![ZeeVee logo] **zeevee**™
Signal Intelligence

HDb2312-EU
Digital Encoder / Modulator

Perfect for distributing television programming or user-generated content to small displays that can't take full advantage of HD. The HDbridge 2300 series converts standard definition AV sources into an RF signal received a television's QAM (NA model) or DVB-T/C (EU model) digital tuner over coax cable. With its high 45 dBmv RF output, you can send your content to an unlimited number of displays over nearly any distance. You can change sources on any screen by merely changing the channel on the TV.

The HDBridge 2300 series is ideal for organizations looking for an affordable way to support a large number of displays with dynamic content such as sports bars, gyms, or schools. Multiple units can be combined to create a headend that will support over 100 channels on the RF network. This unit is designed primarily for high channel density environments where rapid deployment, advanced management, and compatibility are critical.

Superior Video Quality
• Full MPEG-2 implementation
• I, P, and B Frames
• Low latency
• Full motion estimation with a wide search range

Extensible Architecture
• Easy downloadable firmware updates
• Future enhancements provided regularly
• Emergency Alert System (EAS)

High Reliability
• Low-stress power system
• Full system instrumentation and monitoring
• Official international regulatory approval
• Forced air cooling for effective thermal control

Ease of Management
• Powerful, highly intuitive web interface
• On-site or remote management
• Configure/manage multiple units from
• Front Panel Display for local management

HDb2312-EU Web-based Adminstration Interface

General

Power: 100-240 VAC 50/60 Hz, 60W max. 30W Typical IEC 60320-C14	**Cooling:** Dual internal cooling fans, Front inlet, Rear exhaust	**Temperature/Humidity:** Operating +32 F0 to +113 F0 (0 C0 to +45 C0) / 10% to 80%, non-condensing
	MBTF: 62,000 hours	
Compliance: FCC Class A, IEC60065, EN61000 (see manual 70-00031-00), CE, RoHS, RCM C-Tick	**Enclosure Dimensions:** 43.6 mm (H) x 440.2 mm (W) x 251.5 mm (D) 1.72 in. (H) x 17.33 in. (W) (without rack mount ears) x 9.9 in. (D)	**Enclosure Type:** Metal
		System Weight: 2.84 kg (6.25 lbs.)
		Shipping Weight: 3.45 kg (7.6 lbs.)
Mounting: Rack ears shipped attached, 1RU high	**Carton Dimensions (individual):** 108 mm (H) 785 (mm) W 308 (mm) D 4.25 in. (H) 30.875 in. W 12.125 in (D)	**Warranty:** 5 Years
		Vibration: NSTA 1A in carton

Input

Composite Video x12 RCA connector, 75 Ohm 0 to 0.7v, 480i input 59.94 fields per second and 576i input 50 fields per second	**Computer VGA (Analog) x4 or x2:** HD-15 connector, 75 Ohm RGB 0 to 0.7V, Separate H and V sync	**Stereo Audio Input x12** RCA connector, 75 Ohm 0 to 0.7v, 480i input 59.94 fields per second and 576i input 50 fields per second

Video Encoder

Encoder Video Profile: MPEG2 HD: ISO13818-2 MainProfile@ HighLevel	**Traffic Shaping:** Variable Bit Rate	**Video Encoding Data Rates:** Variable, 2 Mbs - 12 Mbs per channel
Average Encoding Data Rate: 10-12 Mbs per channel	**Encoding Latency:** Programmable 200 msec to 400 msec	**Color Profile:** 4:2:0
Encoder Audio Profile: ATSC A/52,(AC-3)	**Video, Audio PID:** Programmable starting value	**Program Information:** Programmable pro-gram name, EIT
GOP Size: 15		

Modulator/Upverter

Modulation Types: DVB-T, DVB-C (ITU-T J83 Annex A) (varies by region)	**Cable Standard:** User defined (varies by region), CCIR	**Frequency Range:** 4 paired frequency agile CCIR Channels 21-79, 57 MHz - 900 MHZ • 2kHz resolution
Output Power: +45 dBmV typical	**Output Level Adjust:** 25 - 45 dBmV in 1dBmV steps	• +/- 30 ppm accuracy • +/- 35 ppm stability
I/Q Amplitude Imbalance: < 1% typical	**Spectral Tilt:** </= 1 dB over 6 MHz typical	**MER :** > 38 dB typical

Control Setup

Network Interface	10/100 Mb Ethernet via RJ45 connection IP address via DHCP or set by user HTML/Javascript served web interface for easy configuration Telnet connection for CLI scripting Easy firmware updates All settings saved in NV storage
Front Panel Color Display	Quickly obtain status at a glance, basic configurations, software revisions and updates

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**

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