

## DEPLOYABLE 12G-SDI OPTICAL INTERFACE SYSTEM



**BN365T**  
Single channel 12G-SDI Transmitter



**BN365R**  
Single channel 12G-SDI Receiver

The BN365T and BN365R provide a simple and convenient means of transporting a 12G-SDI signal over a fibre optic link. They are compact, free-standing units, and have been designed specifically for rapid field deployment when SDI signals from cameras need to be transmitted over optical fibres. The modules will operate on a DC supply of between 4.5 and 17 V via a 4-pin Neutrik connector: the optional Bluebell PS12 is a suitable PSU. They are small enough to be attached to the side of a camera.

In addition to 12G-SDI capability, the modules are fully compatible with SDI video signals at lower data rates including 6G, 3G, HD and SD.

The modules will normally be used in pairs, the BN365T performing electrical-to-optical conversion and the BN365R optical-to-electrical conversion at the receiving end. The electrical SDI inputs and outputs are on standard BNC connectors, while the optical I/O is a dual female LC connector. Additionally, the BN365T has an equalised and reclocked loop-through output on a second BNC; the BN365R has dual buffered outputs.

Incoming signals are auto-sensed; equalisation and reclocking are applied to standard SDI signals to ensure minimum jitter and maximum signal integrity at all times. Non-standard signals are

passed from input to output without reclocking. The input to either card type (electrical on the BN365T, optical on the BN365R) 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 BN365T; the BN365R's optical receiver is wideband.

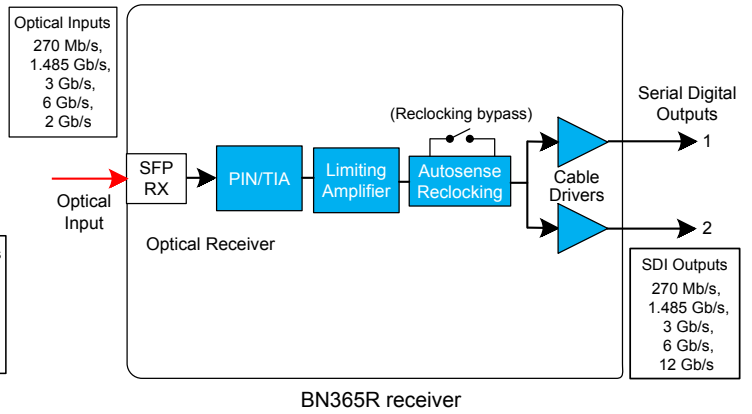
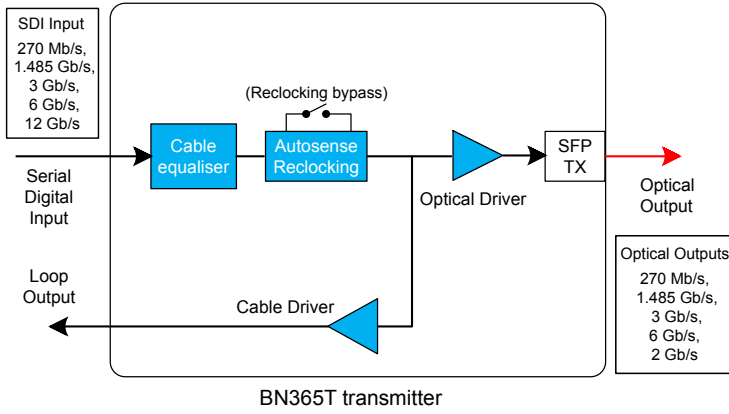


**BN365T**



**BN365R**





## Specifications

	BN365T	BN365R
<b>Electrical Inputs and Outputs</b>		
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, DVBl-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	2 x 75 ohm BNC per IEC 60169-8, Amendment 2	
Format	Re-clocked (automatically bypassed for non-standard signals)	
Polarity (R only)	Non-inverting	
Signal Level (R only)	800 mV +/-10%	
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	
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	

	BN390T	BN390R
<b>Optical Inputs and Outputs</b>		
Connector	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)	
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	
<b>Monitoring</b>		
Module end plates	Bi-colour LED per input indicating a valid and locked signal	
<b>Conformities</b>		
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	
Laser Safety	Complies with Class 1 laser product	
RoHS & WEEE	Complies with Directive 2002/95/EC	
<b>General</b>		
Input Voltage	4.5 – 17 V	
Power consumption	2.5 W	
Depth	92 mm	
Width	64 mm	
Height	30 mm	
Weight	100 g	
Operating Temperature	-30 to +70 °C	

# Bluebell

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