8ch C53-C60 DWDM Mux Demux + Expansion Port

FMU Plug-in Module, LC/UPC
Data Center & Cloud Computing Infrastructure Solutions

Overview

The DWDM passive Mux Demux modules deliver the benefits of a Dense Wave Division Multiplexer in a fully passive solution. They are designed for long-haul transmission where wavelengths are packed tightly together over the C-band range of wavelengths, up to 48 wavelengths in 100GHz grid(0.8nm) and 96 wavelengths in 50GHz grid(0.4nm). ITU G.694.1 standard and Telcordia GR1221, GR1209, CE, RoHS, FCC are compliant.

Our DWDM Mux Demux are modular, scalable and are perfectly suited to transport PDH, SDH / SONET, ETHERNET services over WWDM, CWDM and DWDM in optical metro edge and access networks.

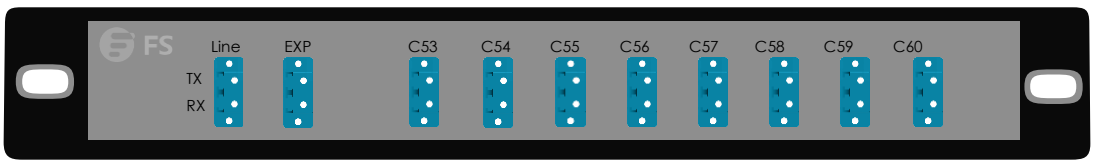
Highlights

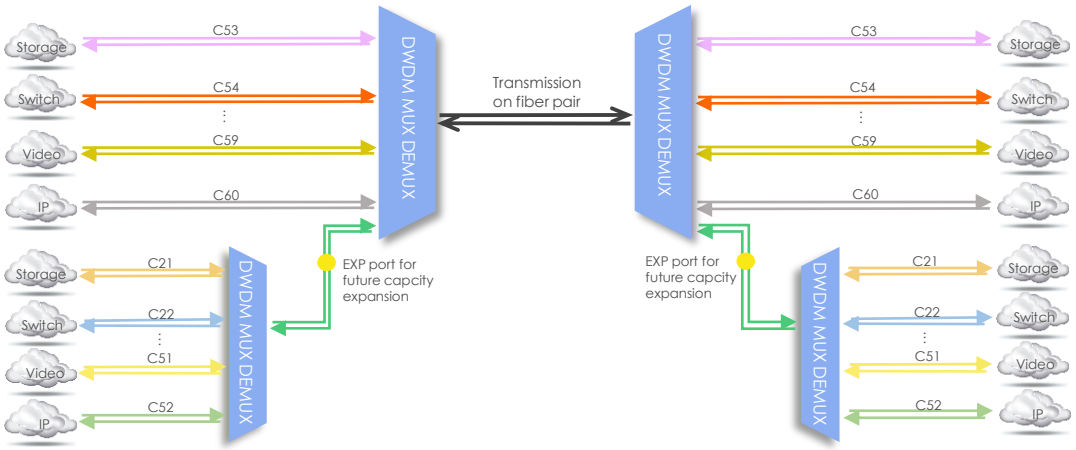
- Multiplexing of 8 channels on fiber pair
- Low insertion loss
- Low-profile modular design, fits in FMU 2-slot 1U chassis
- LC/UPC connectors
- Expansion port for future capacity expansion
- Compliant to ITU G.694.1, 100GHz ITU gird, 0.8 nm spacing
- High quality thin film filter technology
- Passive, no electricity needed (MTBF ca. 500 years)

General Specification

Front View	Function

30568





Technical Data

Parameter	Value
ITU Channel	8 channels C53-C60 (DWDM ports)
Operating Wavelength	1529.55-1535.04nm
Channel Spacing	100GHz (0.8nm)
Channel Passband	±0.11nm
Center Wavelength Accuracy	±0.05nm
Insertion Loss	≤ 3.0dB
Insertion Loss (Exp port)	≤ 3.0 dB
Adjacent Channel Isolation	≥ 30dB
Non-adjacent Channel Isolation	≥ 40dB
Filter Technology	TFF (Thin Film Filter)
Passband Ripple	≤0.5dB
Return Loss	≥ 45dB
Directivity	≥ 45dB
Polarzation Dependent Loss	≤ 0.3dB
Polarization Mode Dispersion	≤ 0.1ps
Power Handling	≤ 500mW
Operating Temperature	-5° C~ +75° C
Storage Temperature	-40° C~ +85° C

