

Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel

Product Overview

The Cisco® ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel is a standalone unit that contains both a 40-channel optical multiplexer and a 40-channel optical demultiplexer, precabled within the unit's housing. Two models are available: 15216-EF-40-ODD includes the odd-numbered frequencies as defined by ITU G.694.2, while 15216-EF-40-EVEN includes the even-numbered frequencies. The two units can be combined using the Cisco ONS 15216 48 Channels 50 GHz De-Interleaver with Coupler for an in-service capacity upgrade from 40 to 80 channels.

The Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel is identical to the existing Cisco ONS 15216 Mux/Demux 40-Channel Patch Panel, with the exception of a simpler fiber management system. This is achieved by replacing the moving parts and door with lateral clips and tie wraps for fiber and USB cable management as shown in Figure 1.

Figure 1. Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel



The physical arrangement of the ports also differs from that of the Cisco ONS 15216 40-Channel Mux/Demux Patch Panel. Instead of 10 columns and 4 rows to accommodate the 40 channels, ports are now arranged in 8 columns and 5 rows. The placement of the clips provides optimal fiber routing, facilitating the addition of fibers in an incremental manner and resulting in a simple design that is easy to maintain and troubleshoot. A separate tie wrap is provided for fastening the USB cable used for passive inventory management.

Figures 2 through 4 illustrate the different application configurations in which the Cisco ONS 15216 Mux/Demux Patch Panels can be deployed.

Figure 2. 40-Channel Standalone Configuration

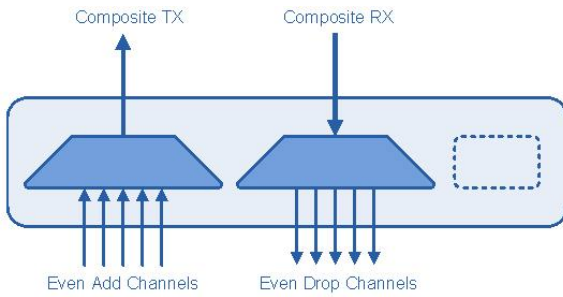


Figure 3. 40-Channel In-Service Upgrade to 80 Channel Standalone Configuration

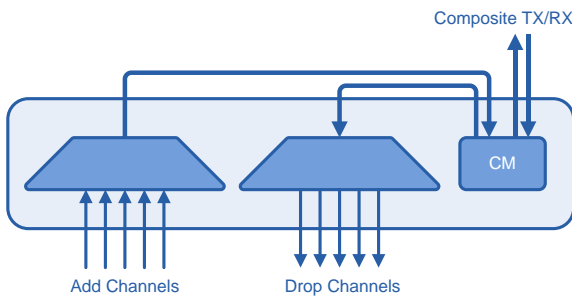
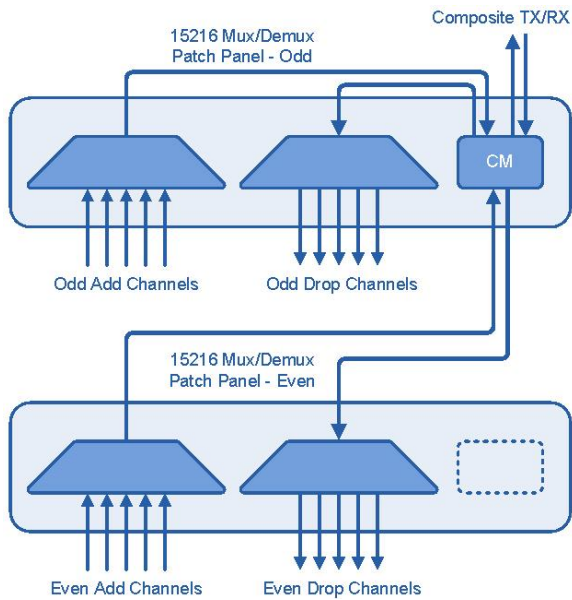


Figure 4. 80 Channel Standalone Configuration



The Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel can also be used as the add/drop stage of the Cisco ONS 15454 MSTP SMR-1, SMR-2, and 80-WXC Reconfigurable Add/Drop Multiplexers (ROADMs), as shown in Figures 5 and 6.

