

# DIGICOMM DWDM OPTICAL MULTIPLEXER/DEMULTIPLEXER (LGX) 4, 8, 16, 20, AND 40-CHANNEL

## FEATURES

- LGX Chassis-Compatible
- ½ Depth Module allowing back to back mounting
- 100 GHz DWDM Channel Spacing (ITU-T G694.1)
- ITU Channels 20-62
- Supports the channel plans of major optical-transport manufacturers
- LC/APC and SC/APC connectors
- Low-Insertion Loss
- High-Isolation
- High-Directivity
- Extensive Inventory IN-STOCK at our Distribution Center in Englewood, CO



## OVERVIEW

Digicomm's family of DWDM Optical Passives are designed to maximize the capacity of existing fiber optic networks, which greatly reduces the need to construct new fiber optic plant. Available in 4, 8, 16, 20, and 40 channel options, Digicomm's DWDM Optical Passives provide flexibility, along with industry leading specifications. Digicomm's DWDM Optical Passives use the standard ITU channel plan (ITU-T G694.1), support 100Ghz channel spacing, and operate between ITU channels 20 and 62. All of Digicomm's Inside Plant (ISP) passives are standard LGX style, can be mounted inside a standard LGX passive chassis, and are available with either LC/APC or SC/APC connectors. Digicomm's DWDM Optical Passives also include an Expansion Port, providing the ability to scale the network in the future.

## SPECIFICATIONS

OPTICAL	4CH	8CH	16 CH	20 CH	40 CH
Ch XX to COM Insertion Loss $\leq$ dB	2	2.4	3	4.5	4.5
COM to TP Insertion Loss $\leq$ dB	21	21	21	21	21
EXP to COM Insertion Loss $\leq$ dB	1.5	1.5	1.5	1.5	1.5
UPG to COM Insertion Loss $\leq$ dB	2	3	3	4	5
Optical Return Loss $\geq$ dB	45	45	45	45	40
Polarization Dependent Loss, max $\leq$ dB	0.2	0.2	0.2	0.2	0.5
MUX/DEMUX Wavelength Deviation $\pm$ pm	0.05	0.05	0.05	0.05	0.05
FWHM Bandwidth @.dB $\geq$ pm	0.22	0.22	0.22	0.22	0.22
TPK/Uniformity $\leq$ dB	0.4	0.4	0.4	0.4	1.2
Ripple $\leq$ dB	0.4	0.4	0.5	0.5	0.5
Adjacent Channel Isolation $\geq$ dB	30	30	30	30	27
Non-Adjacent Channel Isolation, min $\geq$ dB	40	40	40	40	30

PHYSICAL	4CH	8CH	16 CH	20 CH	40 CH
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, 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, 2.3W

ENVIRONMENTAL	4CH	8CH	16 CH	20 CH	40 CH
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
Operating Temperature	-20° C to 70° C	-20° C to 70° C	-20° C to 70° C	-20° C to 70° C	-20° C to 70° C

## ORDERING INFORMATION FOR LC/APC

CH	PART NUMBER	DESCRIPTION
4	FOMD-DWDM-LGX-4-2023-LA	MUX/DEMUX, DWDM LGX 4CH 20-23 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2427-LA	MUX/DEMUX, DWDM LGX 4CH 24-27 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2831-LA	MUX/DEMUX, DWDM LGX 4CH 28-31 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-3235-LA	MUX/DEMUX, DWDM LGX 4CH 32-35 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-3639-LA	MUX/DEMUX, DWDM LGX 4CH 36-39 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4043-LA	MUX/DEMUX, DWDM LGX 4CH 40-43 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4447-LA	MUX/DEMUX, DWDM LGX 4CH 44-47 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4851-LA	MUX/DEMUX, DWDM LGX 4CH 48-51 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5255-LA	MUX/DEMUX, DWDM LGX 4CH 52-55 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5659-LA	MUX/DEMUX, DWDM LGX 4CH 56-59 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2157-LA	MUX, DWDM LGX 4CH 21,33,44,57 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2126-LA	MUX, DWDM LGX 4CH 21,22,24,26 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2839-LA	MUX, DWDM LGX 4CH 28,33,36,39 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4454-LA	MUX, DWDM LGX 4CH 44,48,52,54 LC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5762-LA	MUX, DWDM LGX 4CH 57,60,61,62 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2027-LA	MUX/DEMUX, DWDM LGX 8CH 20-27 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2835-LA	MUX/DEMUX, DWDM LGX 8CH 28-35 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-3643-LA	MUX/DEMUX, DWDM LGX 8CH 36-43 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4451-LA	MUX/DEMUX, DWDM LGX 8CH 44-51 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-5259-LA	MUX/DEMUX, DWDM LGX 8CH 52-59 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2162-LA	MUX/DEMUX, DWDM LGX 8CH 21,28,33,39,44,52,57,62 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2139-LA	MUX/DEMUX, DWDM LGX 8CH 21,22,24,26,28,33,36,39 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4462-LA	MUX/DEMUX, DWDM LGX 8CH 44,48,52,54,57,60,61,62 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2037-LA	MUX/DEMUX, DWDM LGX 8CH 20,23,25,27,29,32,34,37 LC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4359-LA	MUX/DEMUX, DWDM LGX 8CH 43,46,50,51,55,56,58,59 LC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2035-LA	MUX/DEMUX, DWDM LGX 16CH 20-35 LC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-3651-LA	MUX/DEMUX, DWDM LGX 16CH 36-51 LC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2162-LA	MUX/DEMUX, DWDM LGX 16CH 21,22,24,26,28,33,36,39,44,48,52,54,57,60,61,62, LC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2059A-LA	MUX/DEMUX, DWDM LGX 16CH 20,23,25,27,29,32,34,37,43,46,50,51,55,56,58,59 LC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2059B-LA	MUX/DEMUX, DWDM LGX 16CH 20,21,24,29,35,42,52,54,23,33,44,47,51,57,58,59 LC/APC COM, EXP, UPG, DTP
20	FOMD-DWDM-LGX-20-2039-LA	MUX/DEMUX, DWDM LGX 20CH 20-39 LC/APC COM, EXP, UPG, DTP
20	FOMD-DWDM-LGX-20-4059-LA	MUX/DEMUX, DWDM LGX 20CH 40-59 LC/APC COM, EXP, UPG, DTP
40	FOMD-DWDM-LGX-40-2059-LA	MUX/DEMUX, DWDM LGX 40CH 20-59 LC/APC COM, EXP, UPG, DTP
DUAL 8	FOMD-DWDM-LGX-D-8-2139-TP-LA	MUX/DWDM DWDM LGX, DUAL PACKAGED, 8CH 21,22,24,26,28,33,36,39 LC/APC COM, EXP, UPG, DTP

