PM Coase Wavelength Division Multiplexer CWDM 1x2

DATASHEET

Return to the Webpage

The PM Coarse Wavelength Division Multiplexer (CWDM) employs thin-film coating technology and a proprietary non-flux metal-bonded micro-optics packaging design to enable optical add/drop functionality across ITU channel wavelengths from 1270 to 1610 nm. It delivers low insertion loss and wide passbands at each ITU center wavelength, along with high channel isolation and excellent polarization extinction ratio. The device features low temperature sensitivity and an epoxy-free optical path, ensuring high reliability and performance for polarization-maintaining systems.

Features

- 100/200GHz ITU Channel Spacing
- Low Insertion Loss
- Wide Pass Band
- High Channel Isolation
- High Extinction Ratio
- High Stability and Reliability
- Epoxy Free Optical Path

Applications

- Channel Add / Drop
- WDM Network
- Wavelength Routing
- Fiber Optical Amplifier
- CATV Fiberoptic System

Specifications

Parameter	Specifications (Mux/Demux)		Unit
Operating Wavelength	1530.33 - 1560.61 (21~ 59 ITU grid)		nm
Minimum Channel Spacing	100	200	GHz
Center Wavelength Accuracy	± 0.05	± 0.1	nm
Channel Passband (@-0.5dB bandwidth)	≥ 0.22	≥ 0.5	nm
Insertion Loss (Add / Drop Ch.)	≤ 1.0	≤ 0.9	dB
Insertion Loss (Express Ch.)	≤ 0.60	≤ 0.50	dB
Channel Isolation (Demux only)	≥ 25 (Adjacent) ≥ 35 (Non-adjacent)	≥ 30 (Adjacent) ≥ 40 (Non-adjacent)	dB
Express Channel Isolation	≥ 12	≥ 12	dB
Add / Drop Channel Ripple	≤ 0.3		dB
Insertion Loss Temperature Sensitivity	≤ 0.003		dB/°C
Wavelength Temperature Shifting	≤ 0.002		nm/°C
Polarization Extinction Ratio	≥ 18		dB
Fiber Type	Corning PM1550		
Polarization Mode Dispersion	≤ 0.1		ps
Directivity	≥ 50		dB
Return Loss	≥ 45		dB
Optical Power	≤ 300		mW
Operating Temperature	0 to +70 (Extended temperatures upon request)		°C
Storage Temperature	- 40 to +85		°C
Package Dimension	A= Standard, Ø5.5xL34 (250um bare fiber) Ø5.5xL38 (900um jacket fiber) M=Compact, Ø4.8XL30 (250um bare fiber) N=Mini, Ø4.2xL28 (250um bare fiber) C=98x14x8.5 (2&3 mm fiber jacket) S=89x51x8.0 (2&3 mm fiber jacket)		mm

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link]:

Rev 07/10/25

© Photonwares Corporation

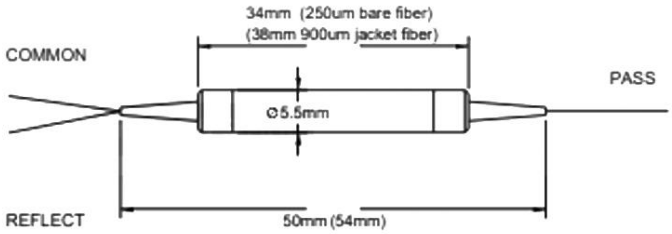
P +1 781-935-1200 E sales@photonwares.com W www.agiltron.com

PM Coase Wavelength Division Multiplexer CWDM 1x2

DATASHEET

Mechanical Dimensions (mm)

A package:

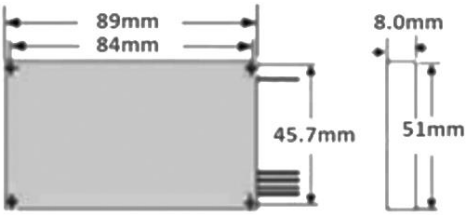


M package:

N package:

C package:

S package:

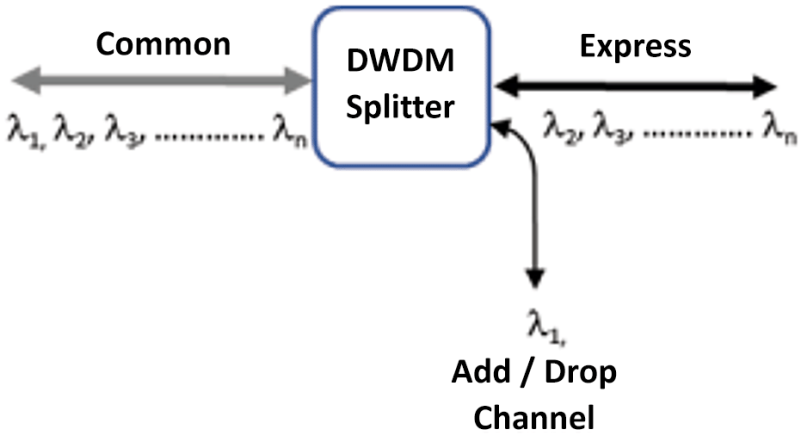


*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

PM Coase Wavelength Division Multiplexer CWDM 1x2

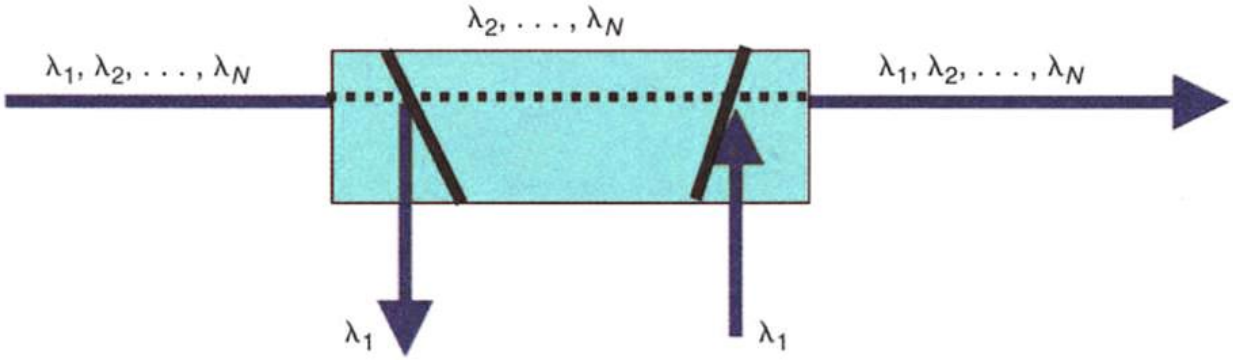
DATASHEET

Channel Configurations



Optical Function Path Illustration

Wavelength multiplexing and Demultiplexing can be illustrated below in a single-channel optical add-drop case.



PM Coase Wavelength Division Multiplexer CWDM 1x2

DATASHEET

Ordering Information

	☐☐	☐	☐	☐	☐	☐	☐	☐
Prefix	**ITU Channel ***	**Package**	**Fiber Type**	**Fiber Cover**	**Fiber Length**	**Common Connector**	**Pass/Reflect Connector**	**Working Axis**
CWDP-	1270 nm = 27 1290 nm =29 1310 nm =31 1330 nm =33 …….	A Package = A M Package = M N Package = N C Package = C S Package = S	PM1550 = 5 PM1310 =3 SM28 =1	Bare fiber=1 900 µm tube=2 3mm jacket=3 2mm jacket=4 1.6mm jacket=5	0.5m=1 1.0m=2	None=0 FC/APC=1 FC/PC=2 SC/APC=3 SC/PC=4 ST=5 LC/UPC=6 LC/APC=7	None=0 FC/APC=1 FC/PC=2 SC/APC=3 SC/PC=4 ST=5 LC/UPC=6 LC/APC=7	Slow axis working = S Flat axis working = F Both axis working = B

* Select from below.

CWDM ITU Table following standard ITU-T G.694.2 defined center wavelengths:

Channel #	Wavelength (nm)
27	1270
29	1290
31	1310
33	1330
35	1350
37	1370
39	1390
41	1410
43	1430
45	1450
47	1470
49	1490
51	1510
53	1530
55	1550
57	1570
59	1590
61	1610