# Bluebell

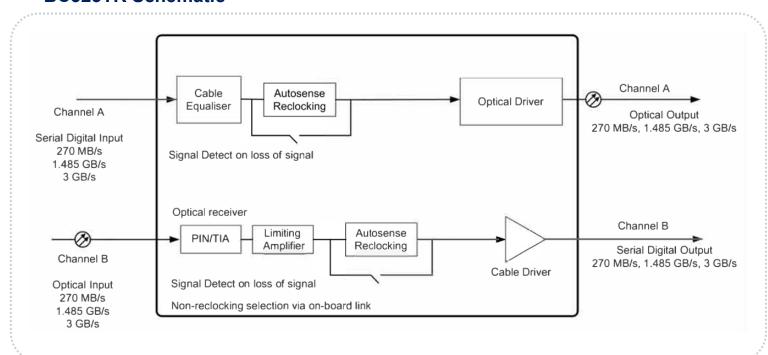
BC Series Modular Fibre Optic Interface System



# Description:

- Dual-channel transceiver module for converting two independent 3G-SDI, HD-SDI, SD-SDI, or ASI signals to and from fibre optic.
- Each signal is auto-sensed, equalised, and reclocked before conversion and transmission over a separate single optical fibre.
- Compact, robust enclosure suited for Outside Broadcast, special events, and studio applications.
- Powered via the optional PS12 unit (supplied separately) with IEC mains inlet for easy integration into standard bays.
- 4-pin XLR connector supports external DC power sources from 4.5 V to 17 V.
- Provides interference-free transmission and extended range for HD-SDI and 3G-SDI signals.
- Supports data rates from 50 Mb/s to 3 Gb/s, with each channel able to operate in non-reclocking mode.
- Available in singlemode, WDM, and CWDM variants for different fibre applications.
- Fully compatible with standard Bluebell cards and enclosures.

## **BC323TR Schematic**



### **Specifications**

Electrical Input		
Standards	SMPTE 424M , SMPTE 292M, SMPTE	
	259M, SMPTE 297M, DVB-ASI	
Equalisation	Automatic to 100 m @3 Gb/s	
	Automatic to 200 m @ 1.485 Gb/s	
	Automatic to 300 m @ 270 Mb/s	
	Equaliser and reclocking can be	
	bypassed to support data rates down to	
	50 Mb/s	
Connector	1 x 75 Ohm BNC per IEC 60169-8	
	Amendment 2 per channel	
Return loss	> 15 dB@ 1.485 Gb/s	
Format	Reclocked (with bypass to support data	
	rates down to 50 Mb/s) Please note that	
	the factory default unless specified is for	
	units to be supplied in reclocking mode.	
	Non-reclocking settings are accessed via	
	module pcb	
Optical Output		
Connector	1 x female LC as standard per channel	
Wavelength	1310-1550 nm (See Ordering Info)	
Optical power	-2 dBm@ 1310 nm (typical)	
	-2 dBm @ 1510 nm (typical)	
	0 dBm @ CWDM (typical)	

General module specifications		
Length	92 mm 142 mm Extended enclosure	
Width	64 mm	
Height	30 mm Excluding connectors	
Weight	100 g	
Operating Temp	-30 to +70 °C	
Power	2W	
Voltage	4.5 to 17 V de	
Signal Detect	LED on for signal loss	
Conformance		
EMI/RFI	Complies with 89/336/EEC	
Electrical	Complies with EN 61000-6-1,	
	EN61000-6-2	
Laser Safety	Complies with Class 1 laser product	
	24 CFR 1040.10 & 1040.11	
RoHS	Complies with Directive 2002/95/EC	
Warranty	5 years	
Electrical Output		
Standards	SMPTE 424M , SMPTE 292M,	
	SMPTE 259M, SMPTE 297M, DVB-	
	ASI	
	Automatic rate selection for 3G-SDI,	
	HD-SDI and SD-SDI data rates	
Connector	1 x 75 Ohm BNC per IEC 60169-8	
	Amendment 2 per channel	
Return loss	> 15 dB@ 1.485 Gb/s	
Format	Reclocked (with bypass to support	
	data rates down to 50 Mb/s)	
Polarity	1 x Non inverting, 1 x inverting	
	output	
Signal Level	800 mV +/- 10%	
DC Offset	0 +/- 0.5 V	
Jitter	<0.15 UI line equalized	

### **Ordering Information**

**PS12** 

BC323TR/M Multimode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transceiver Module,

Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (850nm). Fitted with LC connectors. PS12

power supply ordered separately.

BC323TR/S/13/13 Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transceiver Module,

Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). Fitted with LC connectors.

PS12 power supply ordered separately

BC323TR/S/13/15 Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transceiver Module,

Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1550nm). Fitted with LC connectors.

PS12 power supply ordered separately.

BC323TR/S/CWDM Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transceiver Module,

Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. (Dedicated CWDM Tuned Laser, Wavelength to suit ITU Grid Spacing - see CWDM Ordering Matrix). LC connectors as standard. PS12 power supply ordered separately. Each module has a transmitter at

the specified wavelength and a separate wideband receiver

10 watt Plugtop PSU for the BC313/323/550 Product Range. Fitted with 4 pin XLR.

Voltage range 100-240 V ac 50/60 Hz



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