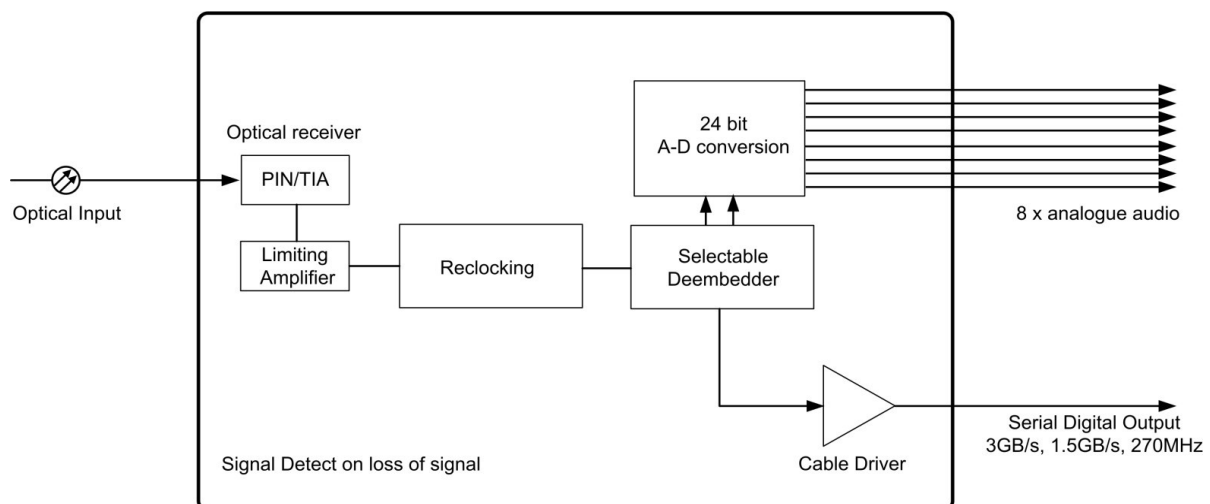# Bluebell ✳

BC Series Modular Fibre Optic Interface System

Description:

- The BC450R is a receiver that converts optical signals into 3G/HD/SD-SDI and de-embeds 8 channels of analogue audio using a 24-bit D/A converter.
- The optical input is amplified and reclocked to ensure clean SDI output with low jitter.
- Works with the BC460T embedder to allow AES inputs to be output as analogue audio.
- Available in multimode, singlemode, WDM, and CWDM variants to support various fibre setups.
- Occupies a single slot in the BC100-3RU frame, which holds up to 15 single-slot cards.
- Some BC Series cards offer dual functionality, supporting up to 30 video channels per frame.
- Supports SNMP monitoring via the BM101 card, with optional GP-output alarms through the BM100 module.
- Also available in a rugged standalone enclosure for individual use.

BC450R Single Channel Electrical to Optical De-Embedder 3G-SDI, HD-SDI, SD-SDI

Specifications

Optical Input	
Connector	1 x female LC
Wavelength	1200-1610 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
Max I/P Power	> -1 dBm
Data Rate	270 Mb/s, 1.485 Gb/s, 3 Gb/s
Electrical Output Video	
Connector	75 Ohm BNC per IEC 60169-8 Amendment 2
Return Loss	> 15 dB @ 1.485 Gb/s
Polarity	Non inverting Signal
Signal Level	800 mV +/- 10%
DC Offset	0 +/- 0.5 V
Jitter	<0.2 UI line equalized
Electrical Output Audio	
Connector	26-way D connector
Impedance	44 Ohm differential output Format 20 Hz to 20 kHz +/- 0.25 dB 0 dB system gain, -18 dBFS = 0 dBu (Europe) or -20 dBFS (USA) ref 1 mW into 600 Ohm Selectable for 0 dBu = -18 dBFS (Europe) or +4 dBu = -20 dBFS (USA) Variable via on board potentiometer +/- 1 dB Number 8 x Balanced Line Level Analogue Audio

General Card Specification	
Depth	60 mm
Width	20 mm 4TE
Height	100 mm (3RU)
Weight	100 g
Operating Temp	-30 to +70 ^{0}C
Power	6 W
Signal Detect	LED on for signal loss
No. of slots	1
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

BC450R/M/SFP	Multimode 3G-SDI Optical Receiver Card with 8 x Analogue Audio De-embedder with LC connector.
BC450R/S/SFP	Singlemode 3G-SDI Optical Receiver Card with 8 x Analogue Audio De-embedder with LC connector.

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).
BC100-3RU/48V	19" 3RU Chassis for up to 15 BCxxx Cards with optional Network Monitoring and facility for Dual Redundant Power Supplies (not supplied). Fitted with 48V dc input.
BM100	Network Monitoring Card with GPI Output on a SCSI Connector for Slot-16
BM101	Network Monitoring Card with Ethernet connection for Slot-16
BC140	Extender Card for BC100 3RU Chassis
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.
BC110	Single Slot Chassis with Universal Mains Power Supply
BC120	Triple Slot Chassis with Universal Mains Power Supply

Bluebell ✳

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