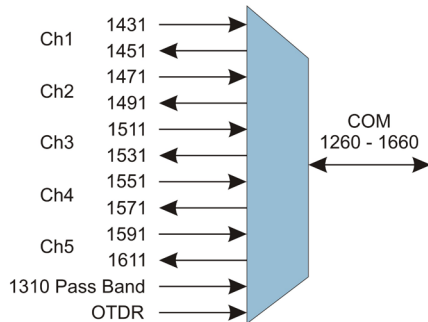


OmniLight® 5-Channel Single-Fiber CWDM Multiplexer/Demultiplexer with 1310 Pass Band and optional OTDR Ports

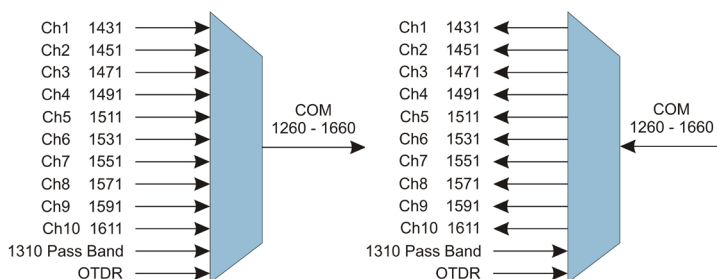
The OmniLight® half-size LGX 5-Channel Single-Fiber CWDM Multiplexer/Demultiplexer (MUX/DEMUX) modules support ITU-T G.694.2 wavelengths between 1431nm to 1611nm in 20nm increments with a 1310nm Pass Band Port. An optional Optical Time Domain Reflectometer (OTDR) port is available which provides the ability to test the integrity of the fiber optic link without disturbing the wavelength channels.

These CWDM modules are protocol and rate transparent allowing different services up to 10Gbps to be transported across the same common fiber link.



Functional diagram of the 5-Channel Single-Fiber CWDM MUX/DEMUX with 1310nm Pass Band and optional OTDR

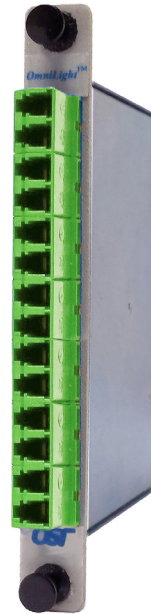
The 5-Channel Single-Fiber MUX/DEMUX can be configured to operate as a 10-Channel Single-Fiber MUX or a 10-Channel Single-Fiber DEMUX.



Functional diagram of the 10-Channel Single-Fiber CWDM MUX (on the left) or DEMUX (on the right) with 1310nm Pass Band and optional OTDR

OmniLight family of LGX form factor CWDM and DWDM passive optical modules and chassis support the highest port density available in the LGX form factor.

OmniLight optical modules are passive devices that require no external power. They can be installed in any OmniLight chassis.