Figure 5. Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Odd Patch Panel Single Module ROADM Configuration

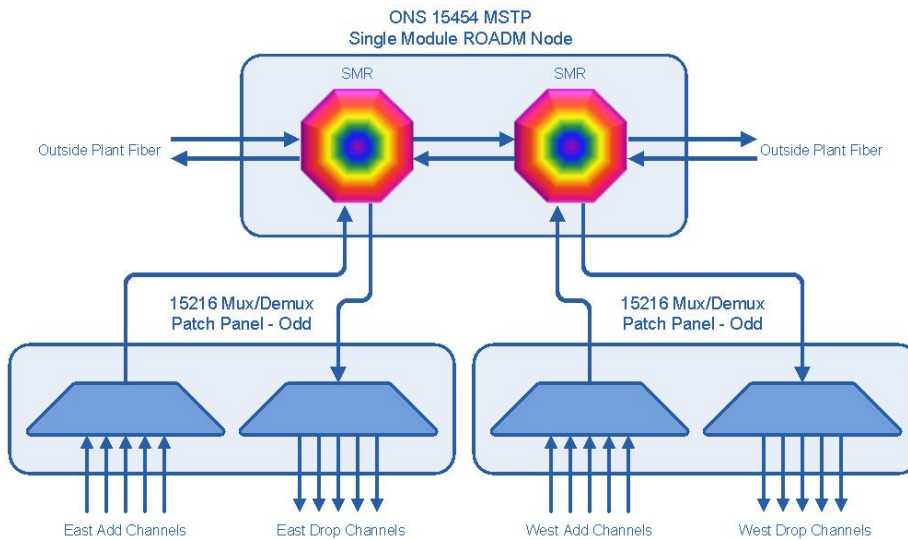
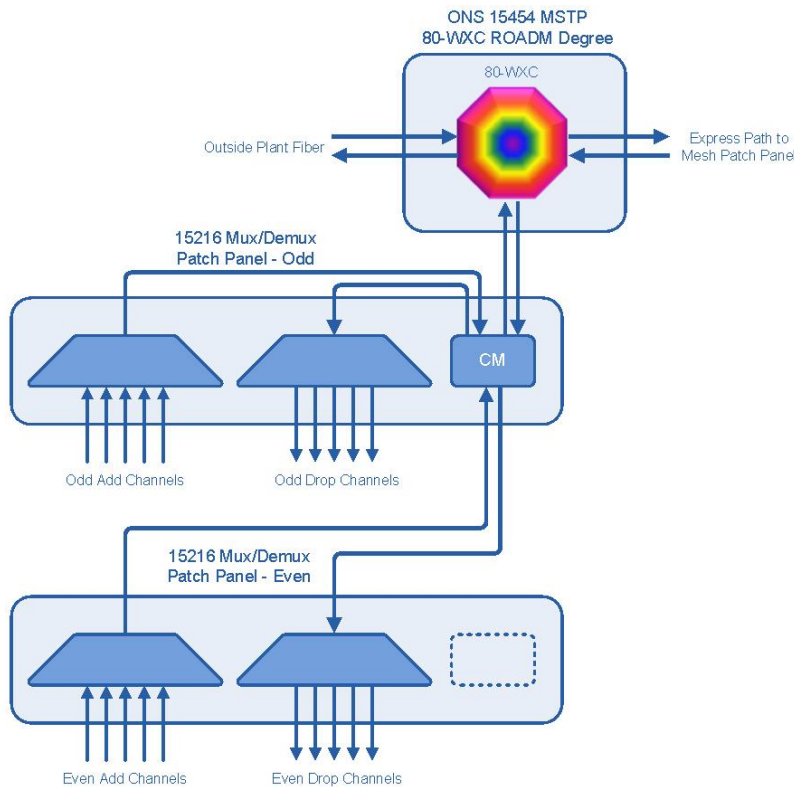


Figure 6. Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Odd/Even Patch Panel 80-WXC ROADM Configuration



Major Features and Benefits

The Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panels provide the following customer benefits:

- Cost-effectiveness for dense wavelength-division multiplexing (DWDM) hub or terminal applications; ideal for point-to-point data center interconnections
- Best-in-class operational efficiency with zero electrical power requirements
- No moving parts, providing easy installation and troubleshooting
- Fiber management plate with integrated clips for secure but easy fiber access
- Tie wraps for fastening USB cables
- Integrated cable routing guides that determine fiber bend radius to maintain optimal optical performance, also preventing fibers from becoming pinched
- Low optical insertion loss for improved distance and performance
- USB port for passive inventory
- Preassembled unit

Product Specifications

Table 1 provides the channel plan for the Cisco ONS 15216 Exposed Faceplate Mux/Demux 48 Channel Patch Panel. Tables 2 through 4 provide optical and mechanical specifications.

