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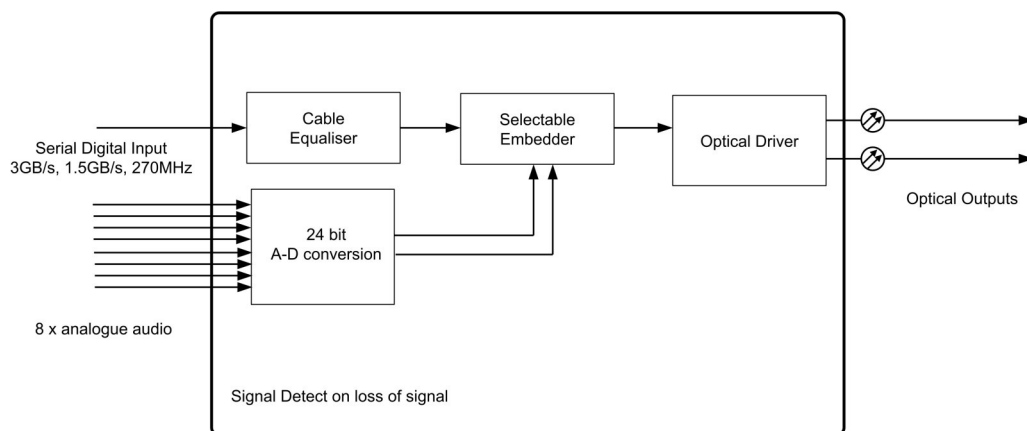## BC Series Modular Fibre Optic Interface System

Description:

- The BC450T is a transmitter that converts 3G/HD/SD-SDI signals into optical signals and embeds 8 channels of line-level analogue audio.
- The input is auto-sensed and equalised before transmission over a single optical fibre, ensuring jitter-free signal integrity.
- Both outputs of the SFP are used to allow easy optical signal distribution.
- Can be paired with the BC460R de-embedder to convert analogue inputs into AES outputs.
- Available in multimode, singlemode, WDM, and CWDM variants to suit different fibre setups.
- Occupies a single slot in the BC100-3RU frame, which holds up to 15 single-slot cards.
- Some BC Series cards have dual functionality, supporting up to 30 video channels in one frame.
- Supports SNMP monitoring via the BM101 card, with optional GP-output alarms using the BM100 module.
- Also available in a rugged standalone enclosure for individual deployments.

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

Serial Digital Input 3GB/s, 1.5GB/s, 270MHz

Cable Equaliser

Selectable Embedder

Optical Driver

Optical Outputs

24 bit A-D conversion

8 x analogue audio

Signal Detect on loss of signal

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)
Number	8 x Balanced Line Level Analogue Audio (4 stereo pairs)

Optical Output	
Connector	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	60 mm
Width	20 mm 4TE
Height	100 mm (3RU)
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

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.

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

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