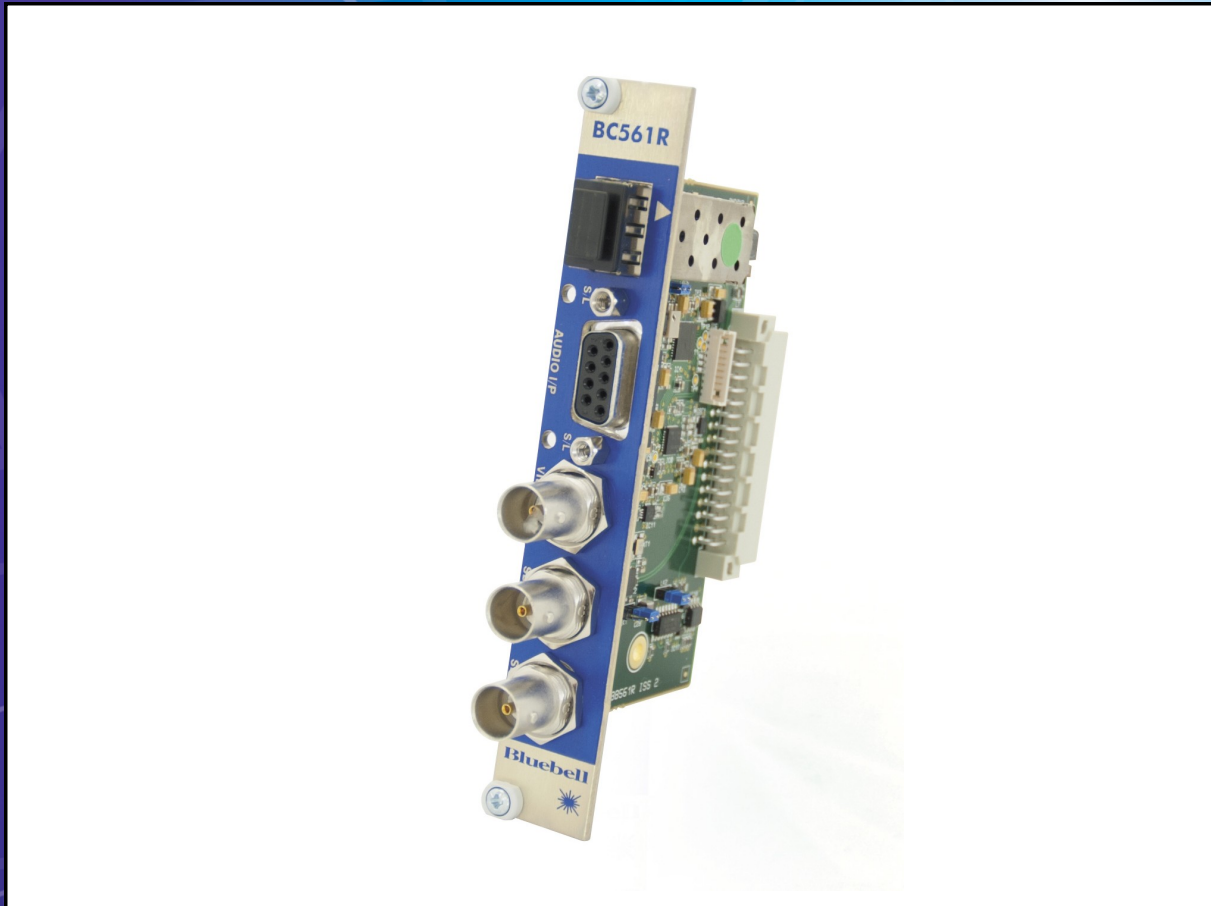# Bluebell ✳

BC Series Modular Fibre Optic Interface System

BC561R Electrical to Optical Receiver ⟶ 3G-SDI, HD-SDI, Control, Audio, Data

The BC561R 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 2 x differential analogue audio signals and a genlock/composite signal is carried on a second fibre making the BC551 perfect for adding cost effective fibre I/O to compact remote camera systems.