Table 1. Cisco ONS 15216 Exposed Faceplate Mux/Demux 40-Channel Patch Panel Channel Plan

Channel Wavelength					
15216-MD-40-ODD			15216-MD-40-EVEN		
Channel ID	Frequency (THz)	Wavelength (nm)	Channel ID	Frequency (THz)	Wavelength (nm)
1	195.9	1530.33	1	195.85	1530.72
2	195.8	1531.12	2	195.75	1531.51
3	195.7	1531.90	3	195.65	1532.29
4	195.6	1532.68	4	195.55	1533.07
5	195.5	1533.47	5	195.45	1533.86
6	195.4	1534.25	6	195.35	1534.64
7	195.3	1535.04	7	195.25	1535.43
8	195.2	1535.82	8	195.15	1536.22
9	195.1	1536.61	9	195.05	1537.00
10	195.0	1537.40	10	194.95	1537.79
11	194.9	1538.19	11	194.85	1538.58
12	194.8	1538.98	12	194.75	1539.37
13	194.7	1539.77	13	194.65	1540.16
14	194.6	1540.56	14	194.55	1540.95
15	194.5	1541.35	15	194.45	1541.75
16	194.4	1542.14	16	194.35	1542.54
17	194.3	1542.94	17	194.25	1543.33
18	194.2	1543.73	18	194.15	1544.13
19	194.1	1544.53	19	194.05	1544.92
20	194.0	1545.32	20	193.95	1545.72
21	193.9	1546.12	21	193.85	1546.52

Channel Wavelength					
15216-MD-40-ODD			15216-MD-40-EVEN		
Channel ID	Frequency (THz)	Wavelength (nm)	Channel ID	Frequency (THz)	Wavelength (nm)
22	193.8	1546.92	22	193.75	1547.32
23	193.7	1547.72	23	193.65	1548.11
24	193.6	1548.51	24	193.55	1548.91
25	193.5	1549.32	25	193.45	1549.72
26	193.4	1550.12	26	193.35	1550.52
27	193.3	1550.92	27	193.25	1551.32
28	193.2	1551.72	28	193.15	1552.12
29	193.1	1552.52	29	193.05	1552.93
30	193.0	1553.33	30	192.95	1553.73
31	192.9	1554.13	31	192.85	1554.54
32	192.8	1554.94	32	192.75	1555.34
33	192.7	1555.75	33	192.65	1556.15
34	192.6	1556.55	34	192.55	1556.96
35	192.5	1557.36	35	192.45	1557.77
36	192.4	1558.17	36	192.35	1558.58
37	192.3	1558.98	37	192.25	1559.39
38	192.2	1559.79	38	192.15	1560.20
39	192.1	1560.61	39	192.05	1561.01
40	192.0	1561.42	40	191.95	1561.83

Table 2. 15216-EF-40-ODD/EVEN Optical Specifications

Parameter	Minimum	Maximum
Input optical power	300 mW	
Insertion loss	4 dB	6 dB
Drop adjacent channel isolation	20 dB	
Drop nonadjacent channel isolation	30 dB	
Drop CrossTalk	16 dB	
Add adjacent channel isolation	17 dB	
Add nonadjacent channel isolation	30 dB	
Add CrossTalk	14 dB	
Return loss	40 dB	
Monitor add/drop loss	18 dB	22 dB
Polarization dependent loss (PDL)		0.7 dB
Polarization mode dispersion (PMD)		0.5 ps
Insertion loss uniformity		1.5 dB
Chromatic dispersion (CD)		±12.0 ps/nm

Table 3. Environmental and Mechanical Specifications

Parameter	15216-EF-40-ODD=		15216-EF-40-EVEN=	
	Minimum	Maximum	Minimum	Maximum
Operating temperature range	41°F (–5°C)	149°F (65°C)	41°F (–5°C)	149°F (65°C)
Storage temperature range	–40°F (–40°C)	185°F (85°C)	–40°F (–40°C)	185°F (85°C)
Dimensions height		3.45 in. (87.6 mm)		3.45 in. (87.6 mm)
Dimensions width		17.21 in. (437.1 mm)		17.21 in. (437.1 mm)
Dimensions depth		10.89 in. (276.7 mm)		10.89 in. (276.7 mm)
Weight		10.36 lbs. (4.7 kg)		10.36 lbs. (4.7 kg)
Humidity	5%	95%	5%	95%
USB port power	400 mW	600 mW	400 mW	600 mW

Table 4. Regulatory Compliance

Safety	Environmental
GR-1089-Issue 6 UL60950-1 IEC 60950-1 Ed.2	GR-63-CORE Issue 3

Table 5 provides ordering information. To place an order, visit the [Cisco Ordering Home Page](#). To download software, visit the [Cisco Software Center](#).

Table 5. Ordering Information

Part Number	Description
15216-EF-40-ODD=	ONS 15216 40-Channel Mux/DeMux Exposed Faceplate Patch Panel Odd
15216-EF-40-EVEN=	ONS 15216 40-Channel Mux/DeMux Exposed Faceplate Patch Panel Even

For More Information

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



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