CWDM Optical Modules
4/8/16/18 Channel CWDM Optical Mux/Demux Modules

Space-saving, modular platform for advanced signal processing.

CWDM mux/demux modules from Grass Valley, a Belden Brand, are bidirectional passive optical multiplexers and demultiplexers, allowing multiple optical signals at different wavelengths to pass through a single optical fiber strand. The product is designed to integrate conveniently with Grass Valley’s FIO-1901, FIO-901 and FIO-991p Series of optical/electrical converters, but is equally useful with any other product working with CWDM wavelengths such as Grass Valley’s NVISION routers.

The CWDM mux/demux combines up to 18 different wavelength signals from different optical fibers into a single optical fiber, or separates up to 18 different wavelength signals coming from a single optical fiber to 18 separate optical fibers.

The units are completely agnostic to the signal type, allowing different signals such as AES, MADI, DVB-ASI, 3G/HD/SD SDI or Ethernet to travel in either direction on the same fiber link.
CWDM Optical Modules 4/8/16/18 Channel CWDM Optical Mux/Demux Modules

KEY FEATURES

- 4, 8, 16 or 18 channel optical mux/demux
- Long distance coverage of multiple signals on a single fiber strand
- Various types of signals supported such as 3G/HD/SD, AES, DVB-ASI, Ethernet, etc.
- Same module can be used in either direction, allowing some channels in one direction and other channels in opposite direction
- Passive CWDM optical mux/demux design
- Minimizes content delivery costs where dark fiber is available
- Packaged in the same modular form as the FOS series of optical splitters, with all modules the same width, and configured to install in a convenient 1 RU tray that holds up to 10 single height modules or 5 double height modules, or any combination of both

SPECIFICATIONS

Channel spacing: 20 nm
Channel passband: CW ±7 nm
Adjacent channel isolation: > 30 dB
Non-adjacent channel isolation: > 40 dB
Directivity: > 50 dB
Return loss: > 45 dB
Passband ripple: < 0.5 dB

CWDM Mux/Demux

CWDM-4-LC:
Wavelengths: 1551, 1571, 1591, 1611 nm
Insertion loss: < 1.0 dB
Module height: Half height (½ RU)

CWDM-8-LC:
Wavelengths: 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm
Insertion loss: < 1.0 dB
Module height: Half height (½ RU)

CWDM-16-LC:
Wavelengths: 1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm
Insertion loss: < 3.0 dB
Module height: Full height (1 RU)

End-to-End Mux/Demux Insertion Loss

4 wavelengths: < 3 dB
8 wavelengths: < 3 dB
16 wavelengths: < 6 dB
18 wavelengths: < 6 dB

Environmental

Operating temperature range: 0° to 70° C (32° to 158° F)

GVB-1-0432C-EN-DS

ORDERING

CWDM-4-LC: 4 channel CWDM mux/demux (1551 nm - 1611 nm), LC connectors
CWDM-8-LC: 8 channel CWDM mux/demux (1471 nm - 1611 nm), LC connectors
CWDM-16-LC: 16 channel CWDM mux/demux (1271 nm - 1611 nm), LC connectors
CWDM-18-LC: 18 channel CWDM mux/demux (1271 nm - 1611 nm), LC connectors
POD-TRAY: 1 RU tray for up to ten single height passive optical devices (or up to five double height passive optical devices)

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