

# Coarse Wavelength Division Multiplexer – CWDM

## > mux or demux, 8 channels with upgrade, single mode



### Features

- Device works as a multiplexer, demultiplexer or in a bidirectional single fiber link
- Multiplexer and Demultiplexer paired for lowest link loss
- Micro-hybrid design in a sealed metal housing
- Epoxy free optical path
- RoHS compliant per EU Directive 2002/95EC
- UL 94 V0 flammability rating
- Tested in accordance with Telcordia GR-1209/1221, uncontrolled environment
- Fit for outside plant deployment

### Applications

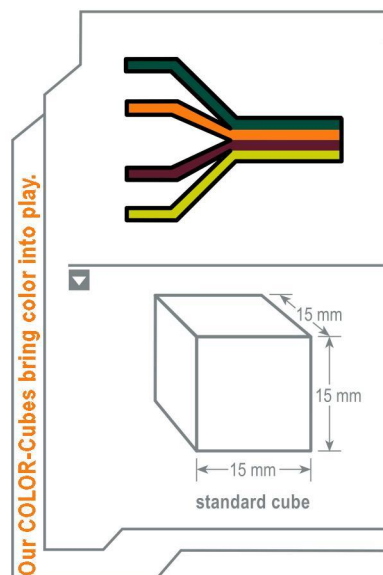
- Combines / separates 8 channels with a 20 nm spacing
- Includes upgrade port, un-muxed signals passed through
- Metro Core, Metro Access, Metro Enterprise, Cable TV, 3G Telephony (UMTS), Datacomm, WAN, RFTS, Sensor Applications
- Analog and digital transmission systems

### Specifications

Parameters	Coarse Wavelength Division Multiplexer – mux/demux (all values refer to single mode) (all values refer to single mode/multi mode: see separate datasheet)		
Channels	8+1		
Center Wavelength [nm]	8 channels with in one 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		
Optical Bandwidth	> 13 nm (higher bandwidth on request)		
Upgrade Port	1310+/-50nm	C-8B	
	1260nm...1458.5nm	C-8F	
	1464.5nm...1617.5nm	C-8G	
Insertion Loss *		Standard	Premium
	Mux	< 2.5 dB	< 2.2 dB
	Demux	< 2.7 dB	< 2.4 dB
Isolation **		Mux	Demux
	CWDM ports	> 13 dB	> 30 dB (adj.) / > 40 dB
	UG port	> 15 dB	> 40 db
Return Loss *	> 45 dB (50 dB typ.)		
Directivity (for mux)	> 50 dB		
Polarization Dependent Loss	< 0.25 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	Mux: 19 x 15.5 x 9 mm <sup>3</sup> / Demux: 22 x 15.5 x 10.5 mm <sup>3</sup>		

\* 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.



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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: C-8F-M-B-S-S-12-1-B-15

C -  -  -  -  -  -  - 1 2 -  -  -

no. of channels	code	mux or demux code	grade	code	Fiber length	code	Connector in/out* code
8	80	mux	Standard	S	0.5 m	A	none
8+Monitor	8D	demux	Premium	P	1.0 m	B	SC/PC
8ch red + 1310	8B				0.3 m	T	FC/PC
8ch red + UG	8F				0.35 m	U	SC/APC**
(Skip 0)*					0.4 m	V	FC/APC**
8ch blue + UG	8G						LC/PC
(Skip 0)*							MU/PC
							E2000
							E2000/HRL**
							ST/PC

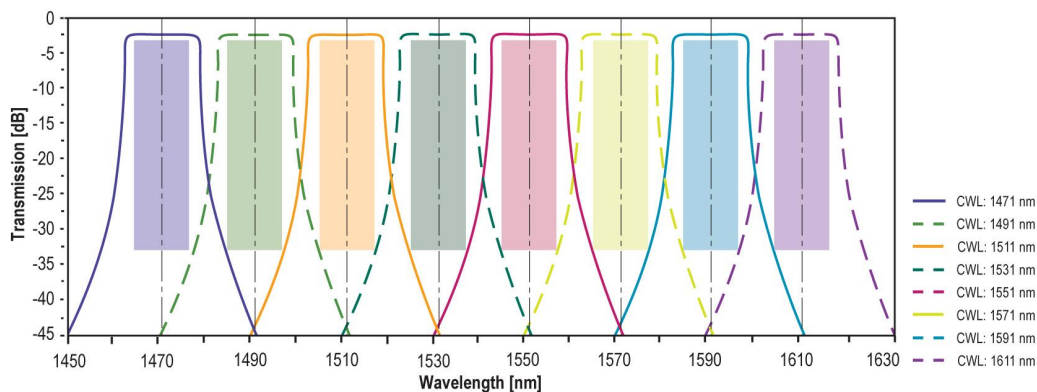
Center wavelengths [nm]	code	fiber type and packaging	code
1271 / 1291 / 1311 / 1331 / 1351 / 1371 / _ / _ / 1431 / 1451	A	Coming SMF-28™ (9,125,250 μm) 900 μm loose tube	1
1471 / 1491 / 1511 / 1531 / 1551 / 1571 / 1591 / 1611	B	Coming SMF-28™ (9,125,250 μm) 250 μm coating	2
1271 / 1291 / 1311 / 1331 / 1351 / 1371 / 1391 / 1411	C	Multi mode fiber GI (50,125,250 μm) 900 μm loose tube	3
1271 / 1291 / 1311 / 1331 / 1351 / 1371 / _ / 1411 / 1431	D	Multi mode fiber GI (50,125,250 μm) 250 μm coating	4
		Multi mode fiber GI (62,5,125,250 μm) 900 μm loose tube	5
		Multi mode fiber GI (62,5,125,250 μm) 250 μm coating	6

\* no. of skipped ITU channels

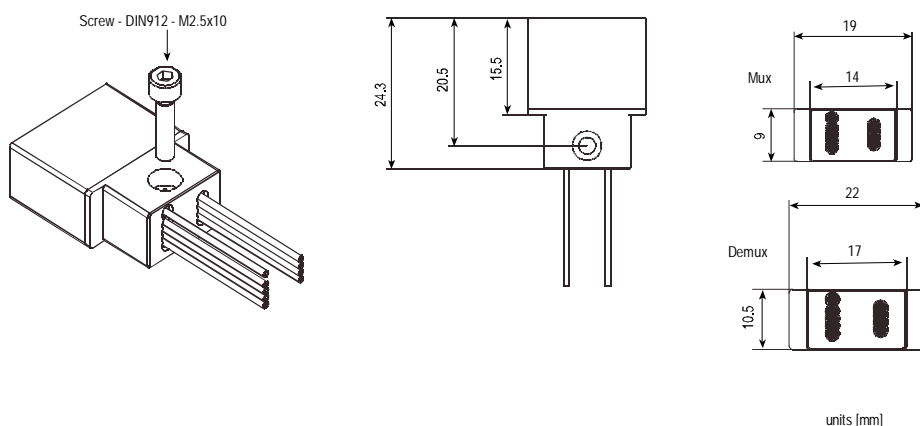
connectors only available in combination with loose tube fiber protection  
\* device regarded as demultiplexer  
\*\* 8° angular polishing

Further configuration on request!  
Please ask for separate datasheets with grey code.

## Typical Spectral Performance of 8 Channel Multiplexer



## Standard 8 channel housing



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