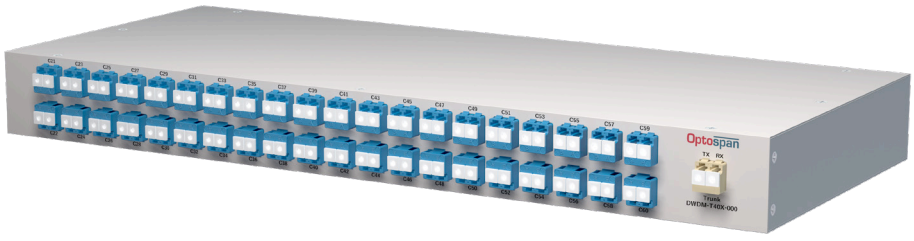
Optospan

ULTRA LOW-LOSS 40 CHANNEL DWDM MUX/ DEMUX MODULE

Innovative design increases distance, performance and reliability



Ultra* Low Loss 3.5dB

Max DWDM Distance

* Better Performance than Cisco & Finisar Comparable models

The OptoSpan 40-channel MUX/DEMUX module offers an ultra low-loss (3.5dB)and high channel isolation WDM solution for data centers and metro access applications.

This simple plug-and-play system integrates an innovative 100GHZ Athermal Arrayed Waveguide Grating (AWG) based multiplexer and a de-multiplexer configured for ITU Grid channels 21 through 60.

FEATURES

- Ultra Low insertion loss for enhanced distance and performance
- High Channel Isolation for increased reliability
- Combined DWDM Multiplexer and Demultiplexer
- All data rates and protocols from T1 to 100 Gbps
- No electrical power requirements
- 1RU 19" rack mount chassis package
- GR-1221-CORE UNC & Telecordia TR-NWT-000468 reliability

RoHS 2002/95/EC

OPTICAL SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS (UNLESS OTHERWISE SPECIFIED)

Parameters	Conditions	Specifications		Units
		Min.	Max.	
Operating Temperature	Operating	-5	65	ºC
Operating Humidity	Operating	5	95	%RH
Storage Temperature	Non_Operating	-40	+85	ºC
Storage Humidity	Non_Operating	5	95	%RH

OPTICAL SPECIFICATION	***AWG GAUSSIAN AAWG***				
Parameters	**Condition**	**Specs**			**Units**
		Min	**Type**	**Max**	
Number of Channels			2-1×40		
Number Channel Spacing	100GHz		100		GHz
Cha. Center Wavelength	ITU frequency.		C –band		nm
Clear Channel Passband			±0.1		nm

OPTICAL SPECIFICATIONS

Parameters	Condition	Specs			Units
		Min	Type	Max	
Wavelength Stability	Maximum range of the wavelength error of all channels and temperatures in average polarization.		±0.05		nm
-1 dB -1 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.24			nm
-3 dB -3 dB Channel Bandwidth	Clear channel bandwidth defined by passband shape. For each channel	0.43			nm
Optical Insertion Loss at ITU grid	Defined as the minimum transmission at ITU wavelength for all channels. For each channel, at all temperatures and polarizations.		3.5	4.5	dB
Adjacent Channel Isolation	Insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of the adjacent channels.	30			dB
Non-Adjacent, Channel Isolation	Insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of the nonadjacent channels.	40			dB
Total Channel Isolation	Total cumulative insertion loss difference from the mean transmission at the ITU grid wavelength to the highest power, all polarizations, within the ITU band of all other channels, including adjacent channels.	33			dB
Insertion Loss Uniformity	Maximum range of the insertion loss variation within ITU across all channels, polarizations and temperatures.		0.8	1.0	dB
Insertion Loss Ripple	Any maxima and any minima of optical loss across ITU band, excluding boundary points, for each channel at each port		0.4	0.5	dB
Directivity	Ratio of reflected power out of any channel (other than channel n)to power in from the input channel n	50			dB
Optical Return loss	Input & output ports	40			dB
PDLPolarization Dependent Loss in Clear Channel Band	Worst-case value measured in ITU band		0.3	0.5	dB
Polarization Mode Dispersion				0.5	ps
Maximum Optical Power				23	dBm
MUXDEMUX input output Monitoring range		-35		+23	dBm

MECHANICAL SCHEMATIC AND DIMENSIONS

Dimensions	482.6*200*43.5 mm					
Fiber Type	G657A 1					
Fiber Format	4x124x12-ribbon fiber					
Connector Options	Common Channels	LC/UPC LC/UPC				
Fiber Identification in Ribbon	1 Blue 7 Red	2 Orange 8 Black	3 Green 9 Yellow	4 Brown 10 Purple	5 Grey 11 Pink	6 White 12 Aqua