The BC561R is available in multimode, singlemode, WDM and CWDM variants to suit any fibre application.

The BC561R 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.

For stand alone applications the BC561R can be housed in an individual rugged enclosure

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Schematic Diagram BC561R
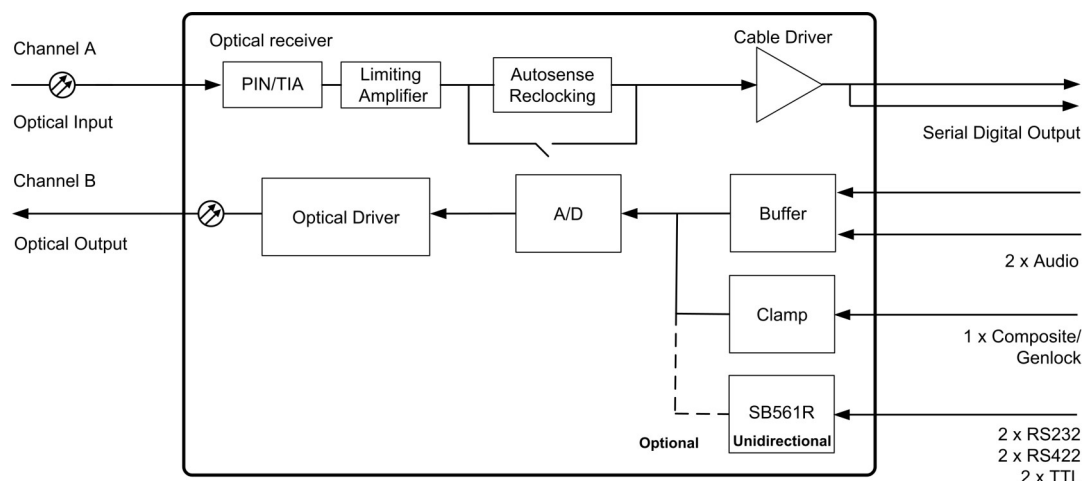
Rear Panel

Specifications for each channel

Electrical Output - SDI

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 output
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 Input - Video

Connector	1 x 75 Ohm BNC
Format	Composite Video/Genlock

Electrical Input

Connector	9 pin D type
Format	2 x differential Analogue Audio

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)

Option

By adding the SB561R sub module unidirectional data can also be added to the card functionality. The card is supplied with a different rear panel and becomes a 2 slot device.

SB561R Electrical Input

Connector	9 pin D type
Format	2 x RS323
	2 x RS422
	2 x TTL

General module specifications

Depth	86 mm [1]
Width	20 mm 4HP
Height	129 mm 3RU
Weight	100 g
Operating Temp	-30 to +70 ^{0}C
Power	2.4 W
No. of slots	1
	2 with SB561DR fitted

[1] (including connectors)

Conformance

EMI/RFI:	Complies with 89/336/EEC, EN55022B, EN61000-4-2, EN61000-4-4-(Level 2), EN61000-4-4FTB, EN61000-4-5, EN61000-4-11
Electrical:	Complies with EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4
Laser Safety:	Dependent on SFP fitted. Complies with Class 1 laser product
RoHS:	Complies with Directive 2002/95/EC
Warranty	5 years

Ordering Information

BC561R/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Receiver Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). With reverse video/genlock and 2 x differential analogue audio on second fibre.
	Fitted with LC connectors as standard
SB561 sub module	Sub Module adds additional unidirectional data to BC561 board
	NB : BC561 becomes a double slot device when the sub board is fitted
SB561DR	Sub module for BC561R unit. When fitted it provides inputs for 2 x RS232 + 2 x RS422 + 2 x TTL

For all available enclosures and frames see section "Universal Chassis and Power Supplies".