

HDb2540 / HDb2520

HD DIGITAL ENCODER/MODULATOR

Headend Ready for High Density Distribution of HD Video and Digital Signage



Health Care



Assisted Living



MDUs

Superior Video Quality

- Full MPEG2 implementation
- I, P, and B Frames
- Low latency
- Full motion estimation with a wide search range

Ease of Management

- Powerful, highly intuitive web interface
- On-site or remote management
- Web accessible instrumentation and management
- Single session configures and manages all connected units
- Front Panel Display for on-site status and management at a glance

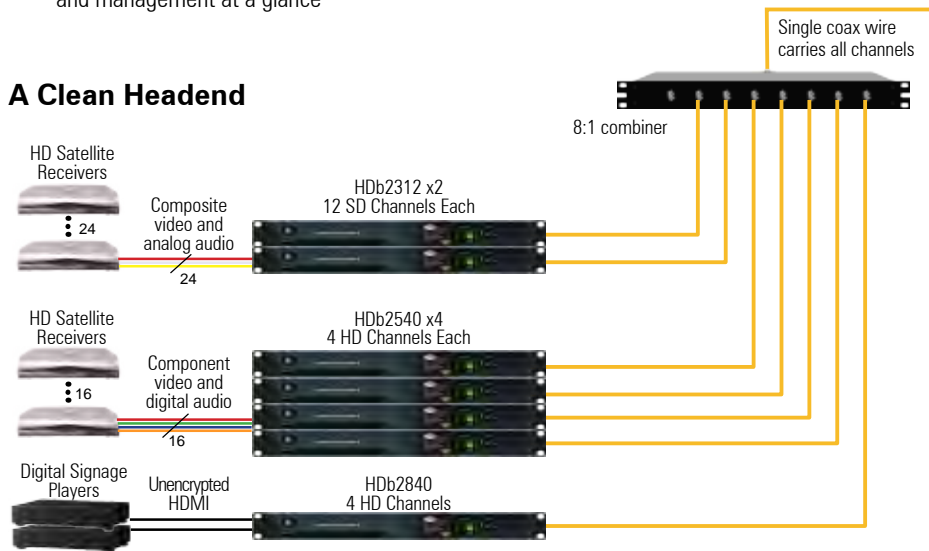
High Reliability

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

Extensible Architecture

- Easy downloadable firmware updates
- Future enhancements provided regularly
- Emergency Alert System (EAS)
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A Clean Headend



HDb2540
SERIES



HDb2540 / HDb2520

HD Digital Encoder / Modulator

HDbridge2000
SERIES



Rear Detail



Front Detail



ZvSync

ZvSync is a digital cable tuner with HDMI, composite, and analog RF outputs. Available in both DVB-T and QAM.

It's small, affordable, and can be used for:

- Projectors
- TVs Without Tuners
- Monitors



GENERAL	
Model Names	HDbridge Series 2000, HDb2540 HDb2520
Part Numbers	HDb2540-NA HDb2520-NA
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 F° to +113 F° (0 C° to +45 C°) / 10% to 80%, non-condensing
Vibration	NSTA 1A in carton
MTBF	62,000 hours
Compliance	FCC Class A, IEC60065, EN61000 (see manual 70-00031-00), CE, RoHS, RCM C-Tick
Enclosure Type	Metal
Mounting	Rack ears shipped attached, 1RU high
Enclosure Dimensions	1.72 in. (H) x 17.33 in. (W) (without rack mount ears) x 9.9 in. (D) 43.6 mm (H) x 440.2 mm (W) x 251.5 mm (D)
System Weight	6.25 lbs. (2.84 kg)
Carton Dimensions (individual)	4.25 in. (H) 30.875 in. W 12.125 in (D) 108 mm (H) 785 (mm) W 308 (mm) (D)
Shipping Weight	7.88 lbs. (3.58 kg) 3.58 kg (7.88 lbs.)
Warranty	5 years
VIDEO INPUT	
Component Video x4 or x2	DIN connector HDbridge end, RCA connectors for HD source up to 720p
Computer VGA (Analog) x4 or x2	HD-15 connector, 75 Ohm RGB 0 to 0.7V, Separate H and V sync
VGA Resolutions Supported	640x480, 720x480, 800x600, 1024x768, 1152x864, 1176x664, 1280x720, 1280x768, 1280x800, 1280x960, 1280x1024, 1360x768, 1440x900 at 60 70, 72, 75, 85 Hz. VGA resolutions are broadcast centered in the best vertical fit into 1920x1080p30 or 1280x720p60
Closed Caption	EIA/CEA-608 captions accepted over composite video input
Extra Digital Channel	MPEG2 Program stream file, up to 200 MB
AUDIO INPUT	
Stereo Analog and Digital Audio x4 or x2	Line level input per channel DIN connector HDbridge end, RCA connector or digital SPDIF audio input. 3.5 mm pigtail connector with VGA
VIDEO ENCODER	
Encoder Video Profile	MPEG2 HD: ISO13818-2 Main Profile @ High Level
Traffic Shaping	Variable Bit Rate
Video Encoding Data Rates	Variable, 10 Mbs - 24 Mbs per channel
Average Encoding Data Rate	18 Mbs per channel
Encoding Latency	Programmable 200 msec to 400 msec
Color Profile	4:2:0
GOP Size	16
Video, Audio PID	Programmable starting value
Program Information	Programmable program name, EIT
AUDIO ENCODER	
Encoder Audio Profile	ATSC A/52, Dolby® Digital (AC-3)
MODULATOR / UPCONVERTER	
Modulation Types	QAM 256 and 64 (ITU-T J83 Annex B) Interleaving modes: (64,2) only
Cable Standard	HRC, IRC or STD
Frequency Range	Up to 4 paired, frequency-agile QAM RF CATV Channels 2-135 <ul style="list-style-type: none"> • 2 kHz resolution • +/- 30 ppm accuracy • +/- 35 ppm stability
Output Power	+45 dBmV typical
Output Level Adjust	25 - 45 dBmV in 1dBmV steps
MER	> 38 dB typical
I/Q Amplitude Imbalance	< 1% typical
Spectral Tilt	< / = 1 dB over 6 MHz typical
CONTROL SET-UP	
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