# Passive Optical Components Data Sheet



# 4CH Mini CCWDM MUX/DEMUX

## Description

The Gigalight 4CH Mini CCWDM (Compact CWDM) MUX/DEMUX is a 4-channel CWDM device with super compact package designed for cost-effective multi-wavelength CWDM network applications. It is based on the Thin Film Filter (TFF) technology and free-space technology platform. It operates at 4 channels 20nm channel spacing ITU Grid CWDM wavelengths from 1270nm to 1610nm. It is ideal for functioning with inexpensive, uncooled lasers. With up to 4 low dispersion channels, it is a high capacity, low cost product for 40G/100G, CATV, and metro/access network applications. Gigalight provides a series of customized 4CH Mini CCWDM MUX/DEMUX devices packaged in metal box to meet different requirements on port configuration (1310nm and upgrade ports available), operating wavelength, fiber type, fiber length, input connector, and output connector.

### **Features**

- ✓ Low Insertion Loss (IL)
- ✓ High isolation
- ✓ Low Polarization Dependent Loss (PDL)
- ✓ 4 channels Mini CCWDM with super 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.694.2 compliant
- ✓ RoHS-6 compliant (lead free



# **Applications**

- Broadband Networks
- ✓ Metro Networks
- ✓ CATV Systems

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# **Specifications**

Parameters	4CH Mini CCWDM MUX/DEMUX <sup>[1]</sup>
Center Wavelength (nm)	1270~1610
Operating Wavelength (nm)	1260~1620
Channel Space (nm)	20
Channel Passband @0.5dB (nm)	ITU±6.5
Channel Insertion Loss (dB) <sup>[2]</sup>	<1.5
Adjacent Channels Isolation (dB)	>30
Non-Adjacent Isolation (dB)	>40
Directivity (dB)	>50
Return Loss (dB)	>45
Ripple (dB)	<0.3
Polarization Dependent Loss (dB)	<0.2
Polarization Mode Dispersion (ps)	<0.1
Maximum Optical Power (mw)	300
Operating Temperature (°C)	-5 ~ 75
Storage Temperature (°C)	-40 ~ 85
Package (mm) (L×W×H)	A1 Metal Box: 32×26×8

#### Note:

[1] All specifications are based on the devices with connectors, and guaranteed over wavelength and temperature. Fiber type is G657A1.

[2] An additional 0.3dB loss ought to be added per adapter.

### **Mechanical Dimensions**

A1 Metal Box (32×26×8):



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### **Structure Diagram**



#### **Ordering Information**

	x	XX	A1	X	XX-	x	X
GCC-M4Q	MUX/DEMUX	Initial	Package	Fiber	Fiber	Input	Output
	Type <sup>[1]</sup>	Wavelength	Туре	Туре	Length	Connector	Connector
Mini CCWDM	M=MUX	27=1270	A1=32×26×8	B=250um	10=1.0m	0=None	0=None
			Metal Box	bare fiber			
	D=DEMUX	29=1290		09=0.9mm	15=1.5m	1=FC/UPC	1=FC/UPC
				loose tube			
	1=MUX	31=1310		20=2.0mm	20=2.0m	2=FC/APC	2=FC/APC
	with 1310nm port			loose tube			
	2=DEMUX				25=2.5m	3=SC/UPC	3=SC/UPC
(4CH)	with 1310nm port						
	3=MUX	53=1530				4=SC/APC	4=SC/APC
	with UPG port						
	4=DEMUX	55=1550				5=LC/UPC	5=LC/UPC
	with UPG port						
						6=LC/APC	6=LC/APC

#### Note :

[1] The 1310 in the "MUX/DEMUX Type" is 1310±50nm.

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

E-mail: <u>sales@gigalight.com</u> Official Site: <u>www.gigalight.com</u>