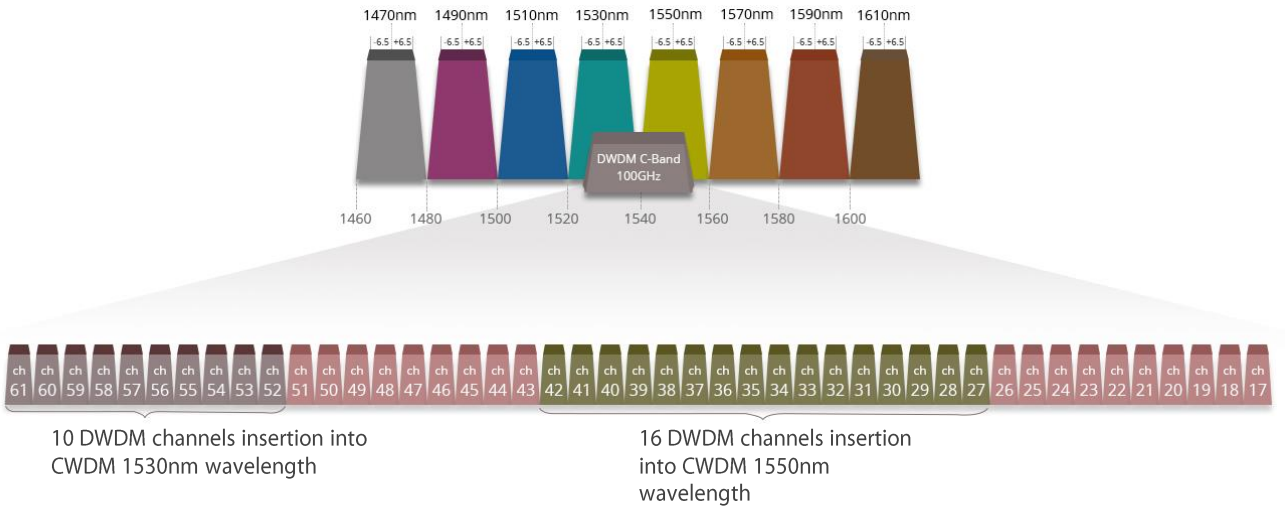
Notes:

1.Specified with connectors and adapters.

Hybrid CWDM/DWDM System

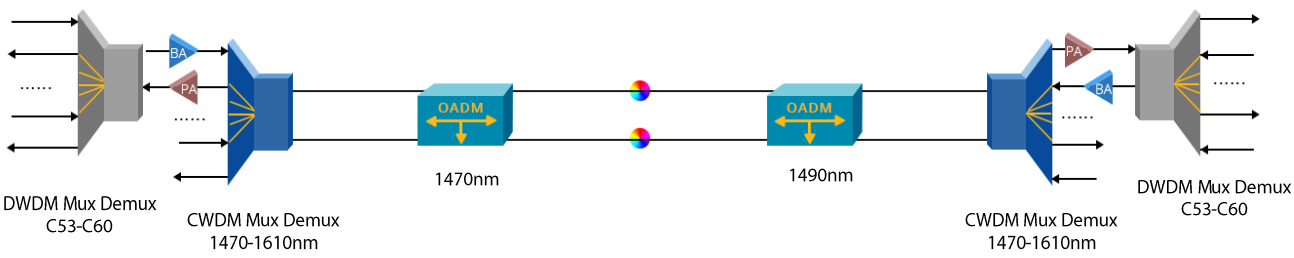
DWDM wavelengths are within the wavelength range of CWDM, which have much smaller channel spacing, so CWDM wavelengths near DWDM can be used to transmit the DWDM wavelengths. A hybrid C/DWDM system is built to expand the existing CWDM system, keeping initial startup costs low.

CWDM Channels (Bandwidth)	DWDM Channels (Center Wavelength)
1530nm (±6.5nm)	C52-C61 (1528.77 - 1535.82nm)
1550nm (±6.5nm)	C27-C42 (1543.73 - 1555.75nm)



Solution Design

To meet customers' applications, connect 8ch C53-C60 DWDM Mux Demux to 1530nm channel of 8ch CWDM Mux Demux to achieve the hybrid. Boost amplifier is deployed to amplify the output of single channel, which optimize the residual and signal quality of the link.



High Quality DWDM Transceivers to Build a Passive DWDM System

FS.COM offers DWDM transceiver modules in SFP, SFP+ and XFP formats. Every optics is tested in real switches and full compatible with Cisco, Juniper, Arista, Brocade, Dell, Extreme, etc.