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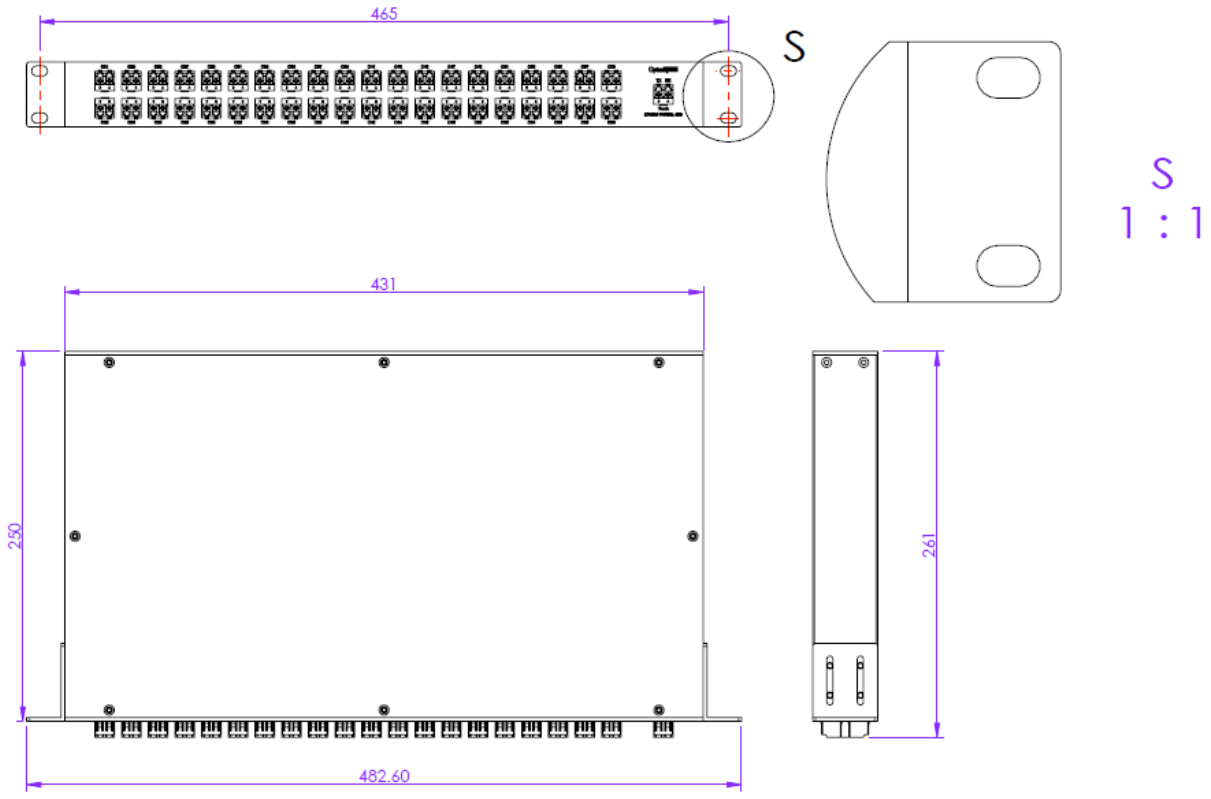

WAVELENGTH PLAN

No.#	ITU channel number	Wavelength (nm)	No.#	ITU channel number	Wavelength (nm)
1	21	1560.61	21	41	1544.53
2	22	1559.79	22	42	1543.73
3	23	1558.98	23	43	1542.94
4	24	1558.17	24	44	1542.14
5	25	1557.36	25	45	1541.35
6	26	1556.55	26	46	1540.56
7	27	1555.75	27	47	1539.77
8	28	1554.94	28	48	1538.98
9	29	1554.13	29	49	1538.19
10	30	1553.33	30	50	1537.4
11	31	1552.52	31	51	1536.61
12	32	1551.72	32	52	1535.82
13	33	1550.92	33	53	1535.04
14	34	1550.12	34	54	1534.25
15	35	1549.32	35	55	1533.47
16	36	1548.51	36	56	1532.68
17	37	1547.72	37	57	1531.9
18	38	1546.92	38	58	1531.12
19	39	1546.12	39	59	1530.33
20	40	1545.32	40	60	1529.55