

## BC Series Modular Fibre Optic Interface System



### BC323T Dual Electrical to Optical Transmitter

### 3G-SDI, HD-SDI, SD-SDI, ASI

The BC323T is a transmitter module for the conversion of two independent 3G-SDI, HD-SDI, SD-SDI and ASI signals into fibre optical cable. Each incoming signal is auto-sensed and then equalised and reclocked prior to conversion and transmission down a separate single optical fibre.

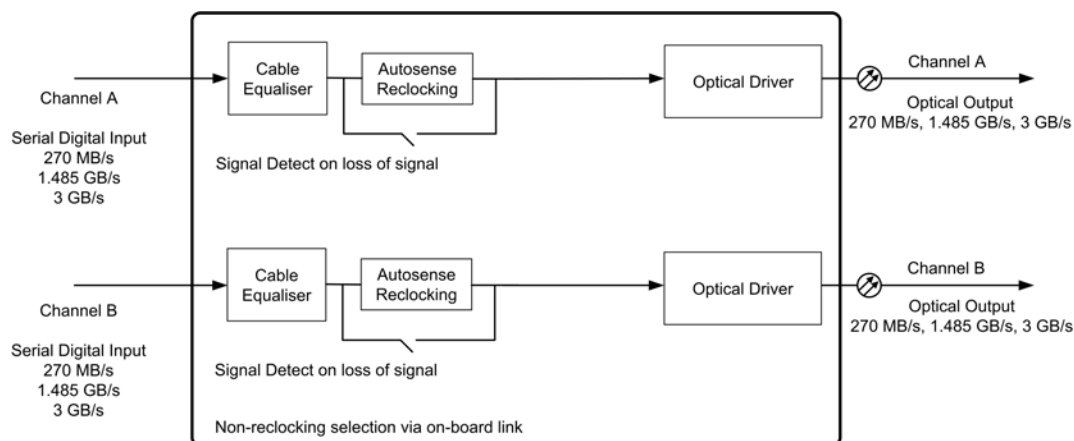
Each BC323T is housed in a compact robust enclosure and is designed for Outside Broadcast and special events as well as Studios. Power is provided via the PS12 unit supplied separately. The PS12 has an IEC mains inlet allowing easy adoption into standard equipment bays. The BC323T has a 4 pin XLR allowing power from a variety of external DC sources in the range 4.5 to 17 V.

The BC323s are extremely compact dual channel fibre optic converters that are perfectly suited to provide interference free transmission and for extending the range of electrical signals, particularly HD-SDI and 3G-SDI signals.

Each channel can operate in non-reclocking mode and handles data rates from 50 Mb/s to 3 Gb/s.

The BC323T is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC323T can also be used to interface to any of the standard Bluebell cards and enclosures.

Schematic Diagram BC323T



Specifications for each channel

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 nm, 1550 nm,  
 See Ordering Information  
 Optical Power -2 dBm @ 1310 nm (typical)  
 -2 dBm @ 1510 nm (typical)  
 0 dBm @ CWDM (typical)

General module specifications

Length 92 mm 142mm Extended enclosure  
 Width 64 mm  
 Height 30 mm  
 Excluding connectors  
 Weight 100 g  
 Operating Temp -30 to +70 °C  
 Power 2.5 W  
 Voltage 4.5 to 17 V dc  
 Signal detect LED on for loss of signal

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  
 Complies with Directive 2002/95/EC  
 5 years  
 RoHS  
 Warranty



Ordering Information

BC323T/M	Multimode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (850nm). Fitted with LC connectors. PS12 power supply ordered separately.
BC323T/S/13/13	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). Fitted with LC connectors. PS12 power supply ordered separately.
BC323T/S/13/15	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm and 1550nm). Fitted with LC connectors. PS12 power supply ordered separately.
BC323T/S/CWDM	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter 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.
PS12	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

The BC323 can also be supplied in an "extended" enclosure with ST connectors — add /ST to the end of the part numbers above.