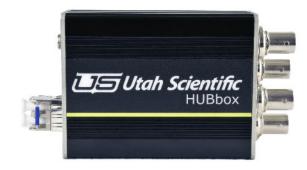


HUBbox™ 12G NV120-R14-R14

Dual Channel Optical Receiver for UHDTV Video applications

Data Sheet



Description

Dual Optical Fiber to 12G-SDI converter supports 12G-/6G-/3G-/HD-/SD-SDI. Supports data rates from 270Mbps to 11.88Gbps.

The HUBbox™ 12G comes equipped with AutoSFP® functionality, similar to the XFD line. This makes the HUBbox™ 12G extremely flexible. Simply by replacing the SFP, it can easily be changed into a dual transmitter or a transceiver. We've also added dual BNCs per channel to the design, giving dual outputs or loop-trough.

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

The HUBbox™ 12G is perfect for using with an XFD system where one or two signals are required remotely.

Part Number Options

Part Number	Temperature
HUBbox 12G NV120-R14-R14	-4°F to +131°F (-20°C to +55°C)

Features

- AutoSFP® functionality
- Supports 4k and 8k UHDTV
- 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 11.88Gbps:
 - Up to 10km @ 9μm SMF
- Excellent performance with SDI-Checkfield test signal
- Use in conjunction with HUBbox™ 12G NV120-T1310-T1310-10 or the XFDsystem 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, ST 2082-1, ST 2081-1				
Laser safety	Class 1 21CFR and IEC60825-1				
Number of IN/OUT BNCs	2 (transmitter input or receiver output)				
Number of OUT BNC's	2 (transmitter loop-throuh or receiver output)				
Typical input cable length equalization	Up to 50m of Belden 1694A @ 11.88Gbps				
	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 ±10%				
Connectors	BNC				
Impedance	75ohm				
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 (9/125μm)			
Receiver technology	PIN			
Optical input overload power	0			dBm
Optical receiver sensitivity @ 11.88Gbps $(12G-SDI, BER = 10^{-12}, TX_{EXT} \ge 7dB)$			-14	dBm
Optical receiver sensitivity @ 2.97Gbps (3G-SDI Checkfield, BER = 10^{-12} , $TX_{EXT} \ge 7dB$)			-17	dBm
Optical receiver sensitivity @ 1.5Gbps (HD-SDI Checkfield, BER = 10 ⁻¹² , TX _{EXT} ≥ 7dB)			-18	dBm
Optical receiving window	1260		1620	nm

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