

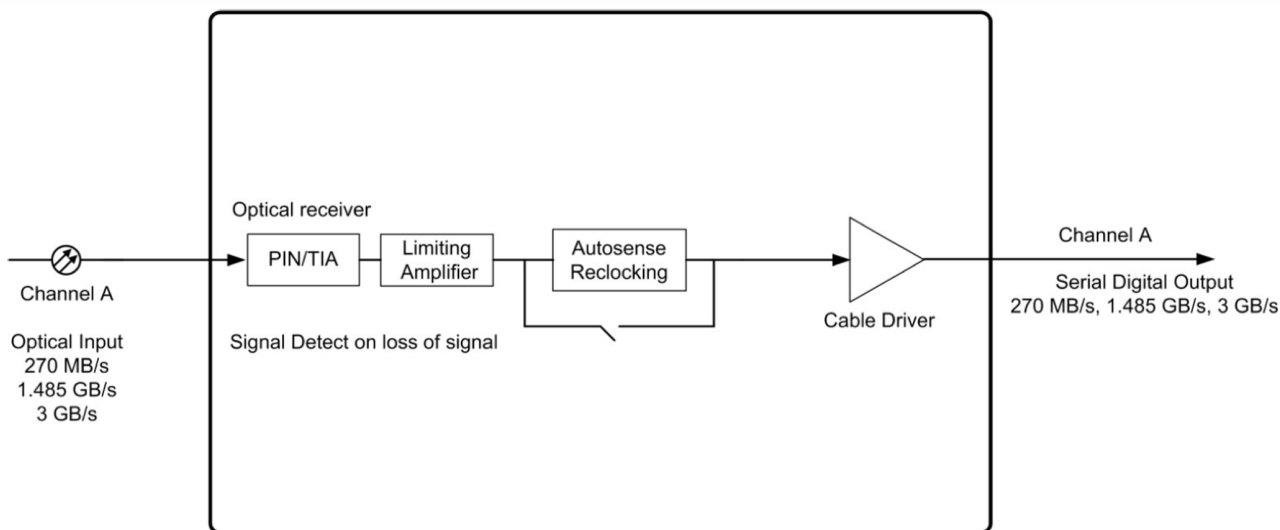
Bluebell

BC Series Modular Fibre Optic Interface System



BC313R Optical to Electrical Receiver 3G-SDI, HD-SDI, SD-SDI, ASI

The BC313R 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. Each BC313R 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 BC313R 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 BC313R is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC313R can also be used to interface to any of the standard Bluebell cards and enclosures. The single channel BC313 receiver is also available with dual outputs - see separate datasheet for full technical information.



Optical Input

Connector	1 x female LC as standard See Ordering Information
Wavelength	1270-1610 nm See Ordering Information for multimode and singlemode variants
Sensitivity	> -25.0 dBm @ 3 Gb/s > -25.5 dBm @ 1.485 Mb/s > -26.0 dBm @ 270 Mb/s
Max I/P power	>-1dBm
Data rate	50 Mb/s to 3 Gb/s

Electrical Output

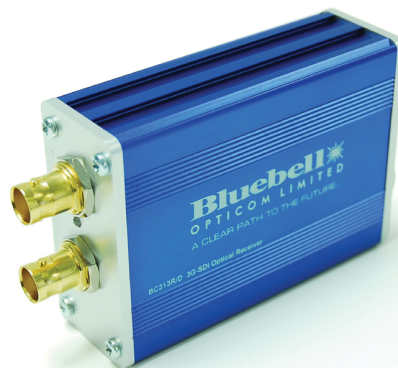
Standards	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 297M, DVB-ASI Automatic rate selection for 3G-SDI, HD-SDI and SD-SDI data rates.
Connector	1 x 75 Ohm BNC per IEC 60169-8 Amendment 2
Return Loss	> 15 dB @ 1.485 Gb/s
Polarity	1 x Non inverting, 1 x inverting output
Signal Level	800 mV +/- 10%
DC Offset	0 +/- 0.5 V
Jitter	<0.15 UI line equalised
Format	Reclocked (with bypass to support data rates down to 10 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.

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 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-
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

BC313R/M	Multimode Single Channel 3G/SDI, HD/SDI Fibre Optic Receiver Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. Fitted with LC connectors. PS12 power supply ordered separately.
BC313R/S	Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Receiver Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. Fitted with LC connectors. PS12 power supply ordered separately.
PS12	10 watt Plugtop PSU for the BC313/323/550 Product Range. Fitted with 4 pin XLR.

The BC313 can also be supplied in an “extended” enclosure with ST connectors — add /ST to the end of the part numbers above.