HDb3000 Series

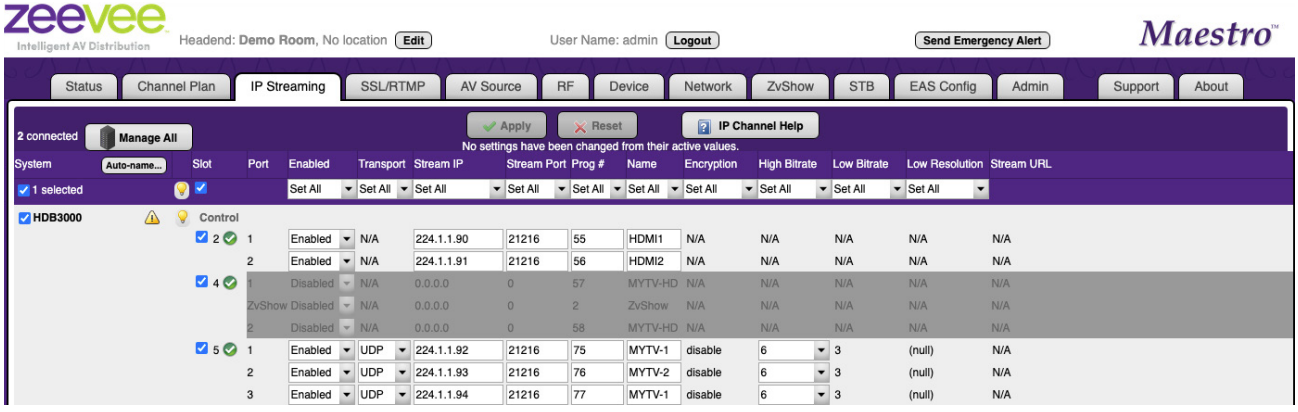
Flexible AV Distribution over RF & IP

Ideal for organizations looking for an easy and affordable way to create a digital head-end for distributing large numbers of AV sources to an unlimited amount of displays, the HDbridge3000 provides a reliable way to deliver multiple channels of video simultaneously within a compact 3RU footprint. Whether you are distributing SD or HD content, over RF or IP, the ZeeVee HDbridge 3000 provides the flexibility needed.

The HDbridge3000 is modular with hot-swappable cards, allowing you to mix and match cards with different interfaces and resolution as needed. Populate the chassis with up to 72 channels of SD over RF, 24 channels of HD over RF (with the optional IP streams) or 48 channels of H.264 IP streams. Combine multiple HDbridge3000 units to increase the number of channels.

HIGHLIGHTS

- Compact 3RU form-factor
- 12 x media module slots for delivery of any type of content regardless of source inputs
- Simultaneous video output in RF over coax and IP over Ethernet (not available from Composite or H.264 cards)
- Zero downtime with fully redundant and hot-swappable media modules, fans, and power supplies
- Mix and match media modules
- Emergency Alert System support (EAS)
- Web-based configuration and management
- Distribute video over RF (QAM or DVB-T/C) to an unlimited number of TVs
- Playback custom content using the ZvShow channel (not available with IP or Composite cards)

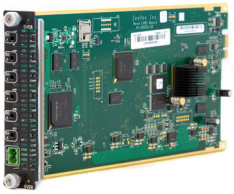


HDb3000 Series Web-based Adminstration Interface

HDbridge 3000 Media Module Blades

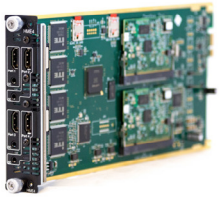
HDbridge 3000 Media Module Blades

HDbridge3000 Chassis
The chassis includes 1 Control Module for configuration/ management, 2 hot-swappable power supplies with cords, 4 hot-swappable fans and 12 blank faceplates covering empty slots.
Part # HDB3KR-NA



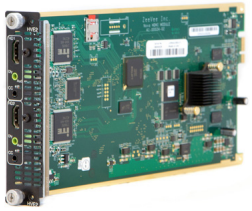
Composite Media Module

This media module outputs six SD signals in QAM or DVB-T/C delivered over an RF network.
Part # 3KSVE6R- RF Only Output



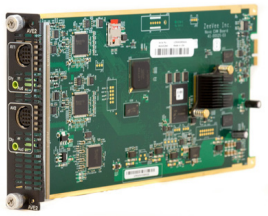
H.264 Media Module

Stream four channels of 480i/p, 720i/p or 1080i/p h.264 content over an IP network.
Part # 3KHXM4i - IP Only Output



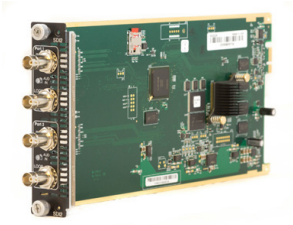
HDMI Media Module

Output two channels of up to 1080p HDMI encoding/ modulation HD in QAM or DVB-T/C delivered over an RF network — with optional simultaneous IP out.
Part# 3KHVE2R - RF Only Output
Part# 3KHVE2i - RF & IP Output



Component/VGA Media Module

Output two channels of up to 1080p YPbPr and VGA HD content in QAM or DVB-T/C delivered over an RF network — with optional simultaneous IP out.
Part # 3KAVE2RH - 1080i/p RF Only Output
Part # 3KAVE2IH - 1080i/p RF & IP Output
Part # 3KAVE2R7 - 720p RF Only Output



H.264 Media Module

Output two channels of up to 1080p unencrypted HDMI encoding/ modulation HD in QAM or DVB-T/C delivered over an RF network — with optional simultaneous IP out.
Part # 3KSDI2R -RF Only Output
Part # 3KSDI2Ri - RF & IP Output

