

# Wavelength Mux (WM1)

## Next Generation PON | NG-PON2

### Description

The Wavelength Mux (WM1) is a passive device used to support Next Generation PON (NG-PON2) with up to 40 Gigabit capacity via 4 wavelengths (4x10G per port) and advancing to 80 Gigabit capacity via 8 wavelengths (8x10G per port) in the future. The Wavelength Mux combines and separates the 4 downstream (L-Band) and upstream (C-Band) wavelengths over a single fiber.

Premium optical components and high-quality connectivity ensure superior performance, the lowest loss, and robust network reliability.

WMs are available in several housing options: LGX<sup>®</sup> module, ruggedized cassette, rack-mount, and customized housings.

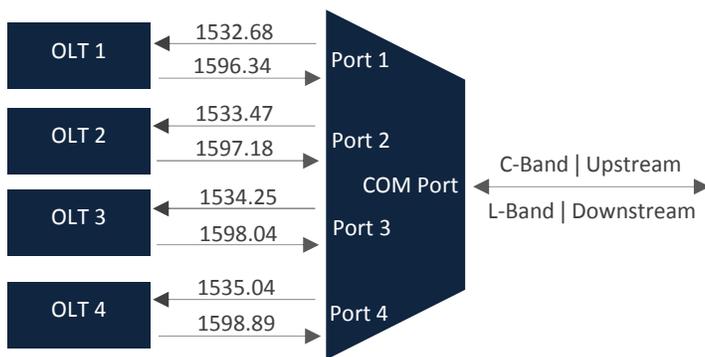
### Features

- ) Low insertion loss
- ) High isolation
- ) Excellent environmental & mechanical stability
- ) Premium grade components & connectivity
- ) Available with Monitoring ports
- ) GR-63-CORE, ITU-T G989, RoHS compliant



2x WM1 LC High-Density LGX<sup>®</sup> Module  
(note: 2 WM1's in a single LGX<sup>®</sup> Module with LC adapters)

### Wavelength Mux 4 Channel diagram



C-Band wavelengths: 1532.68 | 1533.47 | 1534.25 | 1535.04  
L-Band wavelengths: 1596.34 | 1597.18 | 1598.04 | 1598.89

Common	Common
1532.68 / 1596.34	1532.68 / 1596.34
1533.47 / 1597.18	1533.47 / 1597.18
1534.25 / 1598.04	1534.25 / 1598.04
1535.04 / 1598.89	1535.04 / 1598.89

2x WM1 wavelength port designation

2x WM1 LC High-Density LGX Module

# Wavelength Mux (WM1)

Next Generation PON | NG-PON2

2x WM1 LC High-Density LGX Module

## Optical specifications

Parameter	Value
Central wavelength (nm)	1532.68 / 1596.34   Port 1 1533.47 / 1597.18   Port 2 1534.25 / 1598.04   Port 3 1535.04 / 1598.89   Port 4 Common port   Port 5
Passband   Channel ports 1 – 4 (nm)	± 0.12
Insertion loss (includes connectors) (dB)	2.0   C-Band Upstream 2.0   L-Band Downstream
Passband ripple (dB)	0.40
Isolation (dB)	32   Adjacent channel 36   Non-Adjacent Channel 11   O-Band, GPON/XG-PON, RF, L-Band
Directivity (dB)	55
Return loss all ports	50
Polarization dependent loss (dB)	0.30
Polarization mode dispersion (ps)	0.20
Maximum optical power (mW)	300
Operating temperature (°C)	-5 to +75
Storage temperature (°C)	-40 to +85
Reliability	GR-63-CORE, ITU-T G989

## Housing dimensions

LGX <sup>®</sup> single slot wide module (mm)	129 x 125 x 28
Connector/Adapter type for all ports	LC/UPC

Premium-Grade connectors and adapters

## Ordering information

**Part number:** MFT-M/NGP2-WM-LCU/LCU(2)

**Description:** 2x Wavelength Mux WM1 LC High-Density LGX Module

Available in all the following adapters (connectors): LC/APC, LC/UPC, SC/APC, SC/UPC

Note: Other housing options available in ruggedized cassette, rack-mount, and custom