Transmission distances range from 20-120km for Gigabit speeds, and 40-120km for 10 Gigabit speeds, without the use of optical amplifiers.

DWDM-SFP10G-80

DWDM-XFP10G-80

DWDM-Tunable-XFP

DWDM-Tunable-SFP+

DWDM-SFP1G-ZX

DWDM Mux Demux Series

Application	ID#	Description
		40/16/8 CHANNELS DUAL FIBER
40 channels	#33485	40ch. DWDM Mux Demux, 100GHz, C21-C60, with monitor port, 3.0dB typical IL, 4.5dB max IL, duplex LC/UPC
40 channels	#35887	40ch. DWDM Mux Demux, 100GHz, C21-C60, with monitor port and 1310nm port, 3.5dB typical IL, 5.0dB max IL, duplex LC/UPC
40 channels	#79580	Flat-top 40ch. DWDM Mux Demux, 100GHz, C21-C60, duplex LC/UPC
16 channels	#72430	16ch. DWDM Mux Demux, 100GHz, C21-C36, with monitor port, expansion port and 1310nm port, IL ≤ 5.2dB, duplex LC/UPC
16 channels	#26569	16ch. DWDM Mux Demux, 100GHz, C27-C42, IL ≤ 4.6dB, duplex LC/UPC
16 channels	#57884	16ch. DWDM Mux Demux, 100GHz, C43-C58, with expansion port, IL ≤ 4.6dB, duplex LC/UPC
8 channels	#30568	8ch. DWDM Mux Demux, 100GHz, C53-C60, with expansion port, IL ≤ 3.2dB, duplex LC/UPC
8 channels	#72433	8ch. DWDM Mux Demux, 100GHz, C53-C60, with Monitor Port, Expansion Port and 1310nm Port, IL ≤ 3.7dB, duplex LC/UPC

16/8 CHANNELS SINGLE FIBER

16 channels	#78535	16ch. DWDM Mux Demux, 100GHz, C21-C36 for transceiver wavelengths, IL ≤ 4.3dB, LC/UPC
16 channels	#78536	16ch. DWDM Mux Demux, 100GHz, C45-C60 for transceiver wavelengths, IL ≤ 4.3dB, LC/UPC
8 channels	#50116	8ch. DWDM Mux Demux, 100GHz, C22-C36 for transceiver wavelengths, with expansion port, IL ≤ 4.6dB, LC/UPC
8 channels	#50117	8ch. DWDM Mux Demux, 100GHz, C21-C35 for transceiver wavelengths, with expansion port, IL ≤ 4.6dB, LC/UPC

*Standard products are listed above. Customized specifications are available upon request.

ITU Channel Guiding

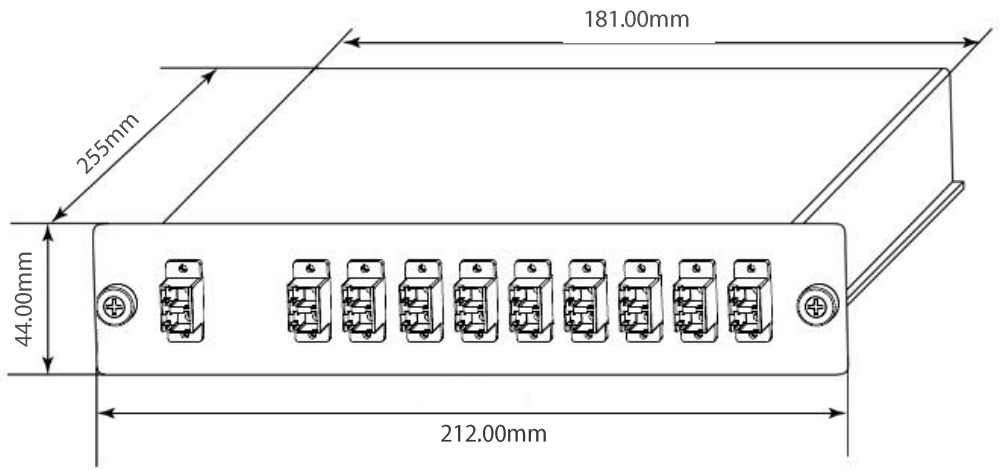
ITU Channel (xx or yy)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Wavelength (nm)	1560.61	1559.79	1558.98	1558.17	1557.36	1556.55	1555.75	1554.94	1554.13	1553.33	1552.52	1551.72	1550.92	1550.12	1549.32	1548.51	1547.72	1546.92	1546.12	1545.32