## ORDERING INFORMATION FOR SC/APC

CH	PART NUMBER	DESCRIPTION
4	FOMD-DWDM-LGX-4-2023-SA	MUX/DEMUX, DWDM LGX 4CH 20-23 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2427-SA	MUX/DEMUX, DWDM LGX 4CH 24-27 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2831-SA	MUX/DEMUX, DWDM LGX 4CH 28-31 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-3235-SA	MUX/DEMUX, DWDM LGX 4CH 32-35 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-3639-SA	MUX/DEMUX, DWDM LGX 4CH 36-39 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4043-SA	MUX/DEMUX, DWDM LGX 4CH 40-43 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4447-SA	MUX/DEMUX, DWDM LGX 4CH 44-47 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4851-SA	MUX/DEMUX, DWDM LGX 4CH 48-51 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5255-SA	MUX/DEMUX, DWDM LGX 4CH 52-55 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5659-SA	MUX/DEMUX, DWDM LGX 4CH 56-59 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2157-SA	MUX/DEMUX, DWDM LGX 4CH 21,33,44,57 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2126-SA	MUX/DEMUX, DWDM LGX 4CH 21,22,24,26 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-2839-SA	MUX/DEMUX, DWDM LGX 4CH 28,33,36,39 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-4454-SA	MUX/DEMUX, DWDM LGX 4CH 44,48,52,54 SC/APC COM, EXP, UPG, DTP
4	FOMD-DWDM-LGX-4-5762-SA	MUX/DEMUX, DWDM LGX 4CH 57,60,61,62 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2027-SA	MUX/DEMUX, DWDM LGX 8CH 20-27 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2835-SA	MUX/DEMUX, DWDM LGX 8CH 28-35 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-3643-SA	MUX/DEMUX, DWDM LGX 8CH 36-43 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4451-SA	MUX/DEMUX, DWDM LGX 8CH 44-51 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-5259-SA	MUX/DEMUX, DWDM LGX 8CH 52-59 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2162-SA	MUX/DEMUX, DWDM LGX 8CH 21,28,33,39,44,52,57,62 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2139-SA	MUX/DEMUX, DWDM LGX 8CH 21,22,24,26,28,33,36,39 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4462-SA	MUX/DEMUX, DWDM LGX 8CH 44,48,52,54,57,60,61,62 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-2037-SA	MUX/DEMUX, DWDM LGX 8CH 20,23,25,27,29,32,34,37 SC/APC COM, EXP, UPG, DTP
8	FOMD-DWDM-LGX-8-4359-SA	MUX/DEMUX, DWDM LGX 8CH 43,46,50,51,55,56,58,59 SC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2035-SA	MUX/DEMUX/DEMUX, DWDM LGX 16CH 20-35 SC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-3651-SA	MUX/DEMUX/DEMUX, DWDM LGX 16CH 36-51 SC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2162-SA	MUX/DEMUX, DWDM LGX 16CH 21,22,24,26,28,33,36,39,44,48,52,54,57,60,61,62, SC/APC COM, EXP, UPG, DTP
16	FOMD-DWDM-LGX-16-2059-SA	MUX/DEMUX, DWDM LGX 16CH 20,21,24,29,35,42,52,54,23,33,44,47,51,57,58,59 SC/APC COM, EXP, UPG, DTP
20	FOMD-DWDM-LGX-20-2039-SA	MUX/DEMUX, DWDM LGX 20CH 20-39 SC/APC COM, EXP, UPG, DTP
20	FOMD-DWDM-LGX-20-4059-SA	MUX/DEMUX, DWDM LGX 20CH 40-59 SC/APC COM, EXP, UPG, DTP