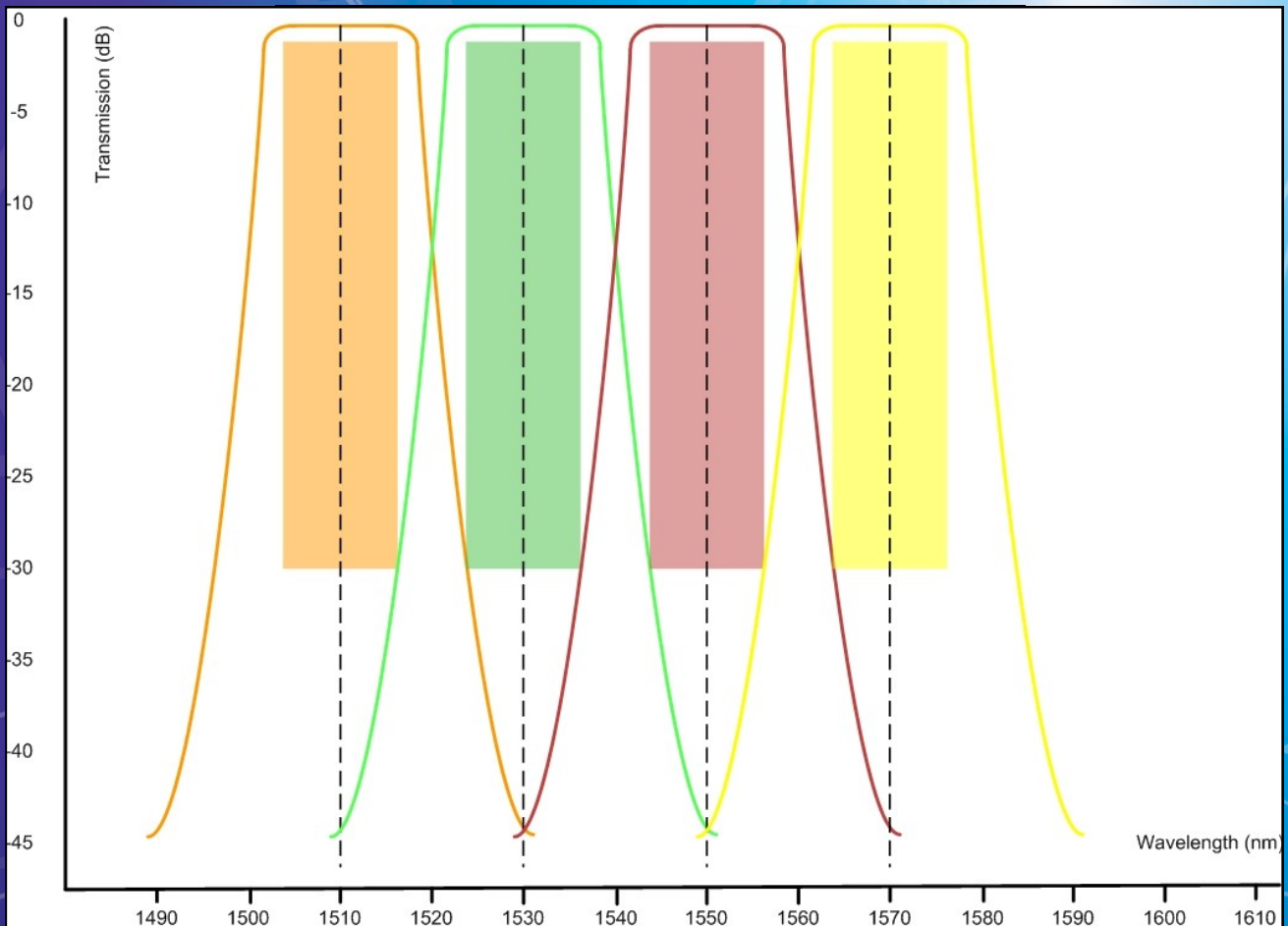


BC Series Modular Fibre Optic Interface System



BC-4 Coarse Wavelength Division Multiplexer/Demultiplexer

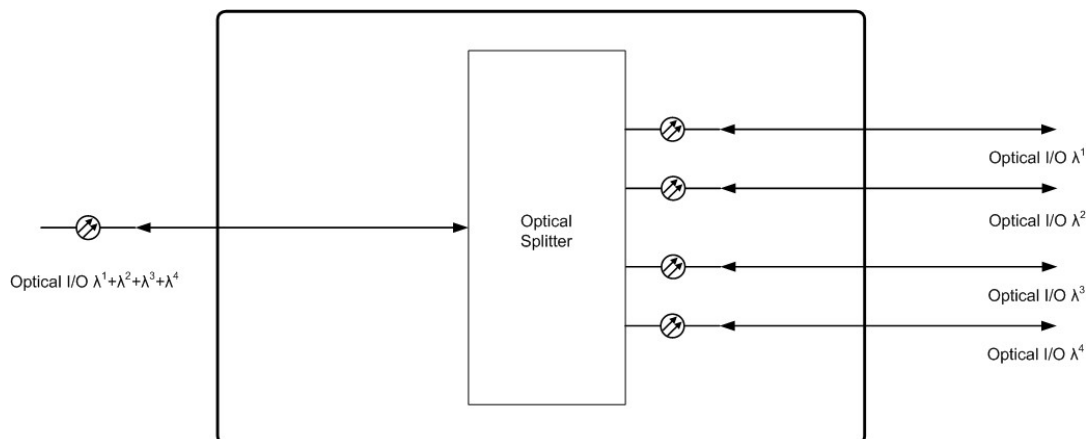
The BC-4 is a passive device for the multiplexing or demultiplexing of different optical wavelengths onto or from a singlemode fibre optic cable. Each unit allows up to 4 channels to be combined /separated with a 20 nm wavelength spacing based around the ITU G.694.2 grid specifications. Adding additional BC-4 or BC-8 cards allows the system to transmit a total of 16 independent wavelengths on a single fibre, proving to be a very cost effective solution for system designers working with third party leased fibres or in Outside Broadcast.

The BC-4 occupies a single slot in any BC Series 19" rack-mounting frames. This module is designed for applications where space is at a premium, ideal for portable OB systems when fitted in the BC160/BC160P units.

The BC-4D occupies two slots in any BC Series 19" rack-mounting frames. This module can be used for cost effective installations where space is not critical.

The BC160P 19" 1RU frame is specifically intended to house passive optical modules including splitters, WDM and CWDM devices. When used in combination with the active frames they produce ultra compact optical multiplexing and distribution systems.

For stand alone applications the BC-4 can be housed in an individual BC120 rugged enclosure.



Rear Panel



Schematic Diagram BC4

Specifications

Coarse Wavelength Division Multiplexer for single mode Optical Fibre Systems

Channels	4
