

# Dense Wavelength Division Multiplexer & DeMultiplexer (DWDM Mux DeMux)

## Features

- ✓ Low Insertion Loss (IL)
- ✓ High isolation
- ✓ Low Polarization Dependent Loss (PDL)
- ✓ Available in 2 to 32 channels with compact design
- ✓ Good channel-to-channel uniformity
- ✓ Wide operating wavelength range
- ✓ High reliability and high stability
- ✓ Telcordia GR-1209-CORE-2001 compliant
- ✓ Telcordia GR-1221-CORE-1999 compliant
- ✓ ITU-T G.694.1 compliant
- ✓ RoHS-6 compliant (lead free)



## Applications

- ✓ DWDM Networks

## Description

The Gigalight Dense Wavelength Division Multiplexer & DeMultiplexer (DWDM Mux DeMux) is designed for ITU channel spacing applications. It is based on the Thin Film Filter (TFF) technology and operates at 100GHz or 200GHz channel spacing ITU Grid DWDM wavelengths from 1526nm to 1565nm. Gigalight provides a series of customized DWDM Mux DeMux within plastic ABS box, metal LGX box, or 19-inch 1U rack mount to meet different requirements on Port Configuration (2 to 32 channels, 1310nm/upgrade/monitoring ports available), Operating Wavelength, Package Type, Fiber Type, Fiber Length, Input Connector, and Output Connector.

## Specifications

Parameters	Channel Options			
Port Configuration	1x2	1x4	1x8	1x16
Center Wavelength (nm)	ITU Grid			
Operating Wavelength (nm)	1520 to 1620			
Channel Space (nm)	0.8			
Passband @0.5dB (nm)	0.22			
Channels IL (dB)	< 1.5	< 1.8	< 2.6	< 4.2
Link IL (Mux+Demux) (dB)	< 2.7	< 3.0	< 3.8	< 5.4
Adjacent Channels Isolation (dB)	> 30			
Non-Adjacent Isolation (dB)	> 45			
Directivity (dB)	> 50			
Return Loss (dB)	> 45			
Ripple (dB)	< 0.5			
PDL (dB)	< 0.2			
PMD (ps)	< 0.1			

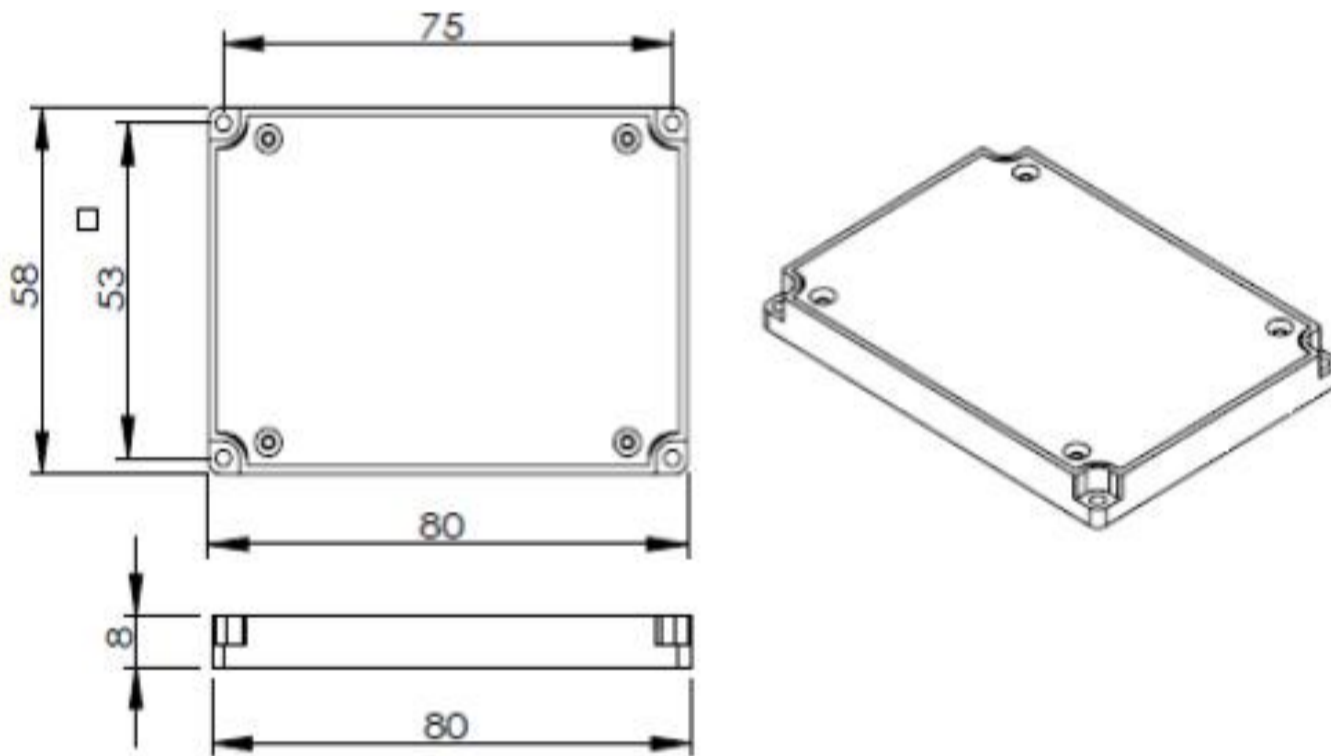
Maximum Optical Power (mw)	300
Operating Temperature (°C)	-5 to +75
Storage Temperature (°C)	-40 to +85
Package (mm) (L×W×H)	ABS Box: 80×58×8, 100×80×10, 120×80×18, 140×115×18 LGX Box: standard, 2 in 1, 4 in 1 19-inch 1U Rack Mount: standard

