

# DIGICOMM DWDM OPTICAL MULTIPLEXER/DEMULTIPLEXERS

(48 WAVELENGTH CHANNEL PLAN)



## FEATURES

- Available in both LGX and Field Cassette Versions
- LGX Modules are ½ Depth
- 100 GHz DWDM Channel Spacing (ITU G.694.1)
- ITU Channels 16-63
- LC/APC connectors
- Low-Insertion Loss
- Superior Flatness
- High-Isolation
- High-Directivity
- Extensive Inventory IN-STOCK at our Distribution Center in Englewood, CO

## PRODUCT OVERVIEW

Digicomm's family of 48 Wavelength Channel Plan compatible DWDM Optical Muxes/Demuxes are designed to maximize the capacity of existing fiber optic networks, which greatly reduces the need to construct new fiber optic plant. Digicomm's Muxes/Demuxes provide flexibility along with industry leading specifications, use the standard ITU channel plan (ITU G.694.1), supports 100 GHz channel spacing, and operate between ITU channels 16 and 63. Unparalleled flatness across the entire channel range assures maximum performance and eliminates the need to use separate multiplexers and demultiplexers. The superior temperature range of both the LGX and Field Cassette Muxes/Demuxes allows for use not only inside buildings, but also in field-based cabinets. Dual Test Ports and OTDR ports are included to help with network troubleshooting.

## TECHNICAL SPECIFICATIONS:

Form Factor	1X4	1X8	Dual 1X8	1X12	1X24	1X48	1X48 RED
	<i>LGX and Field Cassette</i>	<i>LGX and Field Cassette</i>	<i>LGX Only</i>	<i>LGX and Field Cassette</i>	<i>LGX and Field Cassette</i>	<i>LGX and Field Cassette</i>	<i>LGX Only</i>
<b>OPTICAL</b>							
Ch XX to COM Insertion Loss ( $\leq$ dB)(Max/Typ)	2.3/1.5	3.5/2.4	3.5/2.4	3.4/3.0	3.5/3.2	5.0/3.6	9.0/8.0
Flatness (dB)	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0	+/- 1.0
OTDR (1525-1550nm) ( $\leq$ dB)	$\leq$ 2.0	$\leq$ 2.0	$\leq$ 2.0	$\leq$ 2.0	$\leq$ 2.0	$\leq$ 2.0	$\leq$ 2.0
EXP (1260-1520 & 1580 1620 nm)( $\leq$ dB)(Typ)	$\leq$ 1.5	$\leq$ 1.8	$\leq$ 1.8	$\leq$ 1.8	Combined UPG $\leq$ 5 / EXP $\leq$ 2	$\leq$ 1.8	$\leq$ 5.8
UPG (1525-1570 nm excludes active channels)( $\leq$ dB)(Typ)	$\leq$ 1.8	$\leq$ 3.0	$\leq$ 3.0	$\leq$ 3.5		$\leq$ 3.6	$\leq$ 8.8
COM to TP Insertion Loss ( $\leq$ dB)	22	22	22	22	22	22	22
Optical Return Loss ( $\geq$ dB)	45	45	45	45	45	45	45
Polarization Dependent Loss, max ( $\leq$ dB)	0.1	0.1	0.1	0.15	0.2	0.3	0.3
Directivity (>dB)	50	50	50	50	50	50	50
Ripple ( $\leq$ dB)	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Adjacent Channel Isolation ( $\geq$ dB)(Min/Typ)	30/35	30/35	30/35	30/35	30/35	30/35	30/35
Non-Adjacent Channel Isolation, min ( $\geq$ dB)	40	40	40	40	40	40	40
<b>PHYSICAL*</b>							
<b>LGX MODULES</b>							
Dimensions (cm.)	12.9H, 7.6D, 2.9W	12.9H, 7.6D, 2.9W	12.9H, 7.6D, 2.9W	12.9H, 7.6D, 2.9W	12.9H, 7.6D, 2.9W	12.9H, 7.6D, 5.8W	12.9H, 7.6D, 5.8W
Dimensions (in.)	5.1H, 3.0D, 1.14W	5.1H, 3.0D, 1.14W	5.1H, 3.0D, 1.14W	5.1H, 3.0D, 1.14W	5.1H, 3.0D, 1.14W	5.1H, 3.0D, 2.3W	5.1H, 3.0D, 2.3W
<b>PHYSICAL**</b>							
<b>FIELD CASSETTE MODULES</b>							
Dimensions (cm.)	7L, 4.5W, 0.8T	7L, 4.5W, 0.8T	N/A	8L, 6W, 0.8T	16L, 9W, 0.8T	16L, 9W, 1T	N/A
Dimensions (in.)	2.8L, 1.8W, 0.31T	2.8L, 1.8W, 0.31T	N/A	3.15L, 2.36W, 0.31T	6.3L, 3.55W, 0.31T	6.3L, 3.55W, 0.4T	N/A
<b>ENVIRONMENTAL</b>							
Storage Temperature	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C
Operating Temperature	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C

