

BC Series Modular Fibre Optic Interface System



BC551T Electrical to Optical Transmitter

3G-SDI, Audio

The BC551T is a transmitter card 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 analogue audio pair is carried on a second fibre making the BC551 perfect for adding cost effective fibre I/O to compact remote camera systems.

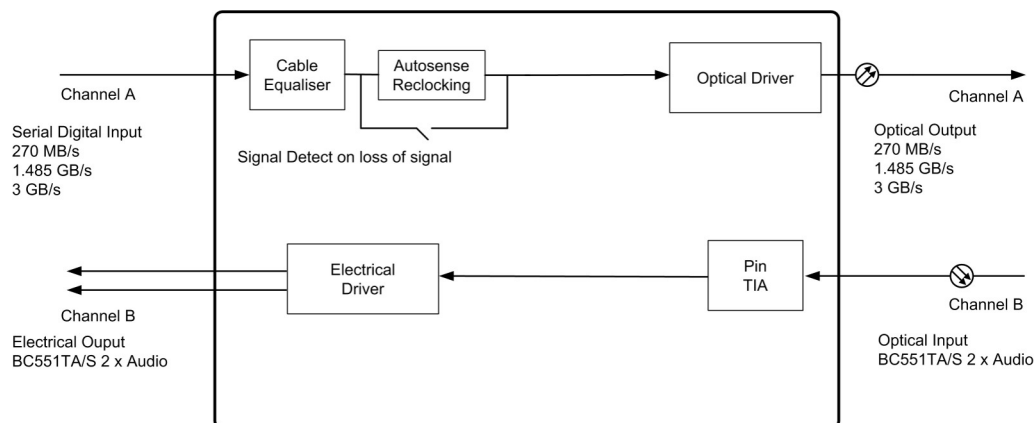
The BC551T is available in multimode, singlemode, WDM and CWDM variants to suit any fibre application.

The BC551T occupies a single slot in the BC100-3RU 19" rack-mounting frame which can hold up to 15 single slot cards.

Signal and card monitoring is achieved through SNMP monitoring in the BM102 network card. Alternatively GP-Output alarms can be triggered via the BM100 module.

For stand alone applications the BC551T can be housed in an individual rugged enclosure.

Schematic Diagram BC551T



Rear Panel



Specifications for each channel

Video 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.

Audio Output

Connector	9-way D connector,
Impedance	100 differential
Bandwidth	20 Hz to 20 kHz +/- 0.25 dB
System Gain	0 dB, nominal +/- 0.5dB
Format	+9 dBu Maximum Ref 1 mW into 600 Ohm
Number	2 x Balanced Line Level Analogue Audio
Noise ref	< -90 dB p-p weighted full scale

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

Ordering Information

BC551AT/S Singlemode 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). With 2 x reverse audio channel on second fibre.

Universal Chassis and Power Supplies

BC100-3RU	19" 3RU Chassis for up to 15 BCxxx Cards with optional Network Monitoring and facility for Dual Redundant Power Supplies (not supplied).
BM100	Network Monitoring Card with GPI Output on a SCSI Connector for Slot-16
BM102	Network Monitoring Card with Ethernet connection for Slot-16
PS65	90-250VAC Power Supply for BC100-3RU or BB100-3RU Chassis
BC160	19" 1RU Chassis for up to 6 BCxxx Cards. Includes Dual Redundant Power Supplies. Optional Network Monitoring.
BC101	Single Slot Chassis with 4 pin XLR for power. PS12 power supply ordered separately.
BC102	Double Slot Chassis with 4 pin XLR for power. PS12 power supply ordered separately.
BC120	Triple Slot Chassis with Universal Mains Power Supply. IEC Mains Leads not supplied