

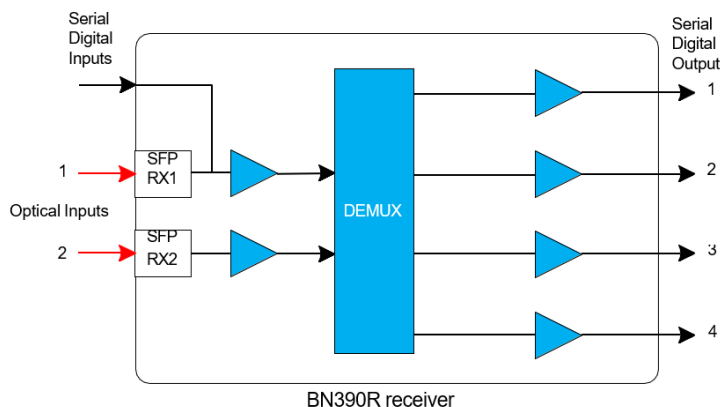
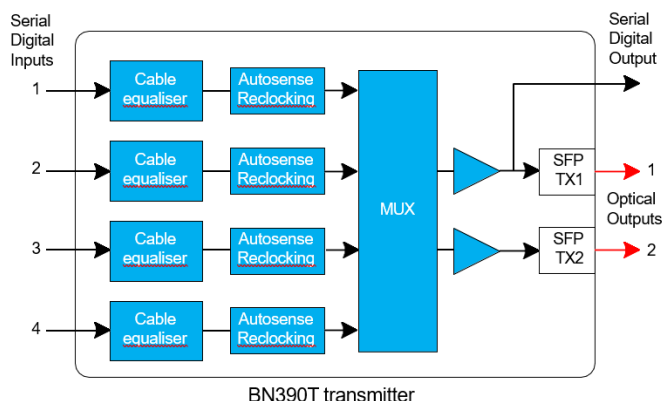
BN Series Deployable Optical Product



Description:

- Designed for rapid field deployment, ideal when multiple HD/SDI camera feeds need transport over one or two optical fibres
- Compact free-standing units, small enough to be mounted directly to the side of a camera
- Operate on 4.5–17 V DC via a 4-pin Neutrik XLR connector; compatible with the optional Bluebell PS12 power supply
- Normally used in pairs:
- BN390T performs electrical-to-optical conversion
- BN390R performs optical-to-electrical conversion at the receiving end
- Support inter-format conversions, with multiple SDI signals multiplexed onto a single optical wavelength (BN390T) and demultiplexed at the BN390R
- Primary electrical I/O via four BNC connectors, with optical I/O on a Neutrik OpticalCON DUO connector
- CWDM wavelengths (1270–1610 nm) available for BN390T; BN390R features a wideband optical receiver
- BN390T includes an extra SDI output (fifth BNC) carrying an electrical version of the multiplexed signal at Output A
- BN390R provides an SDI BNC input which can be used as an alternative to Optical Input A

BN390T & BN390R Diagram



Specifications

	BN390T	BN390R
Electrical Inputs and Outputs		
SDI standards – conformities	Compliant with: SMPTE ST 2082 SMPTE ST 2081 SMPTE ST 424M SMPTE 292M SMPTE 259M SMPTE 344M SMPTE 259M	
	SD-SDI, HD-SDI, 3G-SDI, 6G-SDI, 12G-SDI, MADI	
	Automatic to:	
	SD-SDI: 300 m @ 270 Mb/s	
	HD-SDI: 240 m @ 1.485 Gb/s	
	3G-SDI: 180 m @ 2.97 Gb/s	
	6G-SDI: 95 m @ 5.94 Gb/s	
Return Loss	12G-SDI: 70 m @ 11.88 Gb/s	
	<15 dB, 5 Mb/s – 1.485 Gb/s <17 dB, 5 Mb/s – 1.485 Gb/s	
Connectors	5 x 75 ohm BNC per IEC 60169-8, Amendment 2	
Format	Re-clocked	
Polarity (R only)		Non-inverting
Signal Level (R only)		800 mV +/-10%
Alignment Jitter (R only)		<0.2 UI line equalised @ 270 Mb/s, 1.485 Gb/s <0.3 UI line equalised @ 2.97 Gb/s, 5.94 Gb/s, 11.88 Gb/s
Timing Jitter (R only)		<0.2 UI line equalised @ 270 Mb/s <1 UI line equalised @ 1.485 Gb/s <2 UI line equalised @ 2.97 Gb/s <4 UI line equalised @ 5.94 Gb/s
Optical Inputs and Outputs		
Connector	Neutrik OpticalCON DUO	
Wavelength	1270 – 1610 nm	
Optical power (T only)	-15 dBm @ 1310 nm multimode -6 dBm @ 1310 nm singlemode -6 dBm @ 1310 nm (4K emSF)	
Sensitivity (R only)		>-22 dBm @ 3 Gb/s
	BN390T	BN390R

Monitoring	
On unit	Bi-colour LED per electrical input or output indicating a valid and locked signal
External via web pages	“Overview” web page indicating lock status of all inputs and outputs
SNMP monitoring via Ethernet	Full monitoring and control of all unit functions including selection of up- and down-conversion modes
Conformities	
EMI/RFI	Comply with 89/336/EEC, EN55022B, EN61000-4-2, EN61000-4-4 (Level 2), EN61000-4-5TB, EN61000-4-5, EN61000-4-11
Electrical	Comply with EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4
Laser Safety	Complies with Class 1 laser product
RoHS & WEEE	Complies with Directive 2002/95/EC
General	
Input Voltage	4.5 – 17 V
Power consumption	9 W
Depth	167 mm (excluding connectors)
Width	109 mm
Height	30 mm
Weight	200 g
Operating Temperature	-30 to +70 °C



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