\*Dimensions for LGX Modules are shown as Height, Depth and Width

\*\*Dimensions for Field Cassettes are shown as Length, Width and Thickness

## ORDERING INFORMATION:

Part Number	Description
<b>1X48 LGX Modules</b>	
FOMD-DWDM-LGX-48-1663-LA	MUX/DEMUX, DWDM LGX 48CH 16-63, LC/APC, COM, DTP, OTDR, UPG, EXP
FOMD-DWDM-RED-LGX-48-1663-LA	MUX, DWDM LGX 48CH 16-63, LC/APC, COM1 & COM2, OTDR1 & OTDR2, EXP, UPG, TPTX, TPRX
<b>1X24 LGX Modules</b>	
FOMD-DWDM-LGX-24-1639-LA	MUX, DWDM LGX 24CH 16-39, LC/APC, COM, OTDR, UPG/EXP, IN/OUT TP
FOMD-DWDM-LGX-24-4063-LA	MUX, DWDM LGX 24CH 40-63, LC/APC, COM, OTDR, UPG/EXP, IN/OUT TP
<b>1X12 LGX Modules</b>	
FOMD-DWDM-LGX-12-1627-LA	MUX, DWDM LGX 12CH 16-27 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-12-2839-LA	MUX, DWDM LGX 12CH 28-39 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-12-4051-LA	MUX, DWDM LGX 12CH 40-51 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-12-5263-LA	MUX, DWDM LGX 12CH 52-63 LC/APC, COM, DTP, OTDR
<b>1X8 LGX Modules</b>	
FOMD-DWDM-LGX-8-1623-DTP-LA	MUX, DWDM LGX 8CH 16-23 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-8-2431-DTP-LA	MUX, DWDM LGX 8CH 24-31 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-8-3239-DTP-LA	MUX, DWDM LGX 8CH 32-39 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-8-4047-DTP-LA	MUX, DWDM LGX 8CH 40-47 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-8-4855-DTP-LA	MUX, DWDM LGX 8CH 48-55 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-8-5663-DTP-LA	MUX, DWDM LGX 8CH 56-63 LC/APC, COM, DTP, OTDR
<b>Dual 1X8 LGX Modules</b>	
FOMD-DWDM-LGX-D-8-1623-DTP-LA	MUX, Dual, DWDM LGX 8CH 16-23 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-D-8-2431-DTP-LA	MUX, Dual, DWDM LGX 8CH 24-31 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-D-8-3239-DTP-LA	MUX, Dual, DWDM LGX 8CH 32-39 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-D-8-4047-DTP-LA	MUX, Dual, DWDM LGX 8CH 40-47 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-D-8-4855-DTP-LA	MUX, Dual, DWDM LGX 8CH 48-55 LC/APC, COM, DTP, OTDR
FOMD-DWDM-LGX-D-8-5663-DTP-LA	MUX, Dual, DWDM LGX 8CH 56-63 LC/APC, COM, DTP, OTDR