Chassis Specifications

General	
Model Name / Part Number	HDB3KR-NA Temperature/Humidity: Operating +32 F^0 to +113 F^0 (0 C^0 to +45 C^0) / 10% to 80%, non-condensing
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 ex- haust
Operating Temperature	+32 oF to +113 oF (0 oC to +45 oC)
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) or DVB-T, DVB-C (ITU-T J83 Annex A) (varies by region)
Cable Standard	QAM Standard, HRC, or IRC / DVB-T & DVB-C User defined (varies by region)
CCIR Frequency Range	Frequency agile QAM RF CATV from 54-864 MHz, (Channels 2-135) Frequency must be within 400 Mhz band within the chassis Frequency agile CCIR Channels 21-79, 57 MHz - 900 MHZ
Quality	2kHz resolution, +/- 30 PPM accuracy, +/- 35 PPM stability
Output Level Adjust	34-13 dBmV in 1 dBmV steps
MER	> 39 dB, typical
Control Setup	
User Interface	ZeeVee Maestro

Media Module Specifications

General	COMPONENT (YPbPr)/ VGA (1080i/p): 3KAVE2RH (RF out) and 3KAVE2IH (RF and IP out)
Dimensions (W x H x D) **0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)**	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**	Video Interface 2 x 13-pin, DIN
ZvShow - Extra Digital Channel **2 GB video loop in MPEG2 Program Stream format (3KHVE2R only)**	ZvShow - Extra Digital Channel 2 GB video loop in MPEG2 Program Stream format (3KAVE2RH only)
Digital Audio **PCM format or AC-3 audio as part of HDMI 1.3 ports**	Digital Audio S/PDIF input, supports PCM or AC-3 audio
Analog Audio **2 x 3.5 mm female jacks**	Analog Audio L/R stereo line-level input
Average Encoding Data Rate **18 Mb/s per channel**	Average Encoding Data Rate 18 Mb/s per channel
Encoding Latency **Programmable, 200 ms - 400 ms**	Encoding Latency Programmable, 200 ms - 400 ms
Delay Matched Audio Output **2 ports of analog delay-matched audio (requires analog audio input)**	Delay Matched Audio Output 2 ports of analog delay-matched audio (requires analog audio input)
Modulation Types **Module generates 2 RF channels (MPEG2, UDP unicast or multcast streams- IP output)**	QAM 256 and 64 (ITU-T J83 Annex B) or DVB-T, DVB-C (ITU-T J83 Annex A) (varies by region)

COMPONENT (YPbPr)/VGA (720p): 3KAVE2R7 (RF output)	COMPOSITE: 3KSVE6R (RF output)
Dimensions (W x H x D) 0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)	**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	**Video Interface** 6 x Composite, 3.5 mm (Requires ZeeVee CAVC6 3.5mm to composite break out cable)
ZvShow - Extra Digital Channel 2 GB video loop in MPEG2 Program Stream format	**ZvShow - Extra Digital Channel** N/A
Digital Audio S/PDIF input, supports PCM or AC-3 Digital audio	**Analog Audio** Each 3.5 mm A/V jack supports L/R stereo line-level audio
Analog Audio L/R stereo line-level input	**Average Encoding Data Rate** 18 Mb/s per channel
Average Encoding Data Rate 18 Mb/s per channel	**Encoding Latency** Programmable, 200 ms - 400 ms
Encoding Latency Programmable, 200 ms - 400 ms	**Delay Matched Audio Output** N/A
Delay Matched Audio Output 2 ports of analog delay-matched audio (requires analog audio input)	**Modulation Types** Module generates 2 RF channels
Modulation Types Module generates 2 RF channels	

HDSDI: 3KSDI2R (RF output) and 3KSDI2Ri (RF and IP output)	HDMI: 3KHXM4i (IP output)
Dimensions (W x H x D) 0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)	**Dimensions (W x H x D)** 0.85" x 5.0" x 11.0" (21 mm x 127 mm x 279 mm)
Video Interface Two ports of (HD/3G) Serial Digital Interface video (BNC, 75 ohm)	**Video Interface** 4 x HDMI v1.3 Type-A, 19-pin female
ZvShow - Extra Digital Channel 2 GB video loop in MPEG2 Program Stream format (3KSDI2R only)	**ZvShow - Extra Digital Channel** N/A
Analog Audio N/A	**Encoder Video Profile** H.264/MPEG-4 AVC
Closed Captioning N/A	**Encoder Audio Profile** MPEG1 Layer 2 (MP2), PCM
Average Encoding Data Rate 18 Mb/s per channel	**Analog Audio Input** Each 3.5mm jack supports L/R stereo line-level audio
Encoding Latency Programmable, 200 ms - 400 ms	**Color Profile** 4:2:0
Delay Matched Audio Output N/A	**Encoding Data Rate** Selectable from 1 to 10 Mbs per channel
Modulation Types Module generates 2 RF channels (MPEG2, UDP unicast or multcast streams - IP output)	**GOP Size** 30
	Encoding Latency 400 msec
	Modulation Types IP output only (UDP/RTP unicast or multicast streams, HLS, RTSP or RTMP unicast streams)

About ZeeVee

ZeeVee is a leading provider of AV distribution technology. The company has transformed the digital video industry with its award-winning encoders, decoders and software solutions for the pro AV and IT marketplace. Integrators and consultants rely on ZeeVee for its innovative, cost-effective and easy to install AVoIP and RF distribution platforms for their corporate, higher education, government, healthcare, casino, museum, hospitality and retail customers. A founding member of the SDVoE Alliance and a PSNI Global Alliance Preferred Vendor Partner, ZeeVee holds a GSA schedule, and its products are TAA-compliant. ZeeVee is headquartered in the greater Boston area with European HQ in Augsburg, Germany and SE Asian offices in Singapore.

For more information visit **www.zeevee.com**

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