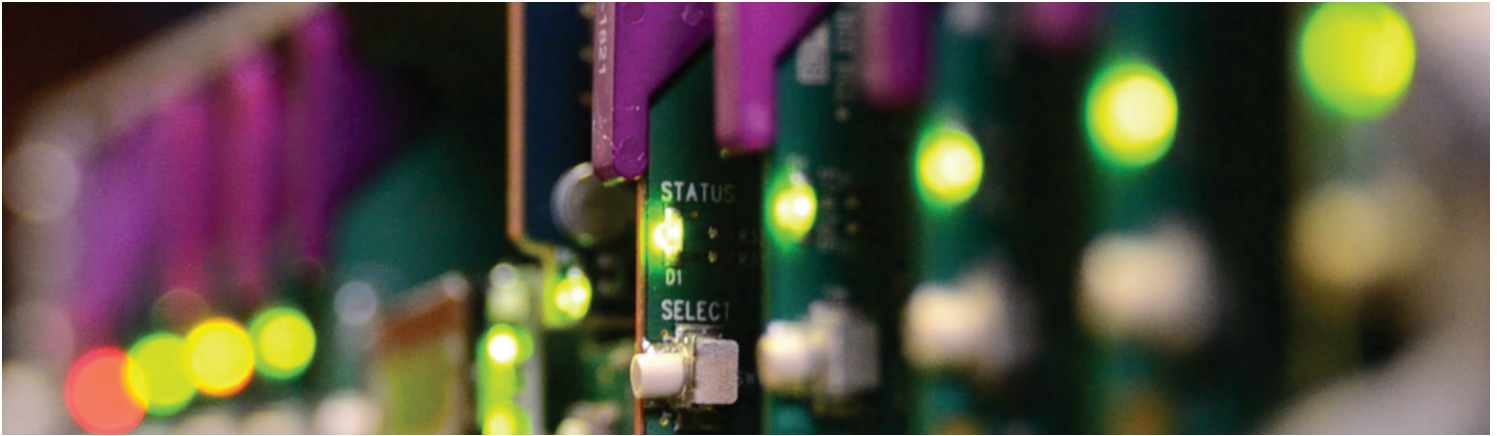


# CWDM Optical Modules

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

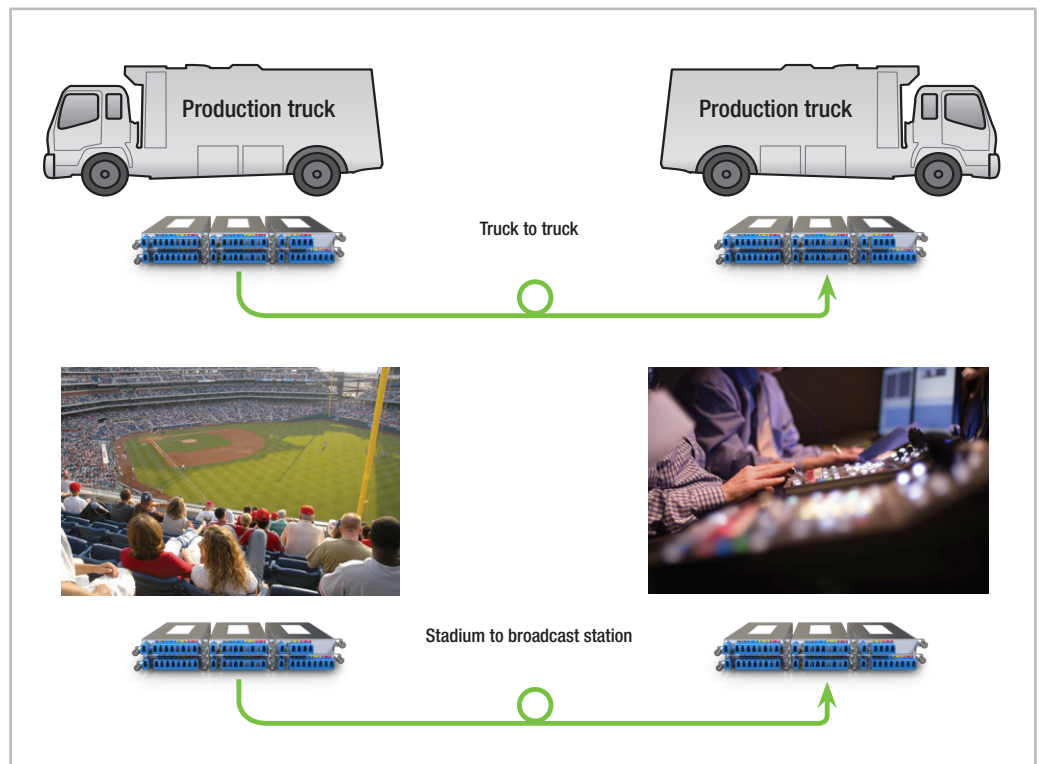


Space-saving, modular platform for advanced signal processing.

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.

