

BBG-4490-CWDM • Standalone Multi-Channel Fiber Optical Multiplexers/De-Multiplexers



The BlueBox™ **BBG-4490** series of CWDM passive multiplexers (mux) / de-multiplexers (demux) offer a flexible, scalable, cost-effective solution to mux and demux up to 18 fiber channels onto a shared fiber trunk. 4 and 8-channel units are available which can be used as standalones or rack-mounted using an optional 1RU mounting panel (12, 16, and 18-channel units are rack-mounted 1RU units). Used in conjunction with our fiber EO and OE converter cards, digital video, audio, and IP can all be carried over a shared fiber trunk. Coarse Wave Division Multiplexing (CWDM) offers a cost-effective, scalable, and convenient solution for multiplexing and de-multiplexing discrete channels onto a shared fiber trunk. Each model can be used as a mux or a de-mux unit (two units are required for a complete mux/de-mux setup).

The BBG-4490 mux/de-mux units are available in 4, 8, 12, 16, and 18-channel versions. Epoxy-free optical paths help ensure reliability over a wide range of operating conditions. The low-loss passive devices use no external power.

FEATURES

Standalone/rack-mountable design allows use as a standalone or rack-mounted

Same models can be used either as mux or demux unit – fully bidirectional

Fully passive design using low-loss filters. Requires no power or communications.

Available in several connector configurations – ST, SC, LC, FC

Epoxy-free optical paths help ensure reliability over a wide range of operating conditions

Five year warranty

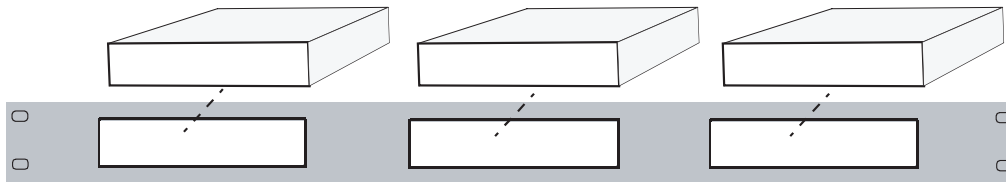
OPTIONS

BBG-4490-RM3 Rack Mounting Panel; 3-device. Provides 1RU rack mounting for up to three BBG-4490-CWDM-4A, 4B, and/or BBG-4490-CWDM-OS.

BBG-4490-RM2 Rack Mounting Panel; 2-device. Provides 1RU rack mounting for up to two BBG-4490-CWDM-8.

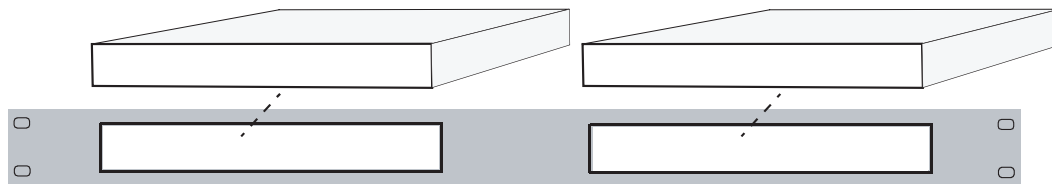
BBG-4490-CWDM-4

BBG-4490-CWDM-4 provide 4-in mux or 4-out demux which can be used as standalone, or used as 1RU triple rack-mounted using optional RMT mounting panel



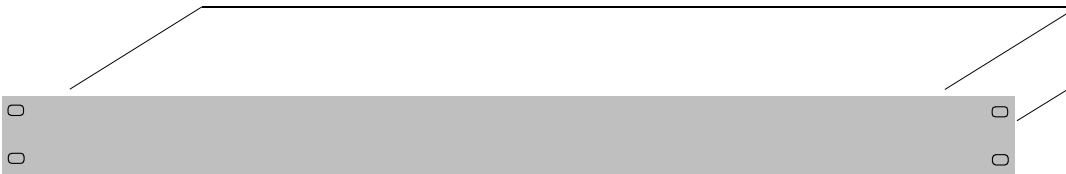
BBG-4490-CWDM-8

BBG-4490-CWDM-8 provide 8-in mux or 8-out demux which can be used as standalone, or used as 1RU dual rack-mounted using optional RMD mounting panel

