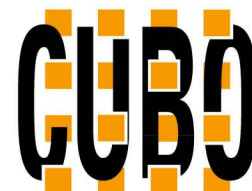


# Coarse Wavelength Division Multiplexer – CWDM

## > 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

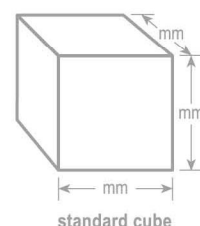
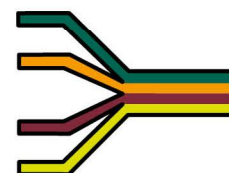
### Specifications

| Parameters                  | Coarse Wavelength Division Multiplexer – mux/demux (all values refer to single mode)<br>(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.

Our COLOR-Cubes bring color into play.



standard cube

All information contained herein is believed to be accurate and is subject to change without notice. No responsibility is assumed for its use. Cube Optics AG, its subsidiaries and affiliates, or manufacturer, reserve the right to make changes without notice, to product design, product components and product manufacturing methods. Some specific combinations of options may not be available. Please contact Cube Optics AG for more information.

**Cube Optics AG**



## 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                  |

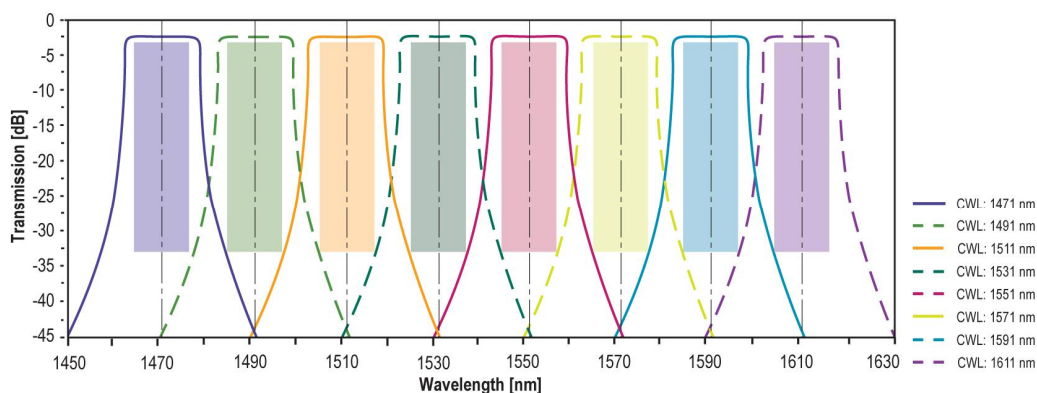
| Center wavelengths [nm]                                       | code | fiber type an packaging          | code |
|---|------|----------------------------------|------|
| 1271 / 1291 / 1311 / 1331 / 1351 / 1371 / _ / _ / 1431 / 1451 | A    | Coming SMF-28™                   |      |
| 1471 / 1491 /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

\* no. of skipped ITU channels

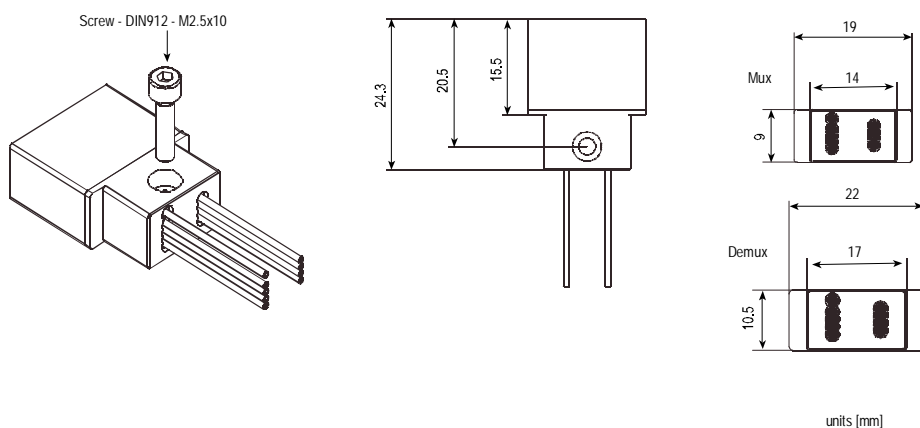
connectors only available in combination with loose tube fiber protection  
 \* device regarded as demultiplexer  
 \*\* 8° angular polishing

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

## Typical Spectral Performance of 8 Channel Multiplexer



## Standard 8 channel housing



Corporate Office:  
 Cube Optics AG  
 Robert-Koch-Strasse 30  
 55129 Mainz / Germany

phone: +49-6131-69851-0  
 fax: +49-6131-69851-79  
 sales@cubeoptics.com  
 www.cubeoptics.com