

BC Series Modular Fibre Optic Interface System



BC550R Electrical to Optical Receiver

3G-SDI, HD-SDI, Control, Audio

The BC550R is a receiver for the conversion of an optical signal into electrical 3G-SDI, HD-SDI, SD-SDI and ASI. The incoming optical signal is fed to a trans-impedance and limiting amplifier before being electrically reclocked on the output.

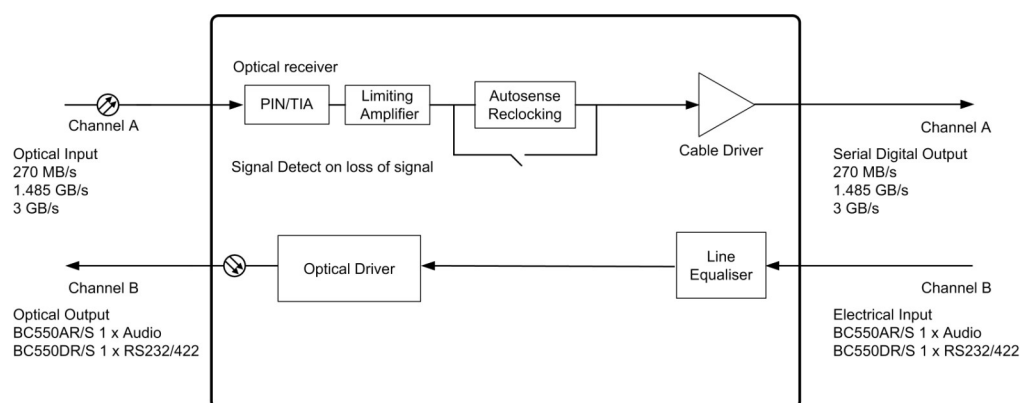
A reverse path for an audio or control data signal is carried on a second fibre making the BC550 perfect for adding cost effective fibre I/O to compact remote camera systems.

Each BC550R 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 BC550R 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 BC550R is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC550R can also be used to interface to any of the standard Bluebell enclosures.

Schematic Diagram BC550R



Specifications

Optical Input/Output

Connector	1 x female LC as standard per channel
Rx Wavelength	1270-1610 nm
Tx Wavelength	1310 nm
Sensitivity	> -25.0 dBm @ 3 Gb/s > -25.5 dBm @ 1.485 Mb/s > -26.0 dBm @ 270 Mb/s
Max I/P power	> -1 dBm
Data rate	50 Mb/s to 3 Gb/s

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
Signal Level	800 mV +/- 10%
DC Offset	0 +/- 0.5 V
Jitter	<0.15 UI line equalised
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 Input

BC550AR/S	
Connector	XLR
Format	1 x analogue audio, 20 Hz—20 kHz
BC550DR/S	
Connector	9 pin D type
Format	1 x RS232/RS422

General module specifications

Length	92 mm
Width	64 mm
Height	30 mm
Weight	100 g
Operating Temp	-30 to +70 °C
Power	2 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

BC550AR/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Receiver 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.
BC550DR/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Receiver 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.
------	---