



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 reliable, flexible, portable, scalable, and manageable networked video appliances.

Organizations can now stream video in a wide range of quality - from 3G to HD - over any network infrastructure. The new H.264 appliances continue VBrick's heritage of delivering superior customer experiences at any given bandwidth.



Models

BPS Class Appliances

BPS 7111 H Industrial Standard Definition Appliance

BPS 7121 H Industrial Standard Definition Appliance with Enhanced I/O

BPS 7112 H Enterprise Standard Definition Appliance

BPS 7122 H Enterprise Standard Definition Appliance with Enhanced I/O

XPS Class Appliances

XPS 7101 H Industrial MBR-Ready Standard Definition Appliance

XPS 7102 H Enterprise MBR-Ready Standard Definition Appliance

HPS Class Appliances

HPS 7101 H-HD Industrial High Definition Appliance

HPS 7102 H-HD Enterprise High Definition Appliance

Options

71x1 HS Industrial Models: 160G Solid State Storage

71x2 HS Enterprise Models: 500G Hard Drive

Compatibility

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

Interoperability

- VEMS Standard Edition
- VEMS Professional Edition
- VEMS Enterprise Edition
- VEMS Scheduler
- VEMS Channel Guide
- VEMS NVR 10 and NVR 40
- HD Set Top Box
- VBrick VOD-W MPEG and H.264 Video On Demand Server
- H.264 Decoders

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 720p and 1080p (with future firmware upgrade) 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 H.264 appliance 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 VEMS 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 (720x480, 720x576), 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)
- Closed Captioning
- Constant Bit Rate / Constant Frame Rate
- User-defined key frame interval
- Rates: 32 Kbps - 10 Mbps
- Inputs: Composite, S-Video, SDI, component video, and HDMI available on Enhanced I/O 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 960 x 544, 720p (1280 x 720), 1080p (1920 x 1080, future with software upgrade)
- Video Frame Rates: 0.5, 1, 2, 3, 5, 6, 7.5, 10, 15, 30 fps (NTSC), 60 fps (720p only), 0.5, 1, 2.5, 5, 12.5, 25 (PAL), 50 fps (720p only)
- 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)

Storage

- (functional with upgrade to firmware release 3.0)
- 160G Internal Solid State storage on Industrial HS models
- 500G Internal Hard Drive on Enterprise HS models

KLV Metadata

- ESD in line 21 passed through as CC
- ESD in line 21 converted to LDS and multiplexed into transport stream
- LDS received over the serial port and multiplexed into transport stream

Push

- Multiple concurrent unicast and multicast destinations
- Automatic Unicast/RTSP Announce

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

Traffic Shaping

- RTP Metering
- CBR Transport Stream
- VBR Transport Stream with configurable latency

Protocols

- Unicast / Multicast, DiffServ (QoS), UDP / IP / RTSP / RTCP / RTP / HTTP / RTSP Interleave / IGMP / MPEG2 Transport Stream / Automatic Unicast (RTSP ANNOUNCE) / HTTPS Management / SSH

Maintenance/Control Port

- Serial port for local maintenance or data transport

USB Port

- 1 USB port

Dimensions

- 71x1 Models:
W 7.8" x H 1.75" x D 9.2" (W 19.8cm x H 4.5cm x D 23.4cm)
- 71x2 Models:
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)

