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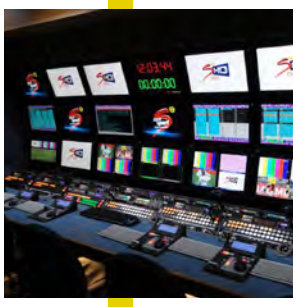
MODEL

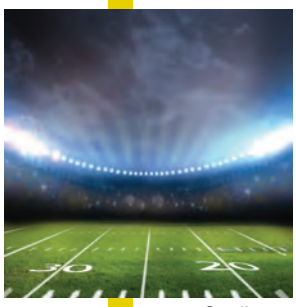
HDb2920

HD-SDI DIGITAL ENCODER/MODULATOR

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



Broadcast



Stadiums & Arenas

Security

Superior Video Quality

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

High Reliability

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

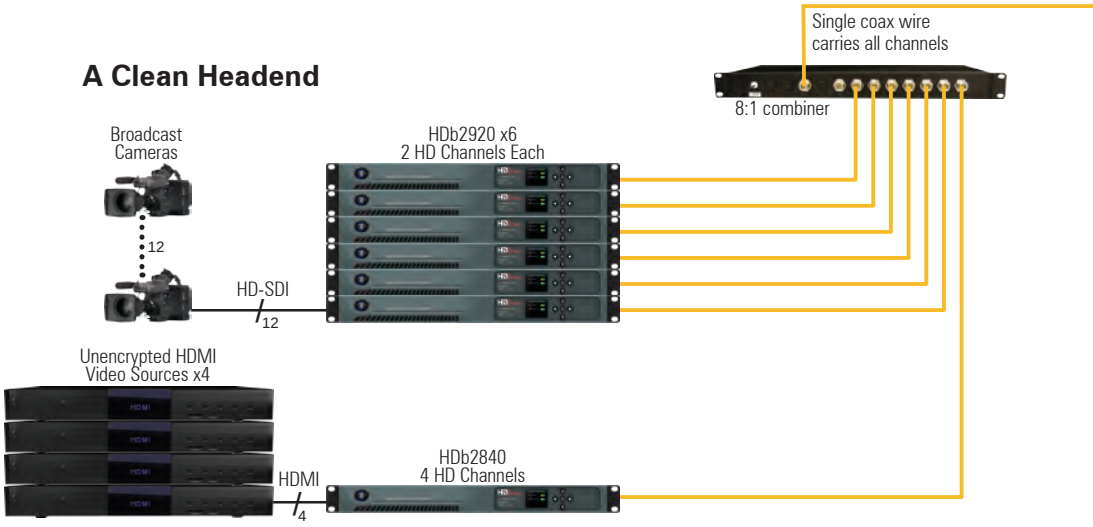
Ease of Management

- Powerful, highly intuitive web interface
- On-site or remote management
- 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

Extensible Architecture

- Easy downloadable firmware updates
- Future enhancements provided regularly
- Emergency Alert System (EAS)
- Bonus information channel for use with small video loops

A Clean Headend



HDbridge2000 SERIES

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HDb2920-NA

HD-SDI 2-Channel Digital Encoder / Modulator

HDbridge2000 SERIES

HDb2920 Rear Detail

HDb2920 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 Name	HDbridge Series 2000, HDb2920
Part Number	HDb2920-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 F⁰ to +113 F⁰ (0 C⁰ to +45 C⁰) / 10% to 80%, non-condensing
Vibration	NSTA 1A in carton
MTBF	62,000 hours
Compliance	FCC Class A, IEC60065, EN61000 (see Manual #70-00045), 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)
Weights	System: 6.5 lbs. (2.95 kg) | Shipping: 8.13 lbs. (3.69 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)
Warranty	5 years
VIDEO INPUT	
Serial Digital Interface	Two ports of (HD/3G) Serial Digital Interface video (BNC, 75 ohm)
Electrical Formats	SDI (SMPTE 259M), HD-SDI (SMPTE 292M), 3G-SDI (SMPTE 424M)
Supported Resolutions	480i (SDI, HD-SDI, 3G-SDI) 720p @ 59.94/60 Hz (HD-SDI, 3G-SDI) 1080i @ 59.94/60 Hz (HD-SDI, 3G-SDI) 1080p @ 23.98/24/29.97/30/59.94/60 Hz (3G-SDI), Embedded AC3 or PCM audio supported *(59.94/60 down-sampled for standard broadcast)*
Loop Through	Each SDI port has reclocked, amplified loop-through output
Closed Caption	EIA/CEA-608 captions accepted of CVBS composite port
Extra Digital Channel	MPEG2 Program stream file, up to 200 MB
AUDIO INPUT	
Digital Audio and Stereo Analog	Digital as element of SDI port or 3.5 mm stereo female, line level input per channel
Encoder Audio Profile	ATSC A/52, Dolby®Digital (AC-3)
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	15
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	2 independent, frequency agile CATV Channels placeable on Channels 2-135 • 2kHz 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

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