## ORDERING INFORMATION:

Part Number	Description
<b>1X4 LGX Modules</b>	
FOMD-DWDM-LGX-4-1619-LA	MUX/DEMUX, DWDM LGX 4CH 16-19, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-2023-LA	MUX/DEMUX, DWDM LGX 4CH 20-23, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-2427-LA	MUX/DEMUX, DWDM LGX 4CH 24-27, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-2831-LA	MUX/DEMUX, DWDM LGX 4CH 28-31, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-3235-LA	MUX/DEMUX, DWDM LGX 4CH 32-35, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-3639-LA	MUX/DEMUX, DWDM LGX 4CH 36-39, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-4043-LA	MUX/DEMUX, DWDM LGX 4CH 40-43, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-4447-LA	MUX/DEMUX, DWDM LGX 4CH 44-47, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-4851-LA	MUX/DEMUX, DWDM LGX 4CH 48-51, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-5255-LA	MUX/DEMUX, DWDM LGX 4CH 52-55, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-5659-LA	MUX/DEMUX, DWDM LGX 4CH 56-59, LC/APC, COM, OTDR, EXP, UPG, DTP
FOMD-DWDM-LGX-4-6063-LA	MUX/DEMUX, DWDM LGX 4CH 60-63, LC/APC, COM, OTDR, EXP, UPG, DTP
<b>1X24 Field Cassettes</b>	
FOMD-DWDM-FIELD-24-1639-NC	MUX, DWDM 24CH 16-39 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
FOMD-DWDM-FIELD-24-4063-NC	MUX, DWDM 24CH 40-63 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
<b>1X12 Field Cassettes (Non-Connectorized)</b>	
FOMD-DWDM-FIELD-12-1627-NC	MUX, DWDM 12CH 16-27 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
FOMD-DWDM-FIELD-12-2839-NC	MUX, DWDM 12CH 28-39 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
FOMD-DWDM-FIELD-12-4051-NC	MUX, DWDM 12CH 40-51 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
FOMD-DWDM-FIELD-12-5263-NC	MUX, DWDM 12CH 52-63 Field Cassette COM, DTP, OTDR, UPG, EXP, NC
<b>1X12 Field Cassettes (Connectorized)</b>	
FOMD-DWDM-FIELD-12-1627-SA	MUX, DWDM 12CH 16-27 Field Cassette COM, DTP, SC/APC
FOMD-DWDM-FIELD-12-2839-SA	MUX, DWDM 12CH 28-39 Field Cassette COM, DTP, SC/APC
FOMD-DWDM-FIELD-12-4051-SA	MUX, DWDM 12CH 40-51 Field Cassette COM, DTP, SC/APC
FOMD-DWDM-FIELD-12-5263-SA	MUX, DWDM 12CH 52-63 Field Cassette COM, DTP, SC/APC

