

BC Series Modular Fibre Optic Interface System



BC860 Multi-rate Ethernet to Fibre Converter Card 10/100/1000BaseT

The BC860 is a copper twisted pair to fibre optic media converter for conversion between copper twisted pair 10Base-T, 100Base-T or 1000Base-T data to fibre optic 100Base-FX or 1000Base-X format.

It provides two channels (full duplex) of data transmission with 10/100/1000BaseT duplex auto-negotiation. Data isolation transformers are provided for the twisted pair input and output. LEDs provide power, network and fibre activity indication.

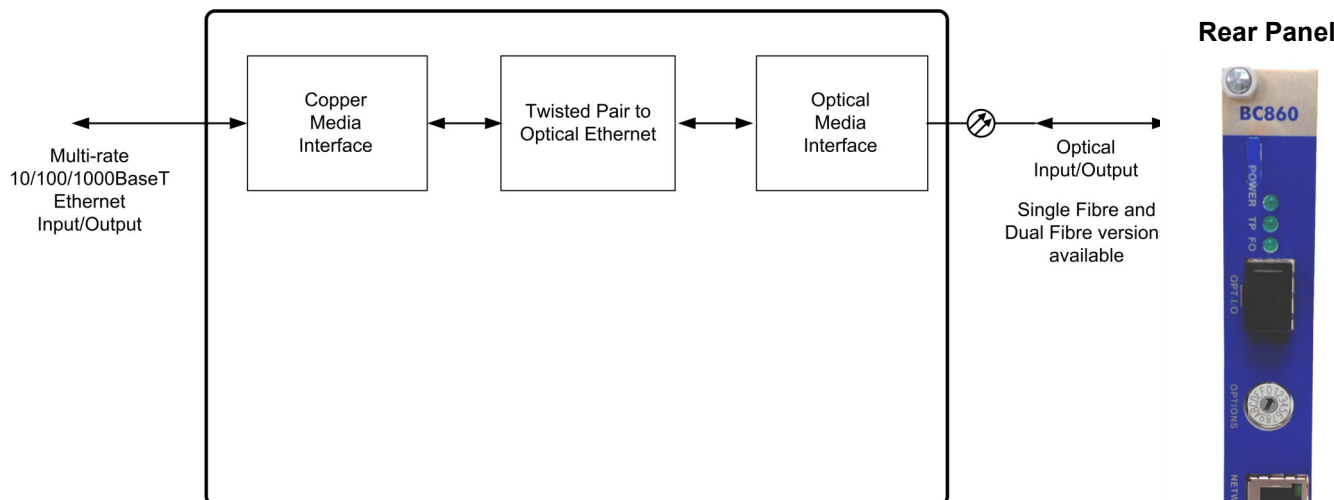
All Bluebell cards are designed to retain maximum integrity of the signal path offering excellent jitter free optical transport.

The BC860 is available in multimode and singlemode variants to suit any fibre application. Versions can be selected which provide full duplex operation over two fibres or a single fibre. CWDM versions are available to support the ITU G.694.2 grid specifications.

The BC860 occupies a single slot in the BC100-3RU 19" rack-mounting frame which can hold up to 15 single slot cards. The compact BC160 1RU is available for up to six cards. Signal and card monitoring is achieved through SNMP monitoring in the BM102 network card.

For stand alone applications the BC860 can be housed in an individual rugged enclosure.

Schematic Diagram BC860—single fibre version



Specifications

Electrical Input/Output

Connector	RJ45
Number	1
Format	Full duplex 100/1000Base-FX Data Transmission 10/100/1000BaseT half/full duplex auto-negotiation
Standard	IEEE 802.3 802.3 10 BaseT 802.3u 100 BaseT 802.3ab 1000 BaseT

Optical Input/Output

Connector	1 x female LC/PC Single Fibre Version 2 x female LC/PC Dual Fibre Version
Wavelength	See below; dependent upon model type
Standard	100base-FX and 1000base-X
Optical Power	- 9 dBm @ 850 nm
(Typical)	-15 dBm @ 1310 nm multimode -6 dBm @ 1310 nm and 1550 nm singlemode -6 dBm @ CWDM wavelengths
Sensitivity	> - 3 dBm to - 28 dBm
Max I/P power	> -1 dBm

General card specifications

Depth	60 mm
Width	20 mm 4TE
Height	129 mm (3RU)
Weight	100 g
Operating Temp	-30 to +70 °C
Power	2.4 W
Signal detect	LED on for power LED on for network activity LED on for fibre activity

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

BC860M/2	Multimode Dual Fibre 10/100/1000BaseT Ethernet to 1000Base-LX Fibre Converter Card
BC860S/2/13/LH	Singlemode Dual Fibre 10/100/1000BaseT Ethernet to 1000Base-EX Fibre Converter Card (1310nm) 40km Long Haul Transceiver
BC860S/2/CWDM/xx/WB	Singlemode Dual Fibre 10/100/1000BaseT Ethernet to 1000Base-EX Fibre Converter Card (CWDM) CWDM 40km Long Haul Transceiver
BC860S/13/15	Singlemode Single Fibre 10/100/1000BaseT Ethernet to 1000Base-LX10 Fibre Converter Cards (1310nm). Used in conjunction with BC860/S/15/13 as a matched pair.
BC860S/15/13	Singlemode Single Fibre 10/100/1000BaseT Ethernet to 1000Base-LX10 Fibre Converter Cards (1550nm). Used in conjunction with BC860/S/13/15 as a matched pair.

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).
PS65	90-250VAC Power Supply for BC100-3RU or BB100-3RU Chassis
BM102	Network Monitoring Card with Ethernet connection for Slot-16
BC160	19" 1RU Chassis for up to 6 BCxxx Cards fitted with Dual Redundant Power Supplies.
BC101	Single Slot Chassis with 4 pin XLR for power. PS12 power supply ordered separately.
BC102	Double Slot Chassis with 4 pin XLR for power. PS12 power supply ordered separately.
BC120	Triple Slot Chassis with Universal Mains Power Supply