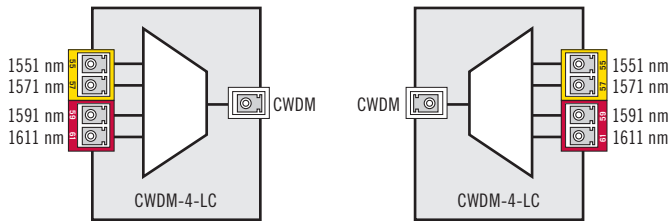


# CWDM Optical Modules 4/8/16/18 Channel CWDM Optical Mux/Demux Modules

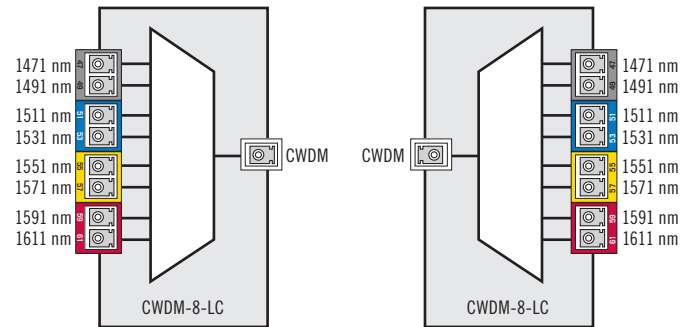
## KEY FEATURES

- 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

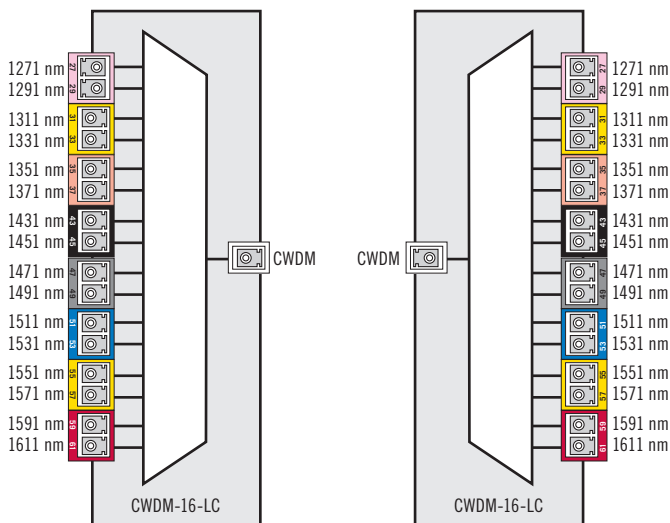
4 wavelengths CWDM mux and demux



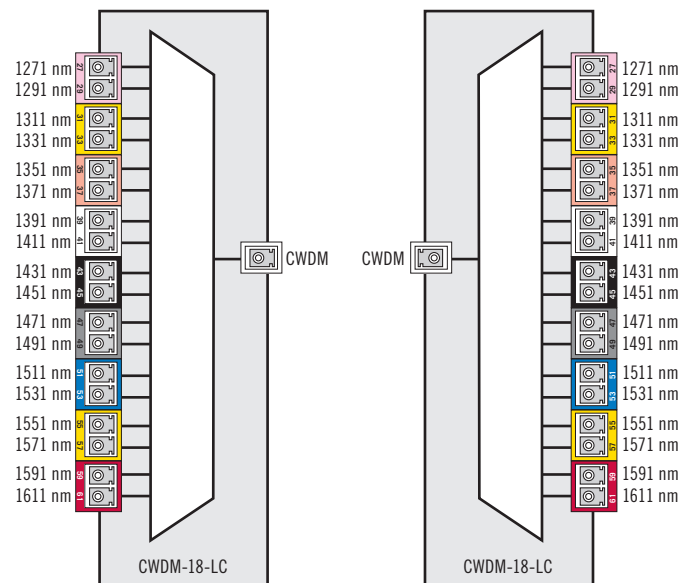
8 wavelengths CWDM mux and demux



16 wavelengths CWDM mux and demux



18 wavelengths CWDM mux and demux



## SPECIFICATIONS

**Channel spacing:** 20 nm  
**Channel passband:** CW  $\pm 7$  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: < 1.8 dB  
 Module height: Half height (1/2 RU)  
**CWDM-8-LC:**  
 Wavelengths: 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm  
 Insertion loss: < 1.8 dB  
 Module height: Half height (1/2 RU)

**CWDM-16-LC:**  
 Wavelengths: 1271, 1291, 1311, 1331, 1351, 1371, 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm  
 Insertion loss: < 3.0 dB  
 Module height: Full height (1 RU)  
**CWDM-18-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)  
 \*Use of wavelengths in the vicinity of 1380 nm requires the use of Zero Water Peak Fiber cables, i.e., conforming to Rec. ITU -T G.652 (11/2009), C or D attributes.

## 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 mux/demux (1271 nm - 1611 nm), LC connectors

CWDM-18-LC 18 channel 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)



GVB-1-0432C-EN-DS

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