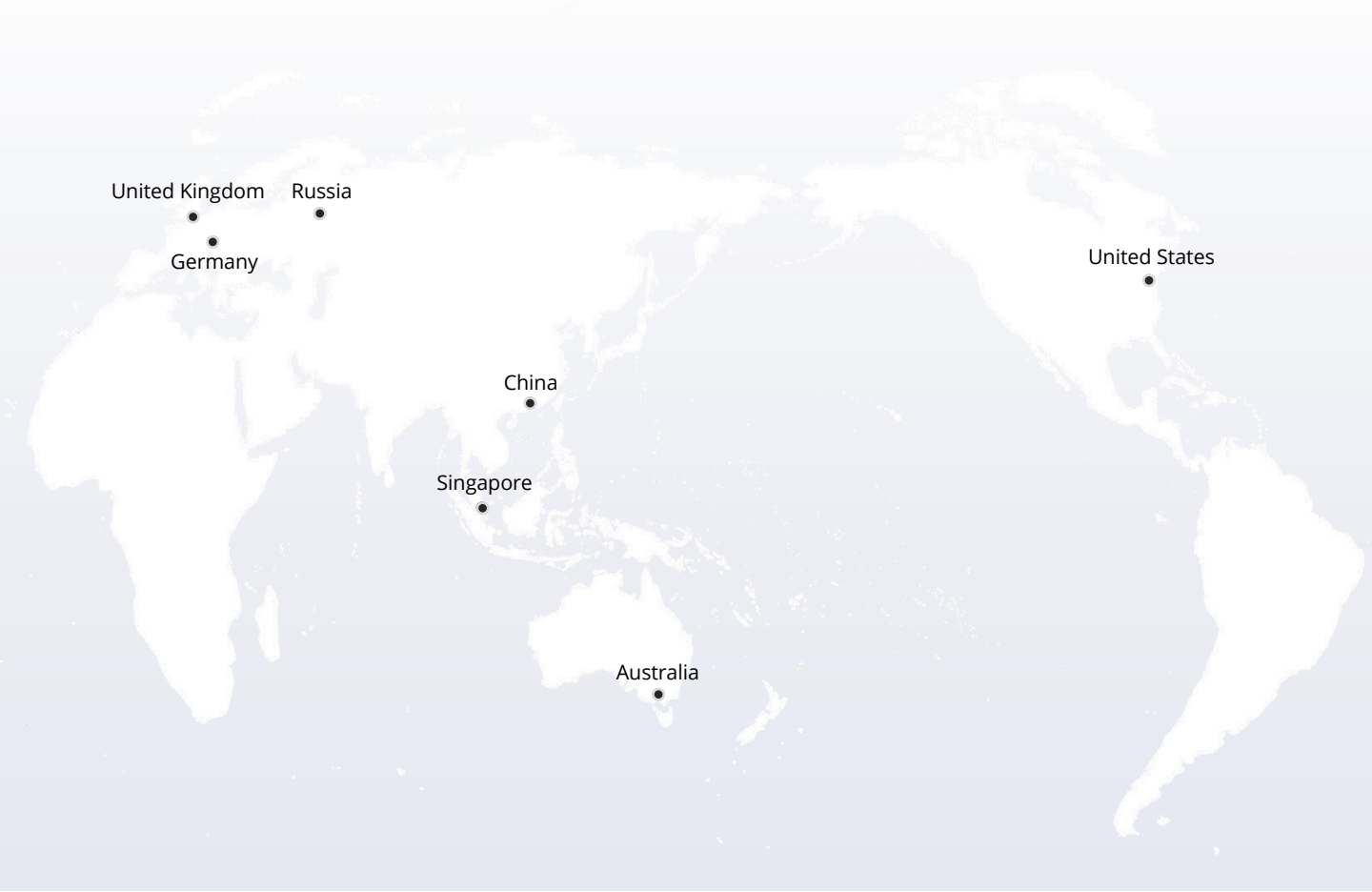
ITU Channel (xx or yy)	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Wavelength (nm)	1544.53	1543.73	1542.94	1542.14	1541.35	1540.56	1539.77	1538.98	1538.19	1537.40	1536.61	1535.82	1535.04	1534.25	1533.47	1532.68	1531.90	1531.12	1530.33	1529.55

Layout and Dimensions

- Width: 212.00mm (8.35")
- Height: 44.00mm (1.73")
- Depth: 255.00mm (10.04")

- The color of the module is black
- All fonts and lables are printed in black





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