video, or SDI (SDI input only available on the High Definition models)
- Rate control
- Deblocking filter
- Main profile
- Baseline profile

Video Encoder (High Definition)
- H.264 Encoding
- High Definition input formats: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p
- 16:9 Aspect Ratio Resolutions: All standard definition resolutions listed above, plus 480i/p (720x480), 576i/p (720x576), 720p (1280 x 720)
- Video Frame Rates: 0.5, 1, 2, 3, 5, 6, 7.5, 10, 15, 30 fps (NTSC) 0.5, 1, 2.5, 5, 12.5, 25 (PAL)
- Constant Bit Rate / Constant Frame Rate
- User-defined key frame interval
- Rates: 32 Kbps - 10 Mbps
- Inputs: 3G-SDI, HD-SDI, HDMI, and Component
- Rate control
- Deblocking filter
- Baseline profile

Audio Encoder
- AAC-LC and AAC-HE Encoding
- Sample Frequency 8 Khz to 48 Khz
- Rates: 8 Kbps to 256 Kbps
- Audio Modes: Stereo, Mono
- Inputs: Unbalanced, balanced, and microphone via Minijack. Audio inputs can also come through the HDMI, HD-SDI, or SDI inputs (HDMI and SDI inputs available on High Definition models)

Push
- Multiple concurrent unicast and multicast destinations

Server
- Live multicast server
- Live streaming server - up to 200 concurrent live streams

Ethernet Network
- 10/100/1000 Mbps Ethernet via RJ-45, Static, or DHCP
- Auto sense Full / Half duplex

Protocols
- Unicast / Multicast, DiffServ (QoS), UDP / IP / RTSP / RTCP RTP / HTTP / RTSP Interleave / IGMP

Maintenance/Control Port
- Serial port for local maintenance or data transport

USB Port
- 1 USB port

Dimensions
- Model 7101H and 7101 H-HD: W 7.8" x H 1.75" x D 9.2" (W 19.8cm x H 4.5cm x D 23.4cm)
- Model 7102H and 7102 H-HD: W 8.1" x H 3.0" x D 9.5" (W 20.6cm x H 7.6cm x D 24.1cm)

Weight
- Approximately 1.5 – 3 lbs depending on model

Temperature Range
- Operating: 0° to +70° Celsius

Power
- Input: 100 to 240 VAC, 50 / 60 Hz, 45 Watts, 12V DC, 4A

Regulatory
- FCC Part 15, UL, CE

LCD
- 80 Character display (20x4), backlit

LED Status
- Power In (12VDC)