

BC Series Modular Fibre Optic Interface System



BC313T/L Electrical to Optical Transmitter

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

The BC313T/L is a transmitter module for the conversion of 3G-SDI, HD-SDI, SD-SDI and ASI signals into fibre optical cable. The incoming signal is auto-sensed and then equalised and reclocked prior to conversion and transmission down a single optical fibre. A loop out is provided for signal monitoring or distribution.

Each BC313T/L is housed in a compact robust enclosure and is designed for Outside Broadcast and special events as well as Studios.

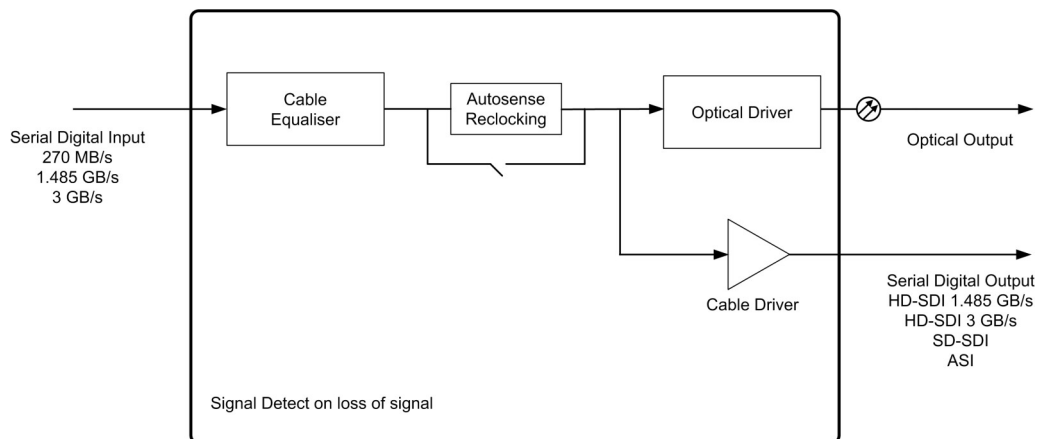
Power is provided via the optional PS10/XLR unit. The PS10/XLR has an IEC mains inlet allowing easy adoption into standard equipment bays. The BC313T/L has a 4 pin XLR allowing power from a variety of external DC sources in the range 4.5 to 17 V.

The BC313s are extremely compact single 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 BC313T/L is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC313T/L can also be used to interface to any of the standard Bluebell cards and enclosures.

Schematic Diagram BC313T/L



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

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.

Electrical Output

Standards SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE297M, 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

Return Loss > 15 dB @ 1.485 Gb/s

Polarity 1 x Non inverting

Signal Level 800 mV +/- 10%

DC Offset 0 +/- 0.5 V

Jitter <0.15 UI line equalised

Format Reclocked

Optical Output

Connector 1 x female LC

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

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 EN 61000-6-1, EN61000-6-2

Electrical Complies with Class 1 laser product

Laser Safety 24 CFR 1040.10 & 1040.11

RoHS Complies with Directive 2002/95/EC

Warranty 5 years



Ordering Information

BC313T/L/M Multimode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module with Loop Through Input, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. Fitted with LC connectors. PS12 power supply ordered separately.

BC313T/L/S/13 Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module with Loop Through Input, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). Fitted with LC connectors. PS12 power supply ordered separately.

BC313T/L/S/15 Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module with Loop Through Input, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1550nm). Fitted with LC connectors. PS12 power supply ordered separately.

BC313T/L/S/CWDM Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Module with Loop Through Input, 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.