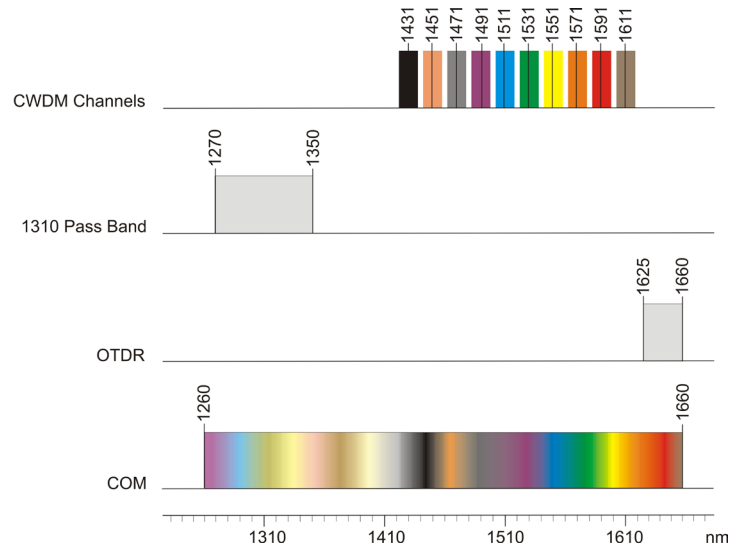
KEY FEATURES

- Supports five bidirectional data channels for access or transport networks
- Supports ten unidirectional data channels for cable operator data/video overlay networks
- 1310nm Pass Band Port to transport legacy services
- Optional OTDR port
- Protocol and rate transparent for applications up to 10Gbps
- Industry standard LC/APC connectors
- Half-size LGX Form Factor
- Commercial (0 to 50°C) and extended (-40 to 85°C) temperature ranges
- One (1) year Warranty and Free 24/7/365 Technical Support

SPECIFICATIONS

Optical Characteristics		
Parameter	Units	Values
Common Port Operating Wavelength	nm	1260 - 1660
CWDM Center Channel	nm	1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611
CWDM Channel Spacing	nm	20
1310 Pass Band	nm	1270 - 1350
CWDM Pass Band Width	nm	± 6.5
OTDR	nm	1625 - 1660
Ripple over Pass Band	dB	≤ 0.5
1431 CWDM Insertion Loss*	dB	Typical 4.4, Max 5.0
1451 CWDM Insertion Loss*	dB	Typical 4.0, Max 4.7
1471 CWDM Insertion Loss*	dB	Typical 3.7, Max 4.4
1491 CWDM Insertion Loss*	dB	Typical 3.4, Max 4.1
1511 CWDM Insertion Loss*	dB	Typical 3.1, Max 3.8
1531 CWDM Insertion Loss*	dB	Typical 2.8, Max 3.5
1551 CWDM Insertion Loss*	dB	Typical 2.5, Max 3.2
1571 CWDM Insertion Loss*	dB	Typical 2.2, Max 2.9
1591 CWDM Insertion Loss*	dB	Typical 1.9, Max 2.6
1611 CWDM Insertion Loss*	dB	Typical 1.6, Max 2.3
1310 Pass Band Insertion Loss*	dB	Typical 0.8, Max 1.0
OTDR Insertion Loss*	dB	Typical 1.4, Max 2.5
Adjacent Channel Isolation	dB	≥ 30
Insertion Loss Thermal Stability	dB/°C	≤ 0.006
Wavelength Thermal Stability	nm/°C	≤ 0.002
Polarization Dependent Loss (PDL)	dB	≤ 0.15
Polarization Mode Dispersion (PMD)	ps	≤ 0.15
Return Loss	dB	≥ 45
Directivity	dB	≥ 55
*Note – Above specs includes connector loss		

Description	OmniLight CWDM/X 5-Channel Single-Fiber CWDM MUX/DEMUX	
Regulatory Compliances	Telecordia GR-1209, GR-1221 UL, CE, RoHS2 (6/6), WEEE, REACH	
Port Types	Fiber:	5 Channel: LC (APC)
Cable Types	Fiber:	Single-mode: 9/125µm Channel Ports: Dual Fiber or Single-fiber Common Port: Single-fiber
Dimensions	W: 0.562" x D: 3.0" x H: 5.10" L: 14.3 mm x B: 76.2 mm x H: 129.5 mm	
Weight	7 oz.; 200 grams	
Temperature	Commercial: Extended: Storage:	0 to 50°C -40 to 85°C -40 to 85°C
Humidity	5 to 90% operational (non-condensing) 0 to 95% storage	
Altitude	-100m to 4,000m	
MTBF (hrs)	> 1,000,000	
Warranty	One (1) year warranty with 24/7/365 free Technical Support	



5-Channel CWDM Multiplexer/Demultiplexer Wavelengths

ORDERING INFORMATION

Model Number	Description
5900-03	5-Channel Single-Fiber CWDM MUX/DEMUX with 1310 Pass Band
5900-04	5-Channel Single-Fiber CWDM MUX/DEMUX with 1310 Pass Band and OTDR

Chassis and Accessories	
Model Number	Description
5800-1	OmniLight 14-Module 3-RU Passive Optical Chassis
5800-5	OmniLight 3-Module 1-RU Passive Optical Shelf
5800-20	23" Rack Mounting Bracket

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