Preliminary

Optical Channel Monitor

Features / Benefits

- 50GHz or 100GHz ITU grids, C-band, L-band or C+L bands
- High adjacent channel isolation
- Excellent temperature stability
- Single port or multiple (2 to 4) port monitoring
- High accuracy in power and wavelength measurements
- Large dynamic range in power monitoring

Applications

- Real-time optical performance or channel monitoring of DWDM networks
- Optical add/drop monitoring and diagnostics
- Optical power or OSNR monitoring for gain equalization in DWDM networks
- Real-time system error warning and alarming
- EDFA gain balancing

RoHS Compliant

Lightwaves2020's innovative Optical Channel Monitor (OCM) is a very compact integrated module with multiple functions of optical channel monitor, optical performance monitor, optical wavelength meter, and DWDM spectrum analyzer. The OCM provides real-time and non-intrusive measurement and monitoring of optical channel power, wavelength and optical signal-to-noise ratio (OSNR).

Based on Lightwaves2020's proprietary optical thin film technology and innovative micro optics, the OCM can scan the wavelength range of C-, L- or C+L bands sequentially and measure or monitor the optical channel power and wavelength at ITU grids of 100 GHz or 50 GHz. Coupled with high performance InGaAs detector, high speed electronics and advanced algorithm in signal processing, the Optical Channel Monitor can measure the optical channel power and wavelength very accurately with large dynamic range. More importantly, the OCM is very reliable and repeatable.

Compared to the existing products by other suppliers, Lightwaves2020' OCM has the capability to measure/monitor multiple lines (one-, two, three- or four-lines) simultaneously. Lightwaves2020's high performance Optical Channel Monitor is your best solution in DWDM network monitoring and other applications.

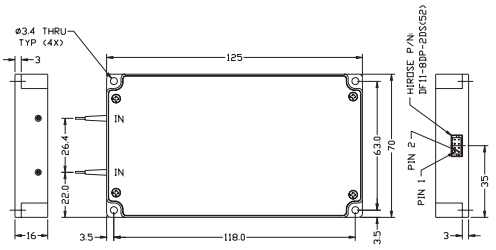
Lightwaves2020

Optical Channel Monitor

Specifications

Parameters	Unit	Specification
Absolute Power Accuracy	dB	+/- 0.75
Relative Power Accuracy	dB	+/- 0.5
Absolute Wavelength Accuracy	pm	+/- 75
Power Repeatability	dB	+/- 0.1
Polarization Dependent Loss	dB	0.3
Optical Return Loss	dB	45
Response Time (per channel)	ms	100 (without OSNR), 500 (OSNR)
Interface	-	RS232
Power Consumption	W	< 5
OSNR	dB	20
OSNR Accuracy	dB	+/- 1.5
Input Wavelength Tolerance	nm	ITU +/- 0.1
Input Power Range	dBm	-40 to -10
Max. Adjacent Channel Power Imbalance	dB	15
Max. Non-Adjacent Channel Power Imbalance	dB	20
Mechanical Dimension	mm	125 x 70 x 16

Dimensions



Units: mm

Ordering Information

L	O	C	M		5			0	0	0	0			

Wavelength
C = C-band
L = L-band

Port Number
1 = one port
2 = two port

OSNR
R = with OSNR
N = w/o OSNR

Fiber Type
0= SMF-28e

Fiber Length
1= 1.0m
5= 1.5m

Pigtail Type
0= 250µm bare fiber
1= 900µm loose tube

Connector
0= None
1= FC/UPC
2= FC/APC
3= SC/UPC
4= SC/APC
5= LC/UPC
6= MU/UPC

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