**Notes:**

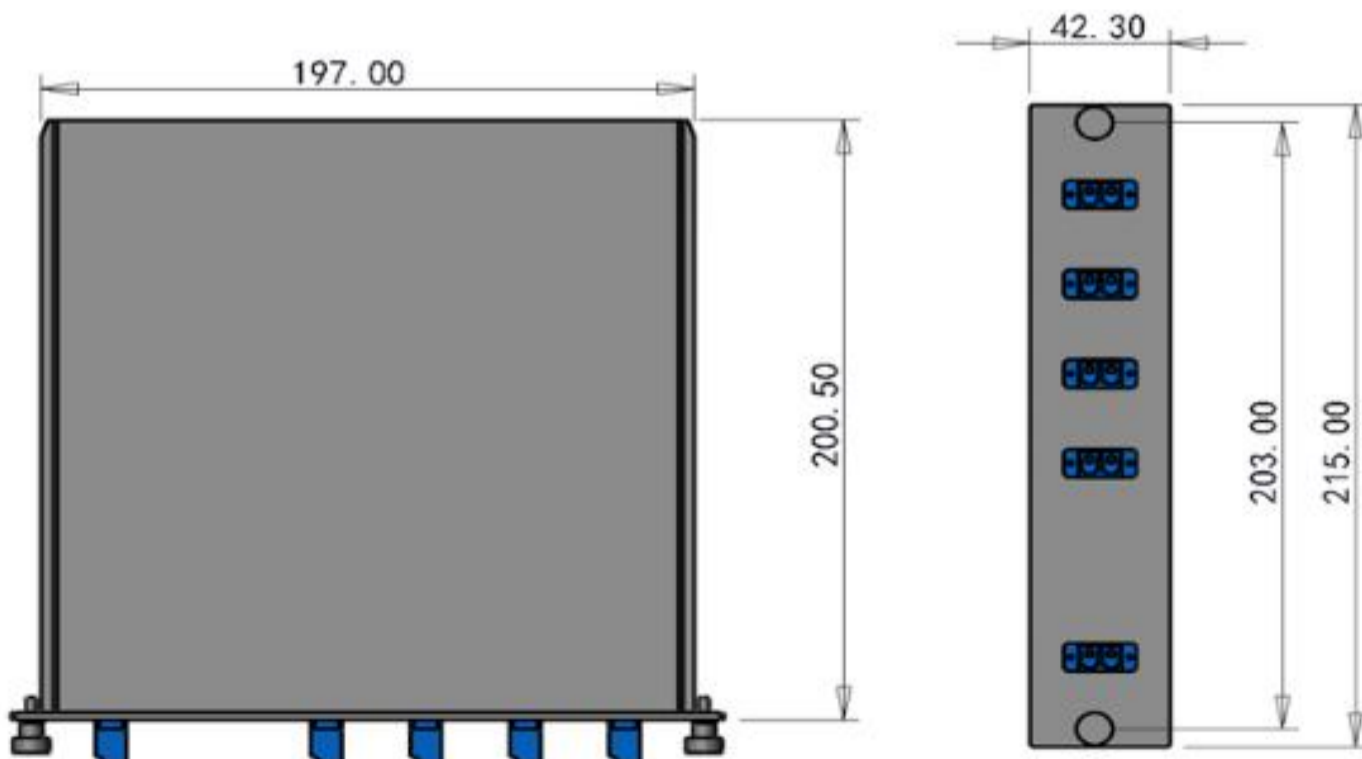
1. All specifications are based on the devices with connectors, and guaranteed over wavelength and temperature.
2. Fiber type is G657A1.
3. An additional 0.3dB loss ought to be added per adapter for LGX box and rack mount.

