Bluebell

BC Series Modular Fibre Optic Interface System

BC550T Electrical to Optical Transmitter   3G-SDI, HD-SDI, Control, Audio

The BC550T is a transmitter module for the transport of a 3G-SDI, HD-SDI, SD-SDI or DVB-ASI signal over fibre optical cable. The incoming signal is auto-sensed and then equalised and reclocked prior to conversion and transmission down a single optical fibre.
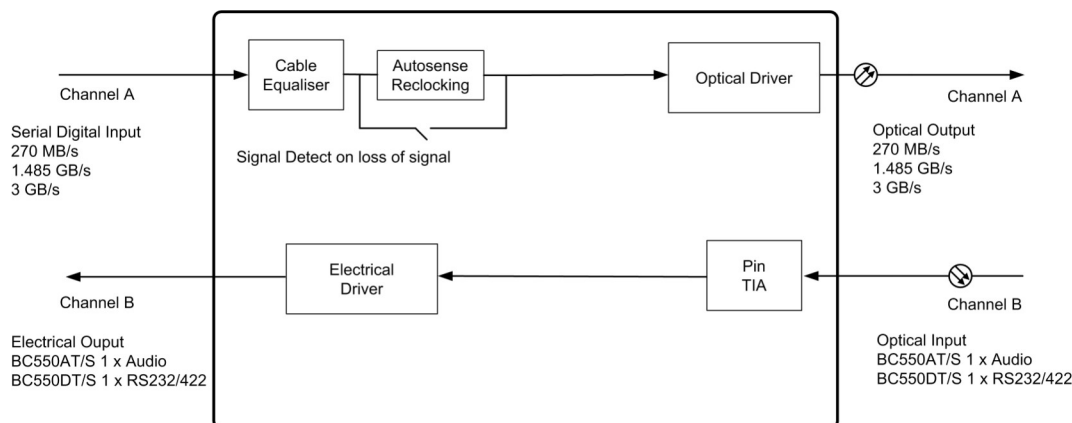
A reverse path for an audio or control data signal is carried on a second fibre making the BC550 perfect for adding cost effective fibre I/O to compact remote camera systems.

Each BC550T is housed in a compact robust enclosure with power provided via the PS12 unit.
The PS12 has an IEC mains inlet allowing easy adoption into standard equipment bays.
A 4 pin XLR allows the BC550T to be powered from a variety of external DC sources in the range 4.5 to 17 V.

The BC550 units are extremely compact 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.

The BC550T is available in singlemode, WDM and CWDM variants to suit any fibre application.
The BC550T can also be used to interface to any of the standard Bluebell enclosures.

www.bluebell.tv

Schematic Diagram BC550T

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
	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

BC550AT/S

Connector	XLR
Format	1 x analogue audio, 20 Hz– 20 kHz

BC550DT/S

Connector	9 pin D type	
Format	1 x RS232/RS422 unidirectional	
Max data rate	RS232	250 kb/s
	RS422	5 Mb/s

Optical Input/Output

Connector	1 x female LC as standard per channel
Tx Wavelength	1310 nm
Optical Power	-2 dBm @ 1310 nm (typical)
Rx Wavelength	1270-1610 nm

General module specifications

Length	92 mm
Width	64 mm
Height	30 mm
	Excluding connectors
Weight	100 g
Operating Temp	-30 to +70 ^{0}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
RoHS	Complies with Directive 2002/95/EC
Warranty	5 years

Ordering Information

BC550AT/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). With reverse audio channel via XLR on second fibre. Fitted with LC connectors. PS12 power supply ordered separately.
BC550DT/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). With reverse data channel via 9 pin D Type on second fibre. Fitted with LC connectors. PS12 power supply ordered separately.

Contact the Sales Office for other wavelengths.

PS12	10 watt Plugtop PSU for the BC313/323/550 Product Range. Fitted with 4 pin XLR.

RoHS Compliant
Directive 2005/95/EC

CE