

Coarse Wavelength Division Multiplexer – CWDM

> mux & demux, 4 channels, mux & demux in one single housing



Features

- 4 channel mux and 4 channel demux integrated in a single housing (separated mux or demux on request)
- Upgrade channel, integrated bandsplitters and tap ports on request
- Micro-hybrid construction in a sealed metal housing
- Epoxy-free optical path, ITU G.694.2 and Telecording GR1221 compliant
- Extremely small component dimensions: 19 x 15.5 x 9 mm³, other dimensions on request
- Flexible Location of Fiber Ports, for details see Products page
- Also available as integrated Patch Cord CWDM for flexible system configurations to enable multiplexing without using any board space
- Single mode and multi mode fibers possible, fiber packaging: loose tube or 250 μm coating
- Packaging on line card or in CWDM sub-system for rack mounting on request

Applications

- Combines / separates up to 4 channels with a 20 nm spacing
- Metro Core, Metro Access, Metro Enterprise, Cable TV, 3G Telephony (UMTS), Datacomm, WAN, RFTS, Sensor Applications
- Analog and digital transmission systems

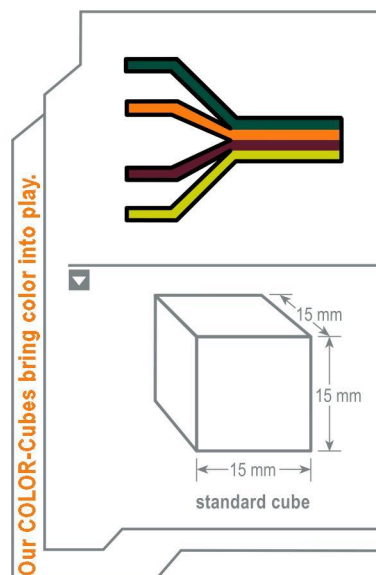
Specifications

Parameters	Coarse Wavelength Division Multiplexer – mux & demux (all values refer to single mode)	
Channels	4 channel mux & 4 channel demux	
Center Wavelength [nm]	choice of 4 wavelengths within <u>one</u> band	
Band 1 (red band)	1471 / 1491 / 1511 / 1531 / 1551 / 1571 / 1591 / 1611	
Band 2 (blue band)	1271 / 1291 / 1311 / 1331 / 1351 / 1371 / 1391 / 1411 / 1431 / 1451	
	Upgrade: remaining wavelengths of band other wavelength upon request; please contact CUBO	
Optical Bandwidth	> 13 nm (higher bandwidth on request)	
Insertion Loss *	4 channel CWDM	< 1.9 dB (premium versions available)
Link Loss* for mux – demux pair	< 3.8 dB	
Isolation **	adjacent channel	> 30 dB
	non-adjacent channel	> 40 dB
	Isolation Spectral Range Band 1 (red)	1460-1620 nm
	Isolation Spectral Range Band 2 (blue)	1260-1460 nm
Return Loss *	> 45 dB (50 dB typ.)	
Directivity (for mux)	> 50 dB	
Polarization Dependent Loss	< 0.2 dB	
Max. optical power	250 mW	
Operating Temperature	0°C to 70°C (-40°C to 85°C on request)	
Storage Temperature	-40°C to 85°C (when removed from plastic package)	
Package Dimensions	19 x 15.5 x 9 mm ³	

* With passband, valid over full temperature range and at all states of polarization but without connector losses.

** Valid over full temperature range and at all wavelengths across the channel.

Additional components according to your specifications on request! Please contact Cube Optics for further details.



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Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please write the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact Cube Optics AG at +49-6131-69851-0 or via e.mail at sales@cubeoptics.com, or visit our website at www.cubeoptics.com.

Ordering example: CMD-40-A-0-S-12-1-B-15

CMD - - - - - - - - -

no. of channels	code
4	40

optional features	code
none	0

Fiber length	code
0.5 m	A
1 m	B

Connector in/out*	code
none	0
SC/PC	1
FC/PC	2
SC/APC**	3
FC/APC**	4
LC/PC	5
MU/PC	6
E2000	7
E2000/HRL**	8
ST/PC	9

housing	code
Standard 4 channel	S

Center wavelengths [nm]	code
1511 / 1531 / 1551 / 1571	A
1471 / 1491 / 1591 / 1611	B
1271 / 1291 / 1311 / 1331	C
1351 / 1371 / 1391 / 1411	D
1551 / 1571 / 1591 / 1611	E
1471 / 1491 / 1511 / 1531	F

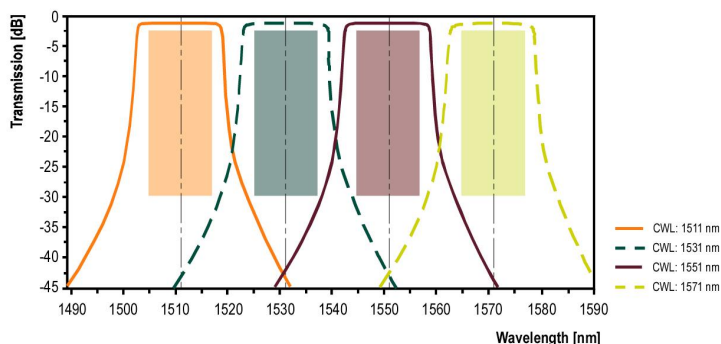
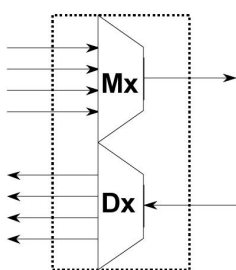
fiber type an packaging	code
Corning SMF-28™ (9,125,250 μm) 900 μm loose tube	1
Corning SMF-28™ (9,125,250 μm) 250 μm coating	2
Multi mode fiber GI (50,125,250 μm) 900 μm loose tube	3
Multi mode fiber GI (50,125,250 μm) 250μm coating	4
Multi mode fiber GI (62.5,125,250 μm) 900μm loose tube	5
Multi mode fiber GI (62.5,125,250 μm) 250μm coating	6

connectors only available in combination with loose tube fiber protection
* device regarded as demultiplexer
** 8° angular polishing

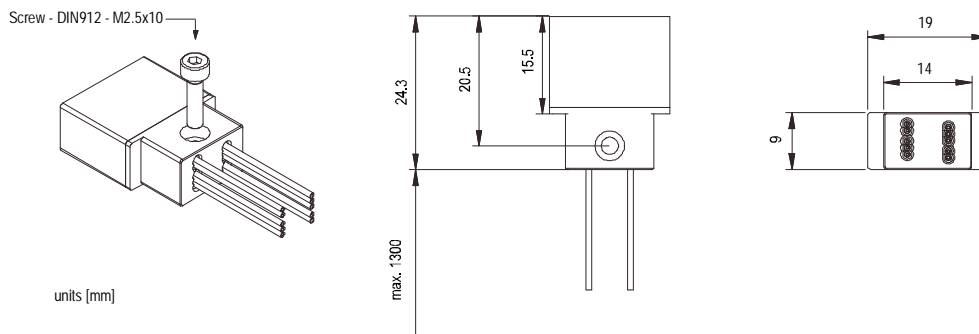
Further configuration on request!

Port Configuration and Spectral Performance

Port Configuration



Standard 4 channel mux & 4 channel demux housing



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