Bluebell ✳

BC Series Modular Fibre Optic Interface System

BC360T Electrical to Optical Transmitter   3G-SDI, HD-SDI, SD-SDI, ASI

The BC360T is a transmitter for the conversion of 3G-SDI, HD-SDI, SD-SDI and ASI signals into fibre optical cable. 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.
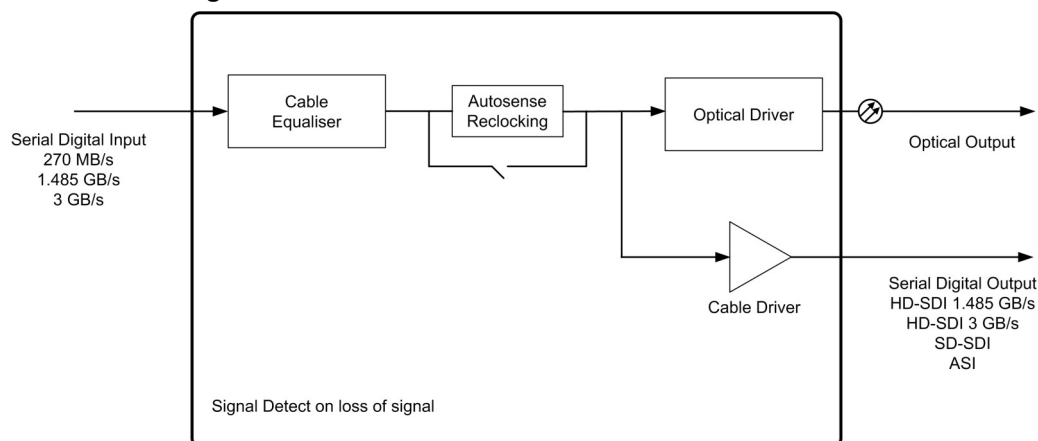
In non-reclocking mode the unit can operate with data rates from 50 Mb/s to 3 GB/s.

The BC360 cards suit applications where customers wish to keep main and reserve channels on separate physical cards for redundancy.

The BC360T is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC360T 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 BC360T can be housed in an individual rugged enclosure.

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Schematic Diagram BC360T

Rear Panel

Serial Digital Input
270 MB/s
1.485 GB/s
3 GB/s

Cable Equaliser → Autosense Reclocking → Optical Driver → Optical Output

Cable Driver → Serial Digital Output
HD-SDI 1.485 GB/s
HD-SDI 3 GB/s
SD-SDI
ASI

Signal Detect on loss of signal

BC360T-SFP

Specifications

Electrical Input

Standards	SMPTE 424, 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	75 Ohm BNC per IEC 60169-8 Amendment 2
Return Loss	> 15 dB @ 1.485 Gb/s

Electrical Output

Connector	75 Ohm BNC per IEC 60169-8 Amendment 2
Return Loss	> 15 dB @ 1.485 Gb/s
Polarity	Non inverting
Signal Level	800 mV +/- 10%
DC Offset	0 +/- 0.5 V
Jitter	<0.15 UI line equalised
Format	Driven active loop out

Optical Output

Connector	1 x female LC as standard
Wavelength	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	129 mm (3RU)
Weight	100 g
Operating Temp	-30 to +70 ^{0}C
Power	3 W
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

BC360T/M	Multimode Single Channel 3G/SDI Fibre Optic Transmitter Card, Auto-Sensing and reclocking for SDI, ASI, HD/SDI and 3G/SDI. Fitted with LC connector.
BC360T/S/13	Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). Fitted with LC connector.
BC360T/S/15	Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1550nm). Fitted with LC connector.
BC360T/S/CWDM	Singlemode Single Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. LC connectors as standard. (Dedicated CWDM Tuned Laser, Wavelength to suit ITU Grid Spacing - see CWDM Ordering Matrix).

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.
BC110	Single Slot Chassis with Universal Mains Power Supply
BC120	Triple Slot Chassis with Universal Mains Power Supply

RoHS Compliant Directive 2005/95/EC   CE