

BC SERIES MODULAR FIBRE OPTIC INTERFACE SYSTEM

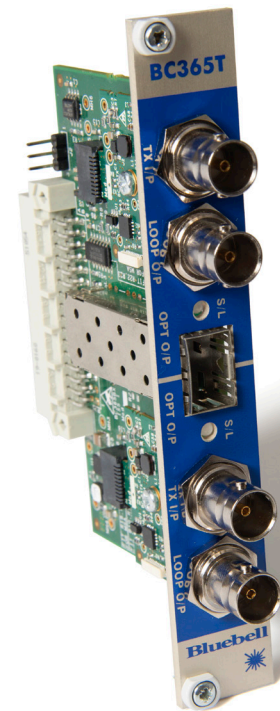
The BC365T and BC365R enable two independent 12G-SDI signals to be transported over a dual fibre optic link. The cards are part of the Bluebell Opticom BC Series and are compatible with all BC Series racks and enclosures. They are also fully compatible with SDI video signals at lower data rates including 6G, 3G, HD and SD.

The cards will normally be used in pairs, the BC365T performing electrical-to-optical conversion and the BC365R optical-to-electrical conversion at the receiving end. All electrical SDI inputs and outputs are on standard BNC connectors, while the optical I/O is a dual female LC connector in a standard SFP carrier. Additionally, the BC365T has equalised and reclocked loop-through outputs of each channel; the BC365R has dual buffered outputs for each channel.

Incoming signals are auto-sensed; equalisation and reclocking are applied to ensure minimum jitter and maximum signal integrity at all times. Reclocking may be bypassed if necessary. Each input to either card type (electrical on the BC365T, optical on the BC365R) has an associated bicolour LED which confirms the validity of the applied signal.

CWDM optical wavelengths in the range 1270 to 1610 nm may be specified for the BC365T; the BC365R's optical receivers are wideband.

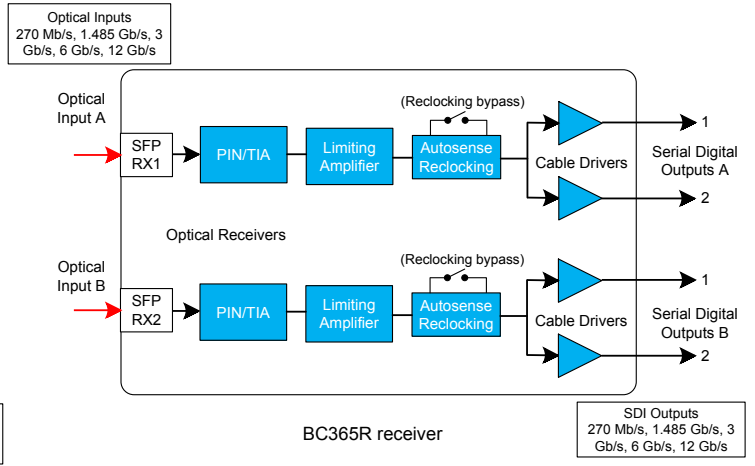
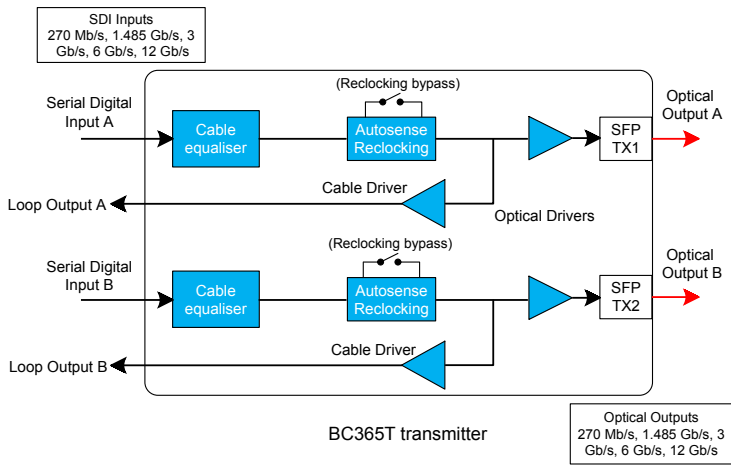
The BC365T and BC365R will report their status to the built-in monitoring system in the BC100 19" rack: enhanced reporting is available via SNMP if a BM102 network card is fitted to the rack. The rack provides all necessary DC power.



**BC365T UHD 4K SDI
Dual Transmitter**

**BC365R UHD 4K SDI
Dual Receiver**





Specifications

	BC365T	BC365R
Electrical Inputs and Outputs		
SDI standards – conformities	Compliant with: SMPTE ST 2082 SMPTE ST 2081 SMPTE ST 424M SMPTE 292M SMPTE 259M SMPTE 297M	
Signal standards:	SD-SDI, HD-SDI, 3G-SDI, 6G-SDI, 12G-SDI, DVB-ASI, MADI AT 125 Mb/s	
Equalisation (T only)	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 12G-SDI: 70 m @ 11.88 Gb/s	
Return Loss	<15 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	<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 (may be bypassed)	
Polarity (R only)	Non-inverting	
Signal Level (R only)	800 mV +/-10%	
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 8 UI line equalised @ 11.88 Gb/s	
Alignment Jitter (R only)	0.2 UI line equalised @ 270 Mb/s 0.2 UI line equalised @ 1.485 Gb/s 0.3 UI line equalised @ 2.97 Gb/s 0.3 UI line equalised @ 5.94 Gb/s 0.3 UI line equalised @ 11.88 Gb/s	
Optical Inputs and Outputs		
Most specs determined by SFP fitted. Typical values given below.		
Connector	2 x female LC	
Wavelength	1270 – 1610 nm	
Optical power (T only)	-15 dBm @1310 nm multimode -6 dBm @ 1310 nm singlemode -6 dBm @1310 nm (4K emSFP)	

	BC365T	BC365R
Sensitivity (R only)		> -25 dBm @ 1.485 Gb/s > -22 dBm @ 2.97 Gb/s > -20 dBm @ 5.94 Gb/s > -18 dBm @ 11.88 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	Bi-colour LED per channel indicating lock status of Inputs 1 and 2	Bi-colour LED per channel indicating lock status of optical inputs
External via BC100/BC160 rack frame with BM102 card fitted	Bi-colour virtual LED per channel indicating lock status of Inputs 1 and 2	Bi-colour virtual LED per channel indicating lock status of optical inputs
SNMP monitoring via BC100/BC160 rack frame with BM102 card fitted	Lock status of Inputs 1 and 2	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	3 W	
Depth	75 mm (60 mm excluding connectors)	
Width	20 mm (4HP)	
Height	129 mm (3RU)	
Weight	100 g (excluding SFP)	
Operating Temperature	-30 to +70 °C	



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