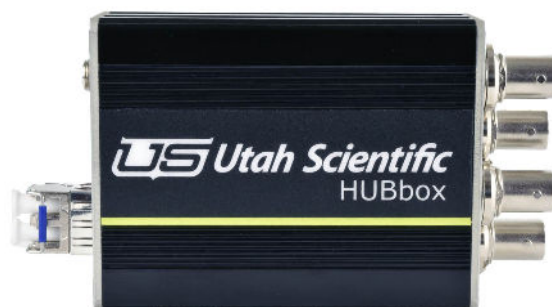


HUBbox™ NV30-R17

Single Channel 3G-/HD-/SD-SDI Optical Receiver for SMPTE 297-2006 video applications

Data Sheet



Description

Single Optical Fiber to SDI converter supports 3G-/HD-/SD-SDI and DVB/ASI. Support data rates from 2Mbps to 3Gbps.

The HUBbox™ comes equipped with AutoSFP® functionality, similar to the XFD line. This makes the HUBbox™ extremely flexible. Simply by replacing the SFP it can easily be changed into a dual receiver, dual transmitter or a transceiver. We've also added dual BNCs per channel to the design, giving dual outputs or loop-through.

It is housed in a compact and rugged aluminum case ideally suited to both studio and portable applications.

The HUBbox™ is perfect for use with an XFD system where one or two signals are required remotely.

Part Number Options

| Part Number | Temperature |
|-----------------|------------------------------------|
| HUBbox NV30-R17 | -4°F to +131°F (-20°C to +55°C) |

Features

- AutoSFP® functionality
- Dual output with reclocked SDI
- Multi-rate reclocking with automatic rate detection and automatic bypass for non-SDI data rates
- Automatic Cable Equalization
- LEDs display power and SDI lock status
- Locking DC jack
- Optical LC/PC connector
- PIN receiver technology
- Typical Link lengths at 2.97Gbps:
 - Up to 30km @ 9µm SMF
- Excellent performance with SDI-Checkfield test signal at SD-, HD- and 3G-SDI
- Use in conjunction with HUBbox™ NV30-T1310-05 or the XFD system for a complete fiber transmit/receive system

General Operating Conditions

| Parameter | Minimum | Typical | Maximum | Unit |
|-----------------------|---|---------|---------|------|
| Operating temperature | -4 | | +131 | °F |
| Supply voltage (Vcc) | 11 | | 27 | V |
| Dimensions | 2.5" x 3.3" x 1.2" (excluding connectors) | | | |
| Weight | 0.76 lb (145g) | | | |

Electrical Characteristics

| Parameter | Minimum | Typical | Maximum | Unit |
|---|---|---------|---------|------|
| Supported standards: | | | | |
| • SMPTE | 292M-2008, 259M-2008, 297M-2006, 424M-2006 | | | |
| • DVBAISI | EN50083-9 | | | |
| • Laser safety | Class 1 21CFR and IEC60825-1 | | | |
| Number of IN/OUT BNCs | 2 (transmitter input or receiver output). Only one can be used when single channel SFP is installed. | | | |
| Number of OUT BNC's | 2 (transmitter loop-through or receiver output). Only one can be used when single channel SFP is installed. | | | |
| Typical input cable length equalization | Up to 140m of Belden 1694A @ 2.97Gbps Up to 200m of Belden 1694A @1.485Gbps Up to 400m of Belden 1694A @270Mbps | | | |
| Output signal level | 800mVp-p \pm 10% | | | |
| Connectors | BNC | | | |
| Impedance | 75ohm | | | |
| Return loss | \geq 15 dB [5-1485 MHz], \geq 10dB [1485-2970MHz] | | | |
| LED Indicators | Power, SFP type and SDI lock | | | |
| Data rate | 2 | | 3000 | Mbps |

Receiver Optical Characteristics

| Parameter | Minimum | Typical | Maximum | Unit |
|--|--|---------|---------|------|
| Transmitting circuit fiber | Single Mode (9/125 μ m), Multi Mode compatible | | | |
| Receiver technology | PIN | | | |
| Optical input overload power | -3 | | | dBm |
| Optical receiver sensitivity @ 3Gbps (3G-SDI Checkfield, BER = 10^{-12} , TX _{EXT} \geq 7dB) | | -20 | -19 | dBm |
| Optical receiver sensitivity @ 1.5Gbps (HD-SDI Checkfield, BER = 10^{-12} , TX _{EXT} \geq 7dB) | | -22 | -20 | dBm |
| Optical receiving window | 1260 | | 1620 | nm |

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Contact Us

Learn more at www.utahscientific.com



Email: info@utahscientific.com
Support: service@utahscientific.com
Sales: sales@utahscientific.com
Phone: 801.575.8801

Utah Scientific
 4750 Wiley Post Way, Suite 200
 Salt Lake City, Utah, 84116, USA
 U.S. and Canada Toll Free: 800.453.8782