

HDbridge 3000

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)

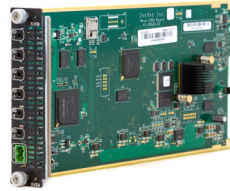
HDbridge 3000 Media Module Blades



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.

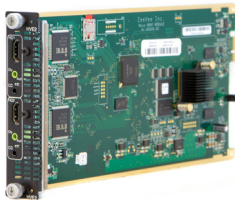
Part # 3KSVE6R- RF Only Output



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

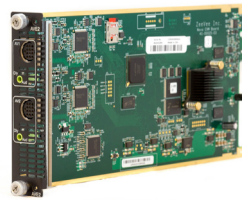


HDMI Media Module

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



HD-SDI 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

Hdb3000 Series Web-based Administration

[Status](#) [Channel Plan](#) [IP Streaming](#) [SSL/RTMP](#) [AV Source](#) [RF](#) [Device](#) [Network](#) [ZvShow](#) [STB](#) [EAS Config](#) [Admin](#) [Support](#) [About](#)

2 connected [Manage All](#) [Apply](#) [Reset](#) [IP Channel Help](#)

No settings have been changed from their active values.

System	Auto-name...	Slot	Port	Enabled	Transport	Stream IP	Stream Port	Prog #	Name	Encryption	High Bitrate	Low Bitrate	Low Resolution	Stream URL
1 selected														
<input checked="" type="checkbox"/> HDB3000														
Control														
<input checked="" type="checkbox"/>		1		Enabled	N/A	224.1.1.90	21216	55	HDMI1	N/A	N/A	N/A	N/A	N/A
		2		Enabled	N/A	224.1.1.91	21216	56	HDMI2	N/A	N/A	N/A	N/A	N/A
<input checked="" type="checkbox"/>		4		Disabled	N/A	0.0.0.0	0	57	MYTV-HD	N/A	N/A	N/A	N/A	N/A
				ZvShow Disabled	N/A	0.0.0.0	0	2	ZvShow	N/A	N/A	N/A	N/A	N/A
				Disabled	N/A	0.0.0.0	0	58	MYTV-HD	N/A	N/A	N/A	N/A	N/A
<input checked="" type="checkbox"/>		5		Enabled	UDP	224.1.1.92	21216	75	MYTV-1	disable	6	3	(null)	N/A
		2		Enabled	UDP	224.1.1.93	21216	76	MYTV-2	disable	6	3	(null)	N/A
		3		Enabled	UDP	224.1.1.94	21216	77	MYTV-1	disable	6	3	(null)	N/A

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) 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

HDMI: 3KHVE2R (RF out) and 3KHVE2i (RF and IP out)	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 multicast streams - IP output)	Modulation Types Module generates 2 RF channels (MPEG2, UDP unicast or multicast streams - IP output)

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 multicast 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)

ZeeVee, Inc., headquartered in Littleton, Mass., and founded in 2007, is a leading global developer of digital technology and products for distributing audio-video content from any source or multiple sources to any number of displays. Manufactured in the U.S. and used primarily in commercial and corporate applications, ZeeVee products are employed worldwide by major organizations in education, government, hospitality, retail, sports, entertainment, broadcasting, healthcare, housing, energy and other industries. For more information visit www.zeevee.com