HDb2920-NA
HD-SDI Digital Encoder / Modulator
Headend Ready for High Density Distribution of HD Video and Digital Signage

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

Easy Setup
Simple Installation
Quick Rollout
It’s Done.
HDb2920-NA
HD-SDI 2-Channel Digital Encoder / Modulator

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 F to +113 F (0 C to +45 C) / 10% to 80%, non-condensing
Vibration: NIST 1A 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) x 9.9 in. (D)
Weights: System: 6.5 lbs. (2.95 kg) | Shipping: 8.13 lbs. (3.69 kg)
Carton Dimensions (individual): 4.25 in. (H) x 30.875 in. W x 12.125 in (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
- 24Hz 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