**Mechanical Dimensions**

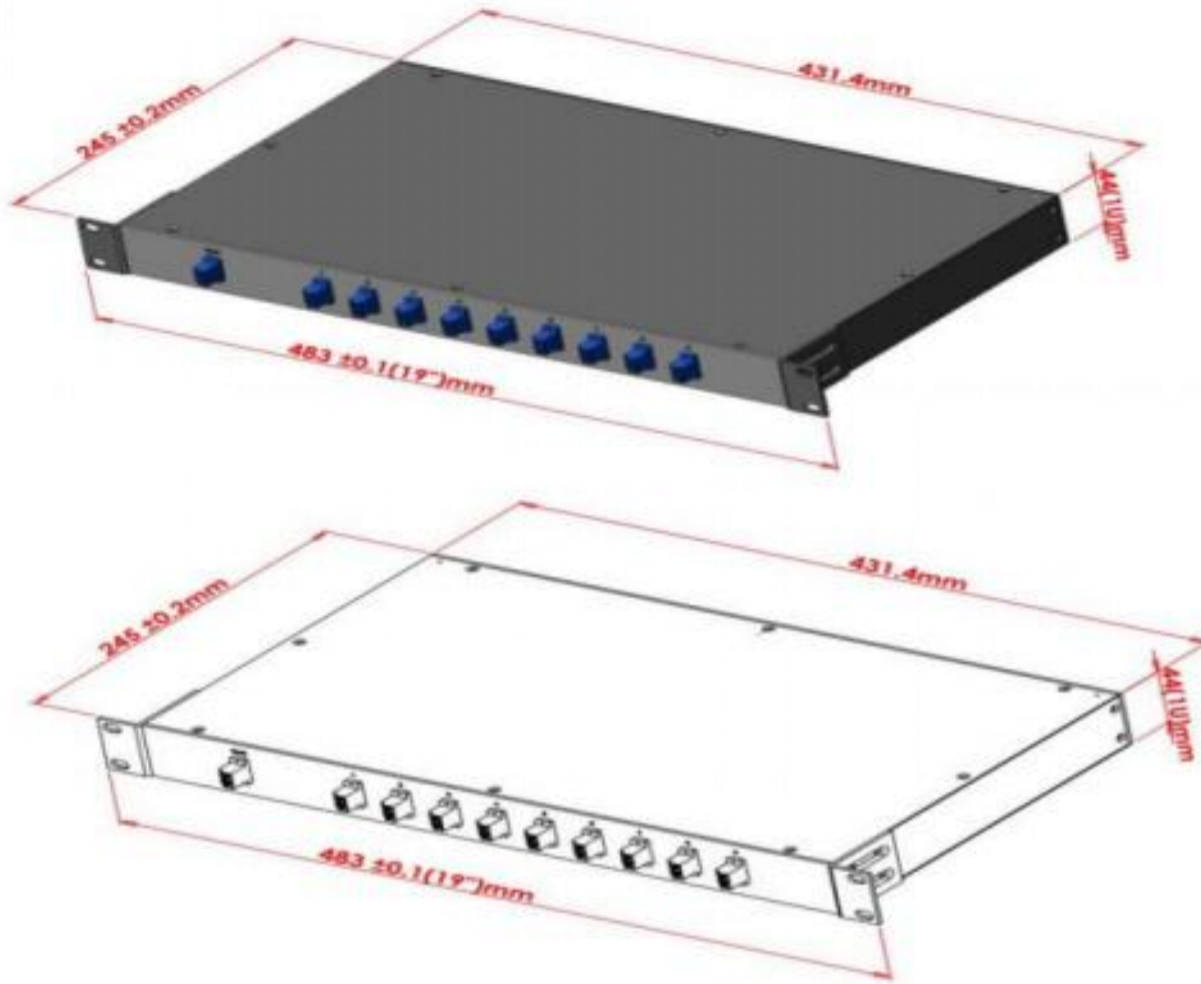
ABS Box (PX: 80×58×8):