## ORDERING INFORMATION:

Part Number	Description
<b>1X8 Field Cassettes (Non-Connectorized)</b>	
FOMD-DWDM-FIELD-8-1623-DTP-NC	MUX, DWDM 8CH 16-23 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
FOMD-DWDM-FIELD-8-2431-DTP-NC	MUX, DWDM 8CH 24-31 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
FOMD-DWDM-FIELD-8-3239-DTP-NC	MUX, DWDM 8CH 32-39 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
FOMD-DWDM-FIELD-8-4047-DTP-NC	MUX, DWDM 8CH 40-47 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
FOMD-DWDM-FIELD-8-4855-DTP-NC	MUX, DWDM 8CH 48-55 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
FOMD-DWDM-FIELD-8-5663-DTP-NC	MUX, DWDM 8CH 56-63 Field Cassette, COM, EXP, UPG, OTDR, DTP, NC
<b>1X8 Field Cassettes (Connectorized)</b>	
FOMD-DWDM-FIELD-8-1623-DTP-SA	MUX, DWDM 8CH 16-23 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
FOMD-DWDM-FIELD-8-2431-DTP-SA	MUX, DWDM 8CH 24-31 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
FOMD-DWDM-FIELD-8-3239-DTP-SA	MUX, DWDM 8CH 32-39 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
FOMD-DWDM-FIELD-8-4047-DTP-SA	MUX, DWDM 8CH 40-47 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
FOMD-DWDM-FIELD-8-4855-DTP-SA	MUX, DWDM 8CH 48-55 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
FOMD-DWDM-FIELD-8-5663-DTP-SA	MUX, DWDM 8CH 56-63 Field Cassette, COM, EXP, UPG, OTDR, DTP, SC/APC
<b>1X4 Field Cassettes (Non-Connectorized)</b>	
FOMD-DWDM-FIELD-4-1619-NC	MUX, DWDM 4CH 16-19 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-2023-NC	MUX, DWDM 4CH 20-23 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-2427-NC	MUX, DWDM 4CH 24-27 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-2831-NC	MUX, DWDM 4CH 28-31 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-3235-NC	MUX, DWDM 4CH 32-35 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-3639-NC	MUX, DWDM 4CH 36-39 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-4043-NC	MUX, DWDM 4CH 40-43 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-4447-NC	MUX, DWDM 4CH 44-47 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-4851-NC	MUX, DWDM 4CH 48-51 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-5255-NC	MUX, DWDM 4CH 52-55 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-5659-NC	MUX, DWDM 4CH 56-59 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP
FOMD-DWDM-FIELD-4-6063-NC	MUX, DWDM 4CH 60-63 FIELD INSTALLABLE (TRAY MOUNTED) COM, EXP, UPG, DTP

## ORDERING INFORMATION:

Part Number	Description
<b>1X4 Field Cassettes (Connectorized SC/APC)</b>	
FOMD-DWDM-FIELD-4-1619-SA	MUX/DEMUX, DWDM 4CH 16-19 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-2023-SA	MUX/DEMUX, DWDM 4CH 20-23 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-2427-SA	MUX/DEMUX, DWDM 4CH 24-27 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-2831-SA	MUX/DEMUX, DWDM 4CH 28-31 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-3235-SA	MUX/DEMUX, DWDM 4CH 32-35 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-3639-SA	MUX/DEMUX, DWDM 4CH 36-39 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-4043-SA	MUX/DEMUX, DWDM 4CH 40-43 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-4447-SA	MUX/DEMUX, DWDM 4CH 44-47 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-4851-SA	MUX/DEMUX, DWDM 4CH 48-51 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-5255-SA	MUX/DEMUX, DWDM 4CH 52-55 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-5659-SA	MUX/DEMUX, DWDM 4CH 56-59 FIELD CASSETTE SC/APC, COM, EXP, DTP
FOMD-DWDM-FIELD-4-6063-SA	MUX/DEMUX, DWDM 4CH 60-63 FIELD CASSETTE SC/APC, COM, EXP, DTP
<b>1X4 Field Cassettes (Connectorized LC/UPC)</b>	
FOMD-DWDM-FIELD-4-1619-LU	MUX/DEMUX, DWDM 4CH 16-19 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-2023-LU	MUX/DEMUX, DWDM 4CH 20-23 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-2427-LU	MUX/DEMUX, DWDM 4CH 24-27 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-2831-LU	MUX/DEMUX, DWDM 4CH 28-31 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-3235-LU	MUX/DEMUX, DWDM 4CH 32-35 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-3639-LU	MUX/DEMUX, DWDM 4CH 36-39 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-4043-LU	MUX/DEMUX, DWDM 4CH 40-43 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-4447-LU	MUX/DEMUX, DWDM 4CH 44-47 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-4851-LU	MUX/DEMUX, DWDM 4CH 48-51 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-5255-LU	MUX/DEMUX, DWDM 4CH 52-55 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-5659-LU	MUX/DEMUX, DWDM 4CH 56-59 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input
FOMD-DWDM-FIELD-4-6063-LU	MUX/DEMUX, DWDM 4CH 60-63 Field Cassette, COM, EXP, TP, LC/UPC, SC/APC on Input