Bluebell ✳

BC Series Modular Fibre Optic Interface System

BC862   Multi-rate Ethernet to Fibre Converter Card   10/100/1000BaseT

The BC862 is a dual port 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.
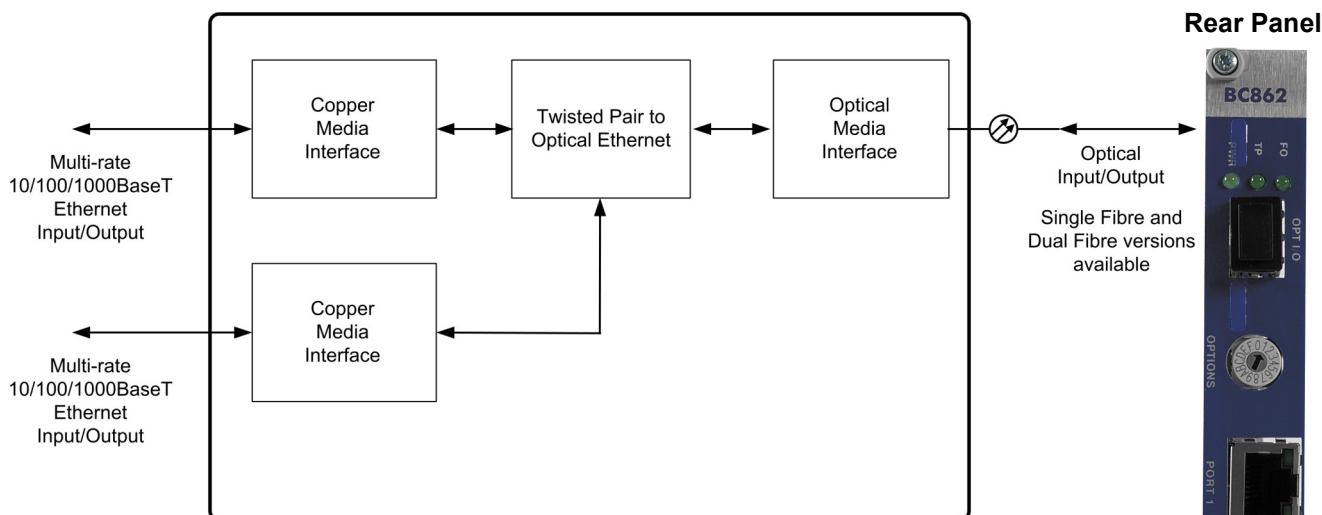
All Bluebell cards are designed to retain maximum integrity of the signal path offering excellent jitter free optical transport.

The BC862 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 BC862 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.

For stand alone applications the BC862 can be housed in an individual rugged enclosure.

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Schematic Diagram BC862 - single fibre version

Rear Panel

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Multi-rate            Copper          Twisted Pair to      Optical
10/100/1000BaseT      Media           Optical Ethernet     Media
Ethernet              Interface                            Interface
Input/Output

                      Copper
Multi-rate            Media
10/100/1000BaseT      Interface
Ethernet
Input/Output
```

Optical
Input/Output

Single Fibre and
Dual Fibre versions
available

Specifications

Electrical Input/Output

Connector	RJ45
Number	2
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 4HP
Height	129 mm 3RU
Weight	100 g
Operating Temp	-30 to +70 ^{0}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, EN55022B,
	EN61000-4-2, EN61000-4-4-(Level 2), EN61000-4-4FTB,
	EN61000-4-5, EN61000-4-11
Electrical:	Complies with EN61000-6-1, EN61000-6-2, EN61000-6-3,
	EN61000-6-4
Laser Safety:	Dependent on SFP fitted.
	Complies with Class 1 laser product
RoHS:	Complies with Directive 2002/95/EC
Warranty	5 years

Ordering Information

BC862M/2	Multimode Dual Fibre 10/1001000BaseT Ethernet to 1000Base-LX Fibre Converter Card. **Dual Port.**
BC862S/2/13/LH	Singlemode Dual Fibre 10/100/1000BaseT Ethernet to 1000Base-EX Fibre Converter Card (1310nm). 40km Long Haul Transceiver. **Dual Port.**
BC862S/2/CWDM/xx/WB	Singlemode Dual Fibre 10/100/1000BaseT Ethernet to 1000Base-EX Fibre Converter Card (CWDM). CWDM 40km Long Haul Transceiver. **Dual Port.**
BC862S/13/15	Singlemode Single Fibre 10/100/1000BaseT Ethernet to 1000Base-LX10 Fibre Converter Cards (1310nm). **Dual Port.** Used in conjunction with BC860/S/15/13 as a matched pair.
BC862S/15/13	Singlemode Single Fibre 10/100/1000BaseT Ethernet to 1000Base-LX10 Fibre Converter Cards (1550nm). **Dual Port.** Used in conjunction with BC860/S/13/15 as a matched pair.

Fitted with LC connectors as standard

For all available enclosures and frames see section "Universal Chassis and Power Supplies".