Simultaneously encodes two HD-SDI sources directly into an MPEG-2 IP network video stream as well as private RF channels that can be received by an unlimited number of HDTV displays.

For organizations looking to encode and modulate unencrypted HDMI sources cost-effectively, the HDBridge 2900 Series is a great option. This four channel encoder/modulator allows you to deliver HD video up to 1080p/i resolution to an unlimited number of displays over almost any distance.

SUPERIOR VIDEO QUALITY
- Full MPEG-2 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

EXTENSIBLE ARCHITECTURE
- Easy downloadable firmware updates
- Future enhancements provided regularly
- Emergency Alert System (EAS)

EASE OF MANAGEMENT
- Powerful, highly intuitive web interface
- On-site or remote management
- Configure/manage multiple units from front Panel Display for local management

The HDbridge 2900 series converts high definition AV sources into an RF signal received a television’s QAM 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.

MODELS:

HDb2920i-NA
2 HD-SDI video inputs with embedded digital audio inputs up to 1080i/1080p
### General

<table>
<thead>
<tr>
<th>Power: 100–240 VAC 50/60 Hz, 60W max.</th>
<th>Cooling: Dual internal cooling fans, Front inlet, Rear exhaust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical IEC 60320–C14</td>
<td>MBTF: 62,000 hours</td>
</tr>
<tr>
<td>Compliance: FCC Class A, IEC60065,</td>
<td>Compliance Dimensions: 1.72 in. (H) x 17.33 in. (W) (without rack mount ears) x 9.9 in. (D)</td>
</tr>
<tr>
<td>EN61000 (see manual 70-00031-00), CE, RoHS, RCM C-Tick</td>
<td>Enclosure Dimensions: 4.25 in. (H) 30.875 in. W 12.125 in (D) 108 mm (H) 785 (mm) W 308 (mm) (D)</td>
</tr>
<tr>
<td>Mounting: Rack ears shipped attached, 1RU high</td>
<td>Enclosure Type: Metal</td>
</tr>
<tr>
<td>Carton Dimensions (individual): 4.25 in. (H) 30.875 in. W 12.125 in (D) 108 mm (H) 785 (mm) W 308 (mm) (D)</td>
<td>Shipping Weight: 6.5 lbs. (2.95 kg)</td>
</tr>
<tr>
<td>Power: 100–240 VAC 50/60 Hz, 60W max.</td>
<td>Temperature/Humidity: Operating +32 F° to +113 F° (0 C° to +45 C°) / 10% to 80%, non-condensing</td>
</tr>
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### Encoder Video Profile:

- **MPEG2 HD**: ISO13818-2 MainProfile@HighLevel
- **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

### Serial Digital Interface:

- Two ports of (HD/3G) Serial Digital Interface video (BNC, 75 ohm)
- Supported Resolutions: 480i (SDI, HD-SDI, 3G-SDI) B27; 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 Hz (3G-SDI), Embedded AC3 or PCM audio supported (59.94/60 downsampled for standard broadcast)

### Video Encoder

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### Modulator/Upverter

- **Modulation Types**: QAM 256 and 64 (ITU-T J83 Annex B)
- **Interleaving modes**: (64,2) only
- **Output Power**: +45 dBmV typical
- **Output Level Adjust**: 25 - 45 dBmV in 1dBmV steps
- **I/Q Amplitude Imbalance**: < 1% typical
- **Spectral Tilt**: < = 1 dB over 6 MHz typical
- **MER**: > 38 dB typical
- **Frequency Range**: 4 paired, frequency agile QAM RF CATV Channels 2-135
- **Cable Standard**: HRC, IRC or STD
- **Firmware updates via**: Telnet connection for CLI scripting
- **Firmware updates stored**: All settings saved in NV storage
- **Front Panel Color Display**: Quickly obtain status at a glance, basic configurations, software revisions and updates

### 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
- **Easy firmware updates**: Telnet connection for CLI scripting
- **All settings saved in NV storage**: Easy firmware updates

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**About ZeeVee**

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](http://www.zeevee.com)

ZeeVee products are TAA Compliant. ZeeVee holds GSA Contract # 47QTCA19D00JZ.

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