

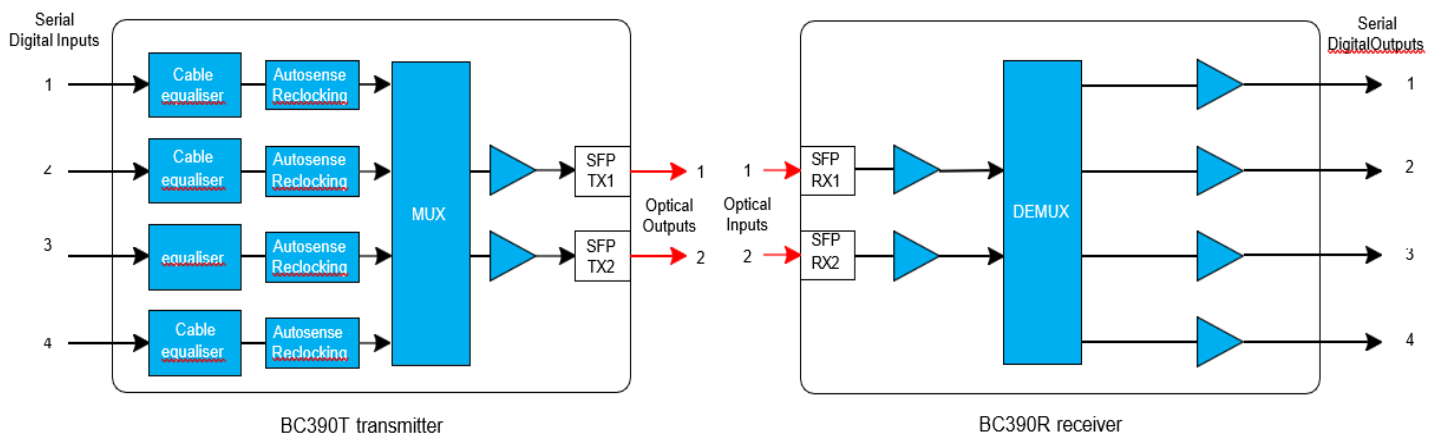
BC Series Modular Fibre Optic Interface System



Description:

- The BC390T (transmitter) and BC390R (receiver) provide a reliable method of transporting 4K UHD signals over fibre optic links.
- Part of the Bluebell Opticom BC Series, fully compatible with all BC Series racks and enclosures.
- Designed to work in pairs:
- BC390T – electrical-to-optical conversion.
- BC390R – optical-to-electrical conversion.
- Supports a wide range of inter-format conversions, multiplexing multiple SDI signals onto one optical wavelength (BC390T), with the BC390R performing corresponding demultiplexing.
- Electrical I/O: four BNC connectors per card.
- Optical I/O: SFP carrier with dual LC connectors.
- CWDM wavelengths (1270–1610 nm) can be specified for BC390T; BC390R has wideband receivers.
- Compatible with HD, 3G, 6G, and 12G SDI formats.
- BC390R automatically performs the reverse/downscaling conversions, depending on detected SDI input formats.
- Status reporting via BC100 rack monitoring system, with enhanced SNMP monitoring available when fitted with a BM102 network card.
- Powered directly by the BC100 rack, no external PSU required.

BC390T & BC390R Schematic diagram:



Specifications

	BC390T	BC390R
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	
Signal Standards:	SD-SDI, HD-SDI, 3G-SDI, 6G-SDI, 12G-SDI, MADI	
Equalisation	Automatic to: SD-SDI: 70 m @ 11.88 Gb/s HD-SDI: 95 m @ 5.94 Gb/s 3G-SDI: 180 m @ 2.97 Gb/s 6G-SDI: 240 m @ 1.485 Gb/s 12G-SDI: 300 m 00 @ 270 Mb/s	
Return Loss	<15 dB, 5 Mb/s – 1.485 Gb/s <10 dB, 1.485 Gb/s – 2.97 Gb/s <7 dB, 2.974 Gb/s – 5.94 Gb/s <4 dB, 5.94 Gb/s – 11.88 Gb/s	<17 dB, 5 Mb/s – 1.485 Gb/s <12 dB, 1.485 Gb/s – 2.97 Gb/s <8 dB, 2.974 Gb/s – 5.94 Gb/s <5 dB, 5.94 Gb/s – 11.88 Gb/s
Connectors	4 x 75 ohm BNC per IEC 60169-8, Amendment 2	
Format	Re-clocked	
Polarity		Non-Inverting
Signal Level		800 mV +/-10%
Alignment Jitter		<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		<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 <8 UI line equalised @ 11.88 Gb/s

	BC390T	BC390R
Optical Inputs and Outputs		
Most Specs determined by SFP fitted. Typical values given below		
Connector	Opticalcon, 2 x female LC	
Wavelength	1270 – 1610 nm	
Optical Power	-15 dBm @1310 nm multimode -6 dBm @ 1310 nm singlemode -6 dBm @1310 nm (4K emSFP)	
Sensitivity		>-22 dBm @ 3 Gb/s
Monitoring		
Front Panel	S/L: bi-colour LED per electrical input or output indicating a valid and locked signal	
External via BC100/BC160 rack frame	Lock status of Inputs 1 and 3	Lock status of each optical input
Conformities		
EMI/RFI	Complies with 89/336/EEC, EN55032B, EN61000-4-2	
Electrical	Complies with EN61000-4-4FTB, 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	6 – 18 V	
Power Consumption	9 W	
Depth	75 mm (60 mm excluding connectors)	
Width	20 mm (4HP)	
Height	129 mm (3RU)	
Weight	100 g (excluding SFP)	
Operating Temp	-30 to +70 °C	

