CWDM Modules | Barnfind Technologies AS

Barnfind CWDM Mux/Demux is a passive technology, it allows for any protocol to be transported over the link, as long as it is at a specific wavelength (i.e. HD over fiber at 1570nm transported alongside 3Gbps SDI at 1590nm). This allows for long-term future proofing of the networking infrastructure because the multiplexers simply refract light at any network speed, regardless of the protocol being deployed.

Barnfind CWDM Mux/Demux can support up to 18 wavelengths between 1270nm to 1610nm in 20nm increments when com fiber is ITU-T G.694.2 , however if com fiber is ITU-T G.652, we recommend adopt 1270nm and 1290nm instead of 1390nm and 1410nm because of water peak loss.
Barnfind provides a complete portfolio of CWDM Mux Demux and Optical Add Drop Multiplexer (OADM) units to suit all applications.

CWDM Mux/Demux is a flexible, low-cost solution that enables the expansion of existing fiber capacity.
The CWDM Mux/Demux lets operators make full use of available fiber bandwidth in local loop and enterprise architectures.
Barnfind CWDM Mux/Demux is a universal device capable of combining up to 18 optical signals into a fiber pair or single fiber. It is designed to support a broad range of architectures, ranging from scalable point-to-point links to two fiber-protected rings

CWDM Mux & Demux specifications

8/16 optical channels
Center wavelengths according to ITU-T G.694.2
Channel center wavelength 1290~1590 nm
Channel clear passband ITU +/- 7 nm
Insertion loss 8ch-2.5dBm, 16ch-3.5dBm (max)
Passband ripple 0.5dBm (max)
Adjacent channel isolation 30dBm (min)
Non-adjacent channel isolation 45dBm (min)
Return loss 45dBm (min)
Directivity 45dBm (min)
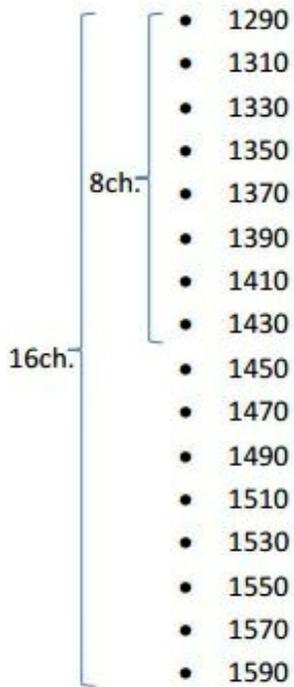Polarization dependent loss 0.1dBm (max)
 Operating temperature range -20C to +70C (optional -40C to +85C)
Storage temperature handling – 40 to + 85C
Maximum power handling 300mW

ITU grid G.694.2

CWDM wavelength

8ch.
16ch.

- 1290
- 1310
- 1330
- 1350
- 1370
- 1390
- 1410
- 1430
- 1450
- 1470
- 1490
- 1510
- 1530
- 1550
- 1570
- 1590

Single Mode

Order Number	Data Rate	Distance	nm	Compatible
BT-CWDM-40-01XX	155Mbps	40km	1290 - 1590nm	
BT-CWDM-80-01XX	155Mbps	80km	1470 - 1610nm	
BT-CWDM-40-02XX	1.25Gbps	40km	1290 - 1590nm	
BT-CWDM-80-02XX	1.25Gbps	80km	1470 - 1610nm	
BT-CWDM-120-02XX	1.25Gbps	120km	1270 - 1610nm	
BT-CWDM-40-03XX	2.5Gbps	40km	1290 - 1590nm	
BT-CWDM-80-03XX	2.5Gbps	80km	1470 - 1610nm	
BT-CWDM-10-3GXX	3G	10km	1270 - 1610nm	SDI, HD-SDI, 3G
BT-CWDM-40-3GXX	3G	40km	1270 - 1610nm	

* All CWDM modules mentioned in the list are transceivers