

BC SERIES MODULAR FIBRE OPTIC INTERFACE SYSTEM



BC450T Single Channel Electrical to Optical Embedder 3G-SDI, HD-SDI, SD-SDI

The BC450T is a transmitter for the conversion of 3G/HD/SD-SDI into an optical signal with the ability to embed 8 channels of line-level analogue audio. The incoming signal is auto-sensed and then equalised prior to conversion and transmission down a single optical fibre. All Bluebell cards are designed to retain maximum integrity of the signal path offering excellent jitter free optical transport.

Both outputs of the SFP transmitter are used to allow the optical output to be easily distributed.

The BC450T embedder can be used with a BC460R de-embedder allowing analogue inputs to feed AES outputs.

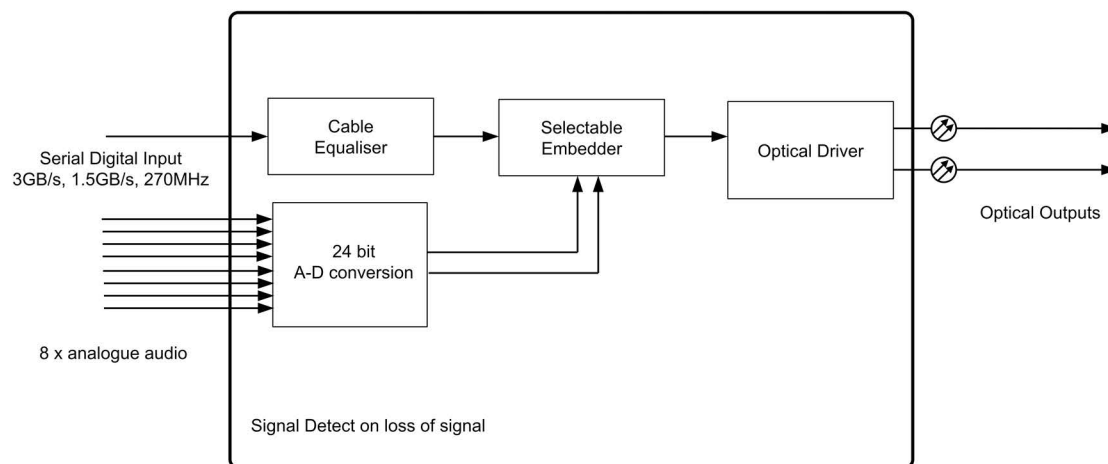
The BC450T is available in multimode, singlemode, WDM and CWDM variants to suit any fibre application.

The BC450T occupies a single slot in the BC100-3RU 19" rack-mounting frame which can hold up to 15 single slot cards. Some BC Series processing cards have dual functionality allowing up to 30 channels of video to be transmitted or received from a single 3RU frame.

Signal and card monitoring is achieved through SNMP monitoring in the BM101 network card. Alternatively GP-Output alarms can be triggered via the BM100 module.

For stand alone applications the BC450T can be housed in an individual rugged enclosure.

Schematic Diagram for BC450T



Specifications

Electrical Input Video

Standards	SMPTE 292M, SMPTE 259M, SMPTE 297M, SMPTE 305M
Equalisation	Automatic to 100 m @ 3 Gb/s Automatic to 200 m @ 1.485 Gb/s Automatic to 300 m @ 270 Mb/s
Connector	75 Ohm BNC per IEC 60169-8 Amendment 2
Return Loss	>15 dB @ 1.485 Gb/s

Electrical Input Audio

Connector	26-way D connector
Impedance	24 kOhm differential input
Format	20 Hz to 20 kHz +/- 0.25 dB distortion
Audio Levels	0 dB system gain, +24 dBu Maximum - 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 (4 stereo pairs)

Optical Output

Connector1	1 x female LC plus secondary optical output
Wavelength	850 nm, 1310 nm, 1550 nm, CWDM
See Ordering Information	
Optical Power	-2 dBm @ 1310 nm (typical) -2 dBm @ 1510 nm (typical) 0 dBm @ CWDM (typical)

General card specifications

Depth	60mm
Width	20mm 4TE
Height	100mm 3RU
Weight	100g
Operating Temp	-30 to+70°C
Power	6W
Signal detect	LED on for loss of signal
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

BC450T/M/SFP	Multimode 3G-SDI Optical Transmitter Card with 8 x Analogue Audio Embedder with LC connector.
BC450T/S/13/SFP	Singlemode 3G/HD-SDI Optical Transmitter Card with 8 x Analogue Audio Embedder (1310nm) with LC connector
BC450T/S/15/SFP	Singlemode 3G/HD-SDI Optical Transmitter Card with 8 x Analogue Audio Embedder (1550nm) with LC connector
BC450T/S/CWDM/SFP	Singlemode 3G/HD-SDI Optical Transmitter Card with 8 x Analogue Audio Embedder with LC connector. (Dedicated CWDM Tuned Laser, Wavelength to suit ITU Grid Spacing). See "CWDM Ordering Matrix" for additional information on ordering.

Bluebell 

Bluebell Opticom Limited
Unit 2 The Quadrant
Howarth Rd
Maidenhead
Berkshire
SL6 1AP
UK

Tel: +44 (0) 1628 510055, Fax: +44 (0) 1628 510057
Email: sales@bluebell.tv Website: www.bluebell.tv