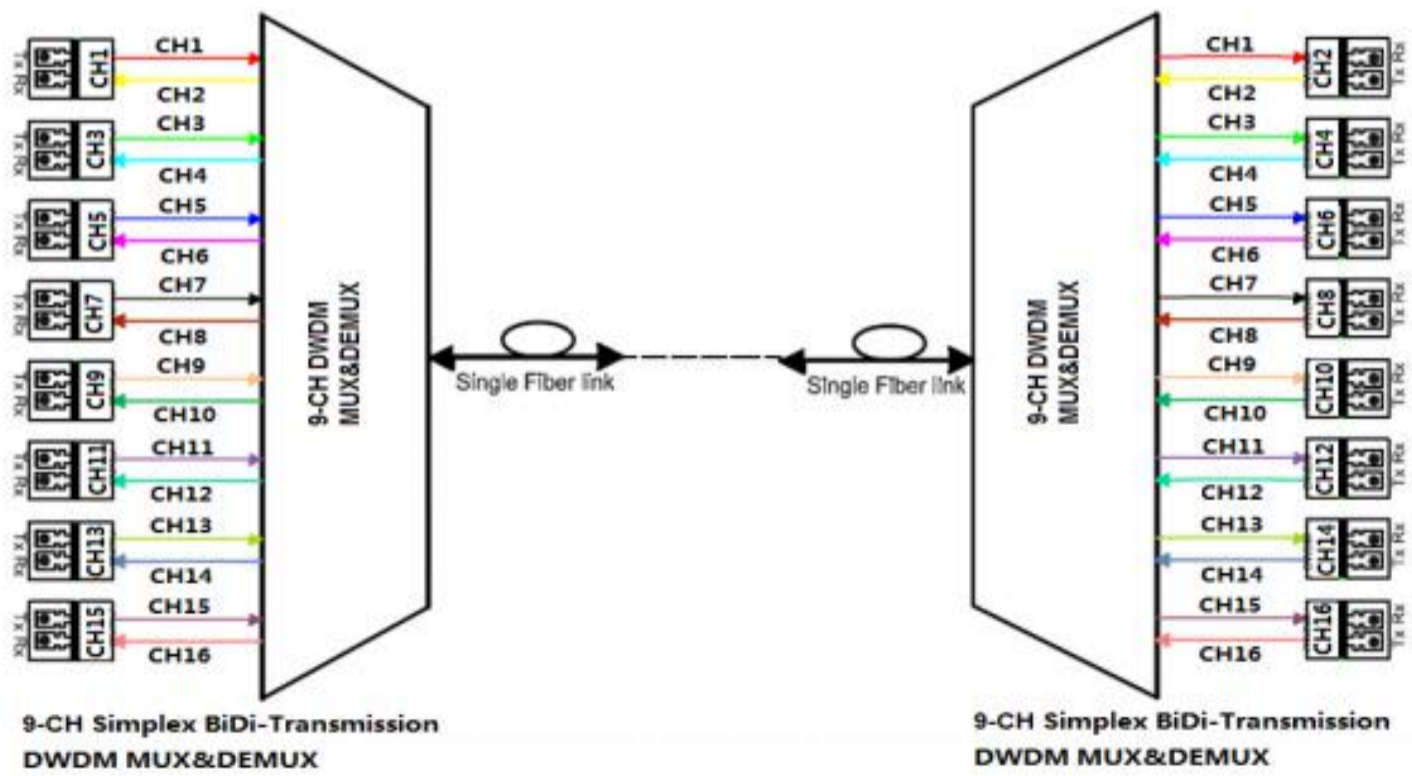
LGX Box (2 in 1):



19-inch 1U Rack Mount:



Structure Diagram



## Ordering Information

GWM-xx	x	x	xx	xx	x	xx-	x	x
	Channel Space	MUX/DEMUX Type	Initial Wavelength	Package Type	Fiber Type	Fiber Length	Input Connector	Output Connector
<b>Channel Options</b> <b>xx:</b> 02=2CH 04=4CH 08=8CH 16=16CH ... 32=32CH	X=100GHz	M=MUX	15=15CH	PX=80×58×8 ABS Box	B=250um bare fiber	10=1.0m	0=None	0=None
	Y=200GHz	D=DEMUX	16=16CH	PS=100×80×10 ABS Box	09=0.9mm loose tube	15=1.5m	1=FC/UPC	1=FC/UPC
		1=MUX with 1310nm port	17=17CH	PM=120×80×18 ABS Box	20=2.0mm loose tube	20=2.0m	2=FC/APC	2=FC/APC
		2=DEMUX with 1310nm port	...	PL=140×115×18 ABS Box		25=2.5m	3=SC/UPC	3=SC/UPC
		3=MUX with UPG port	59=59CH	LX=Standard LGX Box		...	4=SC/APC	4=SC/APC
		4=DEMUX with UPG port	60=60CH	21=2 in 1 LGX Box			5=LC/UPC	5=LC/UPC
		5=MUX with 1310nm & UPG ports	61=61CH	41=4 in 1 LGX Box			6=LC/APC	6=LC/APC
		6=DEMUX with 1310nm & UPG ports	62=62CH	19=19-in 1U Rack Mount				
		7=MUX with 1310nm & MON ports	63=63CH					
		8=DEMUX with 1310nm & MON ports	64=64CH					

**Notes:**

If there is a demand for orders that are different from those described above, please contact Gigalight sales.

**E-mail:** [sales@gigalight.com](mailto:sales@gigalight.com)

**Official Site:** [www.gigalight.com](http://www.gigalight.com)