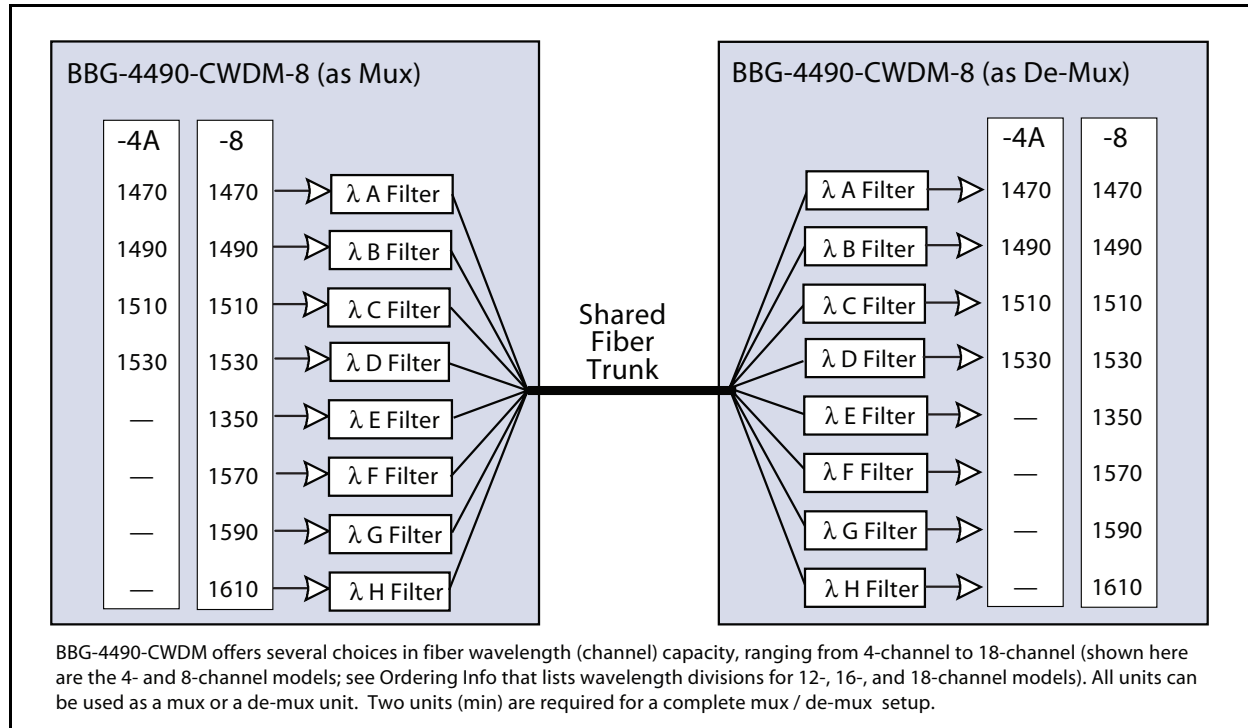


BBG-4490-CWDM-12 BBG-4490-CWDM-16 BBG-4490-CWDM-18

These units (available as 12, 16, or 18-channel) provide multi-channel mux or demux and are available each as an integral 1RU unit



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SPECIFICATIONS

Filter Wavelengths

See Ordering Information

Central Wavelength Accuracy

< ± 1nm

In-band Ripple

0.5 dB

Passband Width @ 0.5 dB

> 13 nm

Insertion Loss

<= 3.6 dB

Adjacent Channel Isolation

>= 15 dB

Non-adjacent Channel Isolation (demux usage)

>= 40 dB

Uniformity

3 dB (max)

Polarization-dependent Loss

0.15 dB (max)

Polarization Mode Dispersion

0.1 ps (max)

Return Loss

50 dB (min)

Directivity

50 dB (min)

Temperature Stability

0.007 dB/°C (max)

Temperature Wavelength Drift

0.005 nm/°C (max)

Power Handling

300 mW (max)

Tensile Load

5N (max)

Temperature Range

0-70°C (operating)

-40 to +85°C (storage)

ORDERING INFORMATION

BBG-4490-CWDM-4A-XX 4-Channel CWDM Mux/Demux; 1470-1490-1510-1530 nm. (3 units per 1RU optional mounting panel)

BBG-4490-CWDM-4B-XX 4-Channel CWDM Mux/Demux; 1550-1570-1590-1610 nm. (3 units per 1RU optional mounting panel)

BBG-4490-CWDM-8-XX 8-Channel CWDM Mux/Demux; 1470-1490-1510-1530-1550-1570-1590-1610 nm. (2 units per 1RU optional mounting panel)

BBG-4490-CWDM-12-XX 12-Channel CWDM Mux/Demux; 1270-1290-1310-1330-1350-1370-1390-1410-1430-1450-1470-1490-1510-1530-1550-1570-1590-1610 nm. (1RU unit)

BBG-4490-CWDM-16-XX 16-Channel CWDM Mux/Demux; 1310-1330-1350-1370-1390-1410-1430-1450-1470-1490-1510-1530-1550-1570-1590-1610 nm. (1RU unit)

BBG-4490-CWDM-18-XX 18-Channel CWDM Mux/Demux; 1270-1290-1310-1330-1350-1370-1390-1410-1430-1450-1470-1490-1510-1530-1550-1570-1590-1610 nm. (1RU unit)

BBG-4490-CWDM-OS-1x2-SC 1x2 50/50 Optical Splitter. SC connectors only. <3.5 dBm insertion loss. (3 units per 1RU optional mounting panel)

BBG-4490-RM3 Rack Mounting Panel; 3-device. Provides 1RU rack mounting for up to three BBG-4490-CWDM-4A, 4B, and/or BBG-4490-CWDM-OS.

BBG-4490-RM2 Rack Mounting Panel; 2-device. Provides 1RU rack mounting for up to two BBG-4490-CWDM-8.

BBG-4490-RM3-BLANK Blank Panel insert for BBG-4490-RM3 Rack Mounting Panel above

BBG-4490-RM2-BLANK Blank Panel insert for BBG-4490-RM2 Rack Mounting Panel above

Note: All units can be used as multiplexer or de-multiplexer. **Two** units are required for a complete mux / de-mux setup. Where operating wavelength differences are specified, make certain mux/demux pair is ordered with correspondingly matched wavelengths.

Note: Add fiber connector suffix to part numbers to specify fiber connection type (LC, ST, SC, FC). (For example, BBG-4490-CWDM-4A-XX fitted with LC connectors is ordered as BBG-4490-CWDM-4A-LC".)