	Additional channels via parallel BC4 or BC8 and BC2 combinations
Centre wavelengths (nm)	1510/1530/1550/1570 1470/1490/1590/1610 1270/1290/1310/1330 1350/1370/1390/1410
Optical bandwidth	> 13 nm
Insertion loss	< 1.9 dB
Link loss for mux/demux pair	< 3.8 dB
Isolation Adjacent channel	> 30 dB
Non-adjacent channel	> 40 dB
Isolation spectral range	1260-1620 nm
Return Loss	> 45 dB (50 dB typ.)
Directivity	> 50 dB
Polarization dependent loss	< 0.2 dB

General card specifications

No. of slots	1 or 2
Depth	60 mm
Width	20 or 40mm
Height	100 mm 3RU
Weight	100 g
Operating Temp	0 to +70 °C
Max Optical Power	250 mW

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

NB : All CWDM systems require specific "tuned" laser transmitters with individual 20 nm window wavelengths.

Ordering Information

1 slot device

BC-4/CWDM/LC – Option A	4-Channel CWDM Card Centre Wavelengths 1510/1530/1550/1570 nm
BC-4/CWDM/LC – Option B	4-Channel CWDM Card Centre Wavelengths 1470/1490/1590/1610 nm
BC-4/CWDM/LC – Option C	4-Channel CWDM Card Centre Wavelengths 1270/1290/1310/1330 nm
BC-4/CWDM/LC – Option D	4-Channel CWDM Card Centre Wavelengths 1350/1370/1390/1410 nm

2 slot device

BC-4D/CWDM/LC – Option A	4-Channel CWDM Card Centre Wavelengths 1510/1530/1550/1570 nm
BC-4D/CWDM/LC – Option B	4-Channel CWDM Card Centre Wavelengths 1470/1490/1590/1610 nm
BC-4D/CWDM/LC – Option C	4-Channel CWDM Card Centre Wavelengths 1270/1290/1310/1330 nm
BC-4D/CWDM/LC – Option D	4-Channel CWDM Card Centre Wavelengths 1350/1370/1390/1410 nm

Fitted with LC connectors as standard

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