

HDbridge3000 Chassis

HD DIGITAL ENCODER/MODULATOR



High-Density Video Distribution

The HDbridge3000 provides a highly flexible solution for delivery of cable, satellite, and IPTV video content all within a compact 3RU footprint. HD and SD video can be simultaneously output in both RF and IP formats.

The flexible, modular design of the chassis provides 12 media slots with the flexibility to mix-and-match HDMI, component, and composite cards, making it ideal for professional-grade video distribution. Adjustable rack ears can be moved to either the front or rear of the unit, allowing front-facing or rear-facing media modules and power supplies. What's more, if an existing media module is replaced with the same type of module, it is automatically programmed by the control module to use the same settings as the previous module, saving valuable time, and eliminating expensive truck rolls.

Feature Summary

- Compact 3RU form-factor
- 12 media module slots for delivery any type of content regardless of source inputs
- Simultaneous video output in both RF over coax and IP over CATx
- Up to 24 channels of HD content or 72 channels of SD content
- Zero downtime with fully redundant and hot-swappable media modules, fans, and power supplies
- No active components on the backplane means higher reliability
- Configured and maintained using ZeeVee's Maestro management platform
- Distribute video over RF to an unlimited number of displays leveraging the QAM tuner in the TV
- LCD panel on control module displays on-site status and configuration information
- ZvEAS connects to national EAS and allows for local emergency message information
- Playback custom content using the ZvShow channel
- Ease of management with Maestro management platform

Module Features

HDb3000 - 3KHVE2R (HDMI)

- 2 channels of HDMI encoding and modulation (QAM), delivers up to 24 channels per chassis
- 2 channels of IP stream generation*
- Includes ZvShow bonus channel with over 4GB of internal storage
- 2 channels of independent delayed matched audio

HDb3000 - 3KSVE6R (Composite)

- 6 channels of SD encoding
- 4 channels of IP stream generation*
- Advanced 3D filtering
- Dry contact closure support for EAS trigger

HDb3000 - 3KAVE2R7 (720p YPbPr) & 3KAVE2RH (1080p YPbPr)

- 2 channels of component encoding and modulation (QAM) delivers up to 24 channels per chassis
- 2 channels of IP stream generation*
- Includes ZvShow bonus channel with over 4GB of internal storage
- 2 channels of independent delayed matched audio
- Closed captioned capability
- Content controls

Chassis Specifications*

General	
Model Name / Part Number	HDB3KR-NA
Power	100 ~ 240 V AC 50/60 Hz, 300 W capacity, IEC 60320-C14 jack
Cooling	Four (4) hot swappable, N+1 redundant, high-capacity cooling fans, front inlet, rear exhaust
Operating Temperature	+32 °F to +113 °F (0 °C to +45 °C)
Mounting	Standard 19-inch equipment rack mounting Height: 3 standard rack units Front or rear mountable rack ears
Dimensions (W x H x D)	17.4" x 5.1" x 14.75" (441 mm x 129 mm x 374 mm)
Shipping Weight	29.5 lbs (13.4 kg), includes packaging
Warranty	5 Years
Modulator	
Modulation Types	QAM 256 and 64 (ITU-T J83 Annex B) Interleaving modes: (64,2) only
Cable Plan Standard	Standard, HRC, or IRC
Frequency Range	Frequency agile QAM RF CATV from 54-864MHz (Channels 2-135)

Chassis Specifications (continued)*

Modulator	
Quality	2kHz resolution, +/- 30 PPM accuracy, +/- 35 PPM stability
Output Level Adjust	25 - 50 dBmV in 1 dBmV steps
MER	> 39 dB, typical
Control Setup	
User Interface	ZeeVee Maestro
Network Interface	10/100/1000 Mb Ethernet via RJ45 connection

Media Module Specifications*

HDMI	
Part Number	3KHVE2R
Dimensions (W x H x D)	0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)
Video Interface	2 x HDMI v1.3 Type-A, 19-pin, female
ZvShow - Extra Digital Channel	4 GB video loop in MPEG2 PS format
Digital Audio	PCM format or Dolby® Digital audio as part of HDMI 1.3 ports
Analog Audio	2 x 3.5 mm female jacks
Average Encoding Data Rate	18 Mb/s per channel
Encoding Latency	Programmable, 200 ms - 400 ms
Delayed Match Audio Output	2 ports of delay-matched audio
Modulation Types	Module generates up to 2 RF channels

YPbPr (1080i)	
Part Number	3KAVE2RH
Dimensions (W x H x D)	0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)
Video Interface	2 x 13-pin, DIN
ZvShow - Extra Digital Channel	4 GB video loop in MPEG2 PS format
Digital Audio	S/PDIF input, supports PCM or Dolby® Digital audio
Analog Audio	L/R stereo line-level input
Average Encoding Data Rate	18 Mb/s per channel
Encoding Latency	Programmable, 200 ms - 400 ms
Delayed Match Audio Output	2 ports of delay-matched audio
Modulation Types	Module generates up to 2 RF channels

Media Module Specifications (continued)*

YPbPr (720p)	
Part Number	3KAVE2R7
Dimensions (W x H x D)	0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)
Video Interface	2 x 13-pin, DIN
ZvShow - Extra Digital Channel	4 GB video loop in MPEG2 PS format
Digital Audio	S/PDIF input, supports PCM or Dolby® Digital audio
Analog Audio	L/R stereo line-level input
Average Encoding Data Rate	18 Mb/s per channel
Encoding Latency	Programmable, 200 ms - 400 ms
Delayed Match Audio Output	2 ports of delay-matched audio
Modulation Types	Module generates up to 2 RF channels

Composite	
Part Number	3KSVE6R
Dimensions (W x H x D)	0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)
Video Interface	6 x Composite, 3.5 mm
ZvShow - Extra Digital Channel	N/A
Digital Audio	N/A
Analog Audio	Each 3.5 mm A/V jack supports L/R stereo line-level audio
Average Encoding Data Rate	18 Mb/s per channel
Encoding Latency	Programmable, 200 ms - 400 ms
Delayed Match Audio Output	N/A
Modulation Types	Module generates up to 2 RF channels



*For additional specifications please refer to the HDbridge3000 product page on zeevee.com.