

# Cisco ONS 15216 8-Channel CWDM Multiplexer/Demultiplexer

The Cisco® ONS 15216 8-Channel CWDM Multiplexer/Demultiplexer is a passive unit that in the transmit direction, combines eight ITU-T G.694.2 coarse wavelength-division multiplexing (CWDM) wavelengths into a composite signal. In the receive direction, the unit separates a composite signal into eight individual wavelengths.

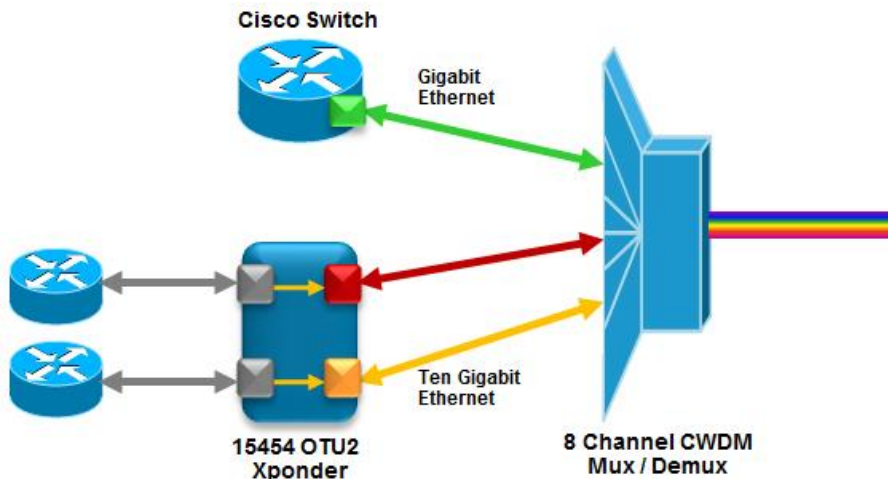
## Applications

The Cisco ONS 15216 8-Channel CWDM Multiplexer/Demultiplexer (Figure 1) is ideal for building point-to-point networks with limited scale requirements. Gigabit Ethernet and Fibre Channel (1-, 2-, and 4-Gbps) CWDM wavelengths can be provisioned using Cisco CWDM Small Form-Factor Pluggable (SFP) units housed directly in Cisco routers and switches, while 10-Gbps CWDM wavelengths are supported through the Multirate DWDM OTU2 XPonder Card for the Cisco ONS 15454 MSTP card hosting CWDM 10-Gigabit Small Form-Factor Pluggable (XFP) units. This card supports two wavelengths and can be housed in the Cisco ONS 15454 M2 or M6 chassis, providing a small, cost-effective, AC-powered solution for 10-Gbps CWDM applications.

**Figure 1.** Cisco ONS 15216 8-Channel CWDM Multiplexer/Demultiplexer



**Figure 2.** A CWDM Network with a Mix of 1-Gbps and 10-Gbps Wavelengths



## Edge Mounting Bracket

The Cisco ONS 15216 8-Channel CWDM Multiplexer/Demultiplexer occupies two positions in the Cisco ONS 15216 Edge Mounting Bracket. The mounting bracket occupies one rack unit (1RU) and mounts into a standard 19-inch rack. It has four positions for mounting Optical Add/Drop Multiplexers (OADMs).

**Figure 3.** Mounting Bracket



## Features and Benefits

The Cisco ONS 15216 product family provides the following customer benefits:

- Cost-effectiveness for point-to-point, low-channel-count applications
- Best-in-class operational efficiency, with zero electrical power requirements
- Low optical insertion loss for improved distance and performance

## Product Specifications

Tables 1 through 4 provide optical, mechanical, and compliance specifications for the muxponder/demuxponder.

**Table 1.** Cisco ONS 15216 8-Channel CWDM Muxponder/Demuxponder Channel Plan

Channel ID	Frequency (THz)	Wavelength (nm)
1	195.9	1470.00
2	195.8	1490.00
3	195.7	1510.00
4	195.6	1530.00
5	195.5	1550.00
6	195.4	1570.00
7	195.3	1590.00
8	195.2	1610.00

**Table 2.** Optical Specifications

Parameters	Minimum	Maximum
Channel center wavelengths	1470 nm	1610 nm
Channel spacing	20 nm	
Maximum input optical power	500 mW	
Insertion loss	0.8 dB	3.5 dB
Drop adjacent channel isolation	30 dB	
Drop nonadjacent channel isolation	45 dB	
Add adjacent channel isolation	30 dB	
Add nonadjacent channel isolation	45 dB	
Add CrossTalk	14 dB	
Return loss	45 dB	
Monitor add/drop loss	17.5 dB	21.5 dB

Parameters	Minimum	Maximum
Filter type	A-thermal array waveguide	A-thermal array waveguide
Polarization dependent loss (PDL)	0.2 dB	0.2 dB
Polarization mode dispersion (PMD)	0.1 ps	0.1 ps
Insertion loss uniformity	1 dB	1 dB
Chromatic dispersion (CD)		± 20.0 ps/nm

**Table 3.** Environmental and Mechanical Specifications

Part Number	Parameters	Minimum	Maximum
15216-HD-EXT-PNL= 15216-FLC-CWDM-8=	Operating temperature range	32°F (0°C)	158°F (+70°C)
15216-HD-EXT-PNL= 15216-FLC-CWDM-8=	Storage temperature range	−40°F (−40°C)	185°F (+85°C)
15216-HD-EXT-PNL=	Height		1.744 in. (44.298 mm)
	Width		19 in. (482.6 mm)
	Depth		0.394 in. (10.018 mm)
	Weight		0.5 lb (0.22679618 kg)
	Humidity	5% noncondensing	95% noncondensing
15216-FLC-CWDM-8=	Height		1.385 in. (35.179 mm)
	Width		7.047 in. (178.994 mm)
	Depth		6.496 in. (164.998 mm)
	Weight		3 lb (1.36 kg)
	Humidity	5% noncondensing	95% noncondensing
	USB port power	400 mW	600 mW
Connector type	LC UPC II		
USB	Type A		

**Table 4.** Regulatory Compliance

Description	Specification
Safety	GR-1089 UL60950/CSA 22.2 No. 60950-00 IEC 60950
Environmental	GR-63-CORE

Table 5 provides ordering information for the multiplexer/demultiplexer and edge mounting bracket.

**Table 5.** Ordering Information

Part Number	Product Name
15216-HD-EXT-PNL=	Cisco ONS 15216 Edge Mounting Bracket
15216-FLC-CWDM-8=	Cisco ONS 15215 8-Channel CWDM Muxponder/Demuxponder

## Ordering Information

To place an order, visit the [Cisco Ordering Home Page](#). To download software, visit the [Cisco Software Center](#).

## For More Information

For more information, visit [ONS 15216](#), or contact your local account representative. Also visit [Cisco End-of-Life Policy](#) and [Subscribe](#) to receive end-of-life and end-of-sale information.



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