

# WDMs (CWDMs and DWDMs)

## Cassettes and Modules

WDMs (CWDMs and DWDMs) combine or separate signals with different wavelengths on an optical fiber.

This allows for bidirectional communication and a multiplication of capacity on a single fiber.

ARIA WDMs are manufactured using a proprietary optical bench platform which significantly improves optical performance and reduces manufacturing cost.

These modules are highly customizable and are available in 3 primary size formats: module, LGX cassette, and 2U LGX cassette.



### Features

- GR-1221-CORE Compliant
- Corning SMF-28e Singlemode Fiber
- Low Insertion Loss
- Wide Passband
- High Channel Isolation
- High Stability and Reliability
- Epoxy Free on the Optical Path
- Compact Sized Modules Available

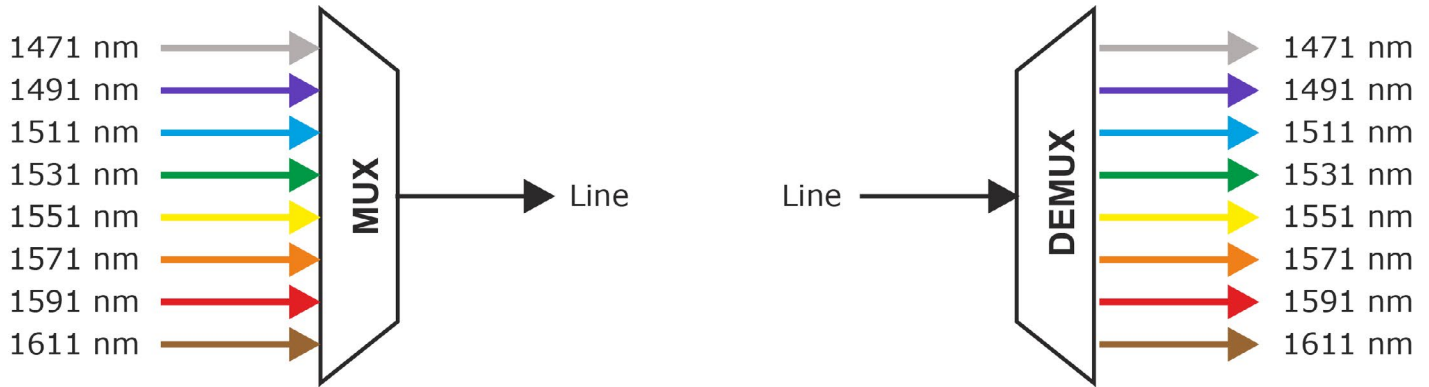
### Applications

- Line Monitoring
- WDM Network
- Telecommunication
- Cellular Network
- Fiber Optic Amplifier
- Access Network

### Splice Tray Support for Modules



### Example 8CH WDM Muxing and Demuxing Function



### Pre-Terminated Configurations Available



### Formats



Module

Micro HD Cassette

LGX Cassette

2U LGX Cassette

### Specifications

<b>Channel Passband (@-0.5dB bandwidth (nm))</b>	±6.5nm (CWDM) or 0.25nm (DWDM)
<b>Insertion Loss (dB)</b>	2CH: ≤0.5, 4CH: ≤1.5, 8CH: ≤2.5, 16CH: ≤3.5, 18CH: ≤3.5
<b>Channel Uniformity (dB)</b>	2CH: N/A, 4CH: ≤0.6, 8CH: ≤1.0, 16CH: ≤1.5, 18CH: ≤1.5
<b>Channel Ripple (dB)</b>	0.3
<b>Adjacent Channel Isolation (dB)</b>	>30
<b>Non-Adjacent Channel Isolation (dB)</b>	>40
<b>Insertion Loss Temperature Sensitivity (dB/°C)</b>	<0.005
<b>Wavelength Temperature Shifting (nm/°C)</b>	<0.002
<b>Polarization Dependent Loss (dB)</b>	<0.1
<b>Polarization Mode Dispersion (ps)</b>	<0.1
<b>Directivity (dB)</b>	>50
<b>Return Loss (dB)</b>	>45
<b>Maximum Power Handling (mW)</b>	300
<b>Operating Temperature (°C)</b>	-10~+75
<b>Storage Temperature (°C)</b>	-40~+85
<b>Module Size (Depends on Configuration) (mm)</b>	44 x 28 x 6 or 54 x 28 x 8 or 50 x 50 x 6 or 100 x 80 x 10 or 120 x 80 x 18 or 140 x 115 x 18
<b>LGX Cassette Package Size (mm)</b>	28 x 129 x 100
<b>2U LGX Cassette Package Size (mm)</b>	58 x 129 x 100
<b>Micro HD Cassette Package Size (mm)</b>	16 x 129 x 105

# WDMs (CWDMs and DWDMs)

## Cassettes and Modules

### Part Number

# WDM-



#### 1 Component Format

MOD = Module  
 LGX = LGX Cassette  
 2U = 2U LGX Cassette  
 MHD = Micro HD Cassette

#### 2 Channels

XX = XX Channels

Note: Micro HD Cassettes support up to 13 channels

#### 3 WDMs per Component

1 = 1 WDM  
 2 = 2 WDMs  
 3 = 3 WDMs  
 4 = 4 WDMs

#### 4 Mux or Demux

MX = Mux  
 DX = Demux  
 MD = Mux/Demux  
 DF = Dual Fiber (One Mux and One Demux)

#### 5 Upgrade Port

0 = No Upgrade Port  
 U = Upgrade Port

#### 6 Test/Monitor Port

0 = No Test Port  
 T = Test Port

#### 7 1310nm Express Port

0 = No 1310nm Express Port  
 E = 1310nm ( $\pm 50$ nm) Express Port  
 W = Wide (1260-1458nm) Express Port

#### 8 Starting Channel

XX = XXCH or 1XX0nm

#### 9 Channel Spacing

20 = 20nm spacing for CWDMs  
 1 = 1CH spacing for DWDMs\*  
 2 = 2CH spacing for DWDMs\*  
 60 = 60nm for 1550nm & 1610nm  
 240 = 240nm for 1310nm & 1550nm

\*100 GHz Spacing

#### 10 Connector Type

000 = Fiber Only  
 SCU = SC/UPC  
 SCA = SC/APC  
 LCU = LC/UPC  
 LCA = LC/APC  
 FCU = FC/UPC  
 FCA = FC/APC  
 STU = ST/UPC

Note: Micro HD Cassettes support SC or LC only

#### 11 Fiber Diameter

000 = Adapters Only  
 250 = 250 $\mu$ m  
 900 = 900 $\mu$ m  
 2MM = 2.0mm

#### 12 Fiber Length

00 = Adapters Only  
 05 = 0.5 Meter  
 10 = 1.0 Meter  
 20 = 2.0 Meters  
 30 = 3.0 Meters  
 40 = 4.0 Meters

#### 13 Fiber Color

00 = Adapters Only  
 CC = Color Coded  
 BL = Blue  
 OR = Orange  
 GR = Green  
 BR = Brown  
 SL = Slate  
 WT = White  
 RD = Red  
 BK = Black  
 YL = Yellow  
 VL = Violet  
 RS = Rose  
 AQ = Aqua

Note: For dual fiber WDM configurations with different fiber colors, duplicate this section and add DX or MX to the end to designate the fiber color for demuxing or muxing ports