



OCMX-D

Modular dense wavelength division multiplexers

The dense wavelength division multiplexing technique combines (or multiplexes) two or more signals with different wavelengths in one common fiber. The same components can also be used to separate the wavelengths (de-multiplexing) at the remote location.

The OCM modular packaging provides a robust and simple method for integrating these devices into your network.

Advantages

- Consistent performance
- Low optical loss
- Low polarization sensitivity
- Excellent mechanical and environmental characteristics
- Fast installation and commissioning
- Housing size varies depending on configuration, providing optimal utilization of space

Applications

- DWDM in long haul networks
- DWDM upgrades in metro networks
- Increase the capacity between the central office and the headend in HFC networks
- DWDM overlay in PON architectures

The DWDM components are based on TFF (thin-film-filter) technology.

- Not all configurations are possible. Please consult your local sales engineer for confirmation.
- For high channel counts (>8). 8skip1 filters are used to keep IL as low as possible. Following channels will be skipped: ITU 15- 24- 33- 42- 51- 60.

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Modular dense wavelength division multiplexers

Ordering Information

OCM X - D X X X XX X XX

Size

| | |
|---|---|
| 1 | LGX module 29 mm (1.1") wide |
| 2 | LGX module 58 mm (2.3") wide |
| 3 | LGX module 87 mm (3.4") wide |
| F | High density module 16 mm (0,6") wide (*) |

Type

| | |
|---|-----------------------------------|
| M | Multiplexing |
| D | Demultiplexing |
| X | Double demux (for 2 fiber system) |
| Y | Double mux (for 2 fiber system) |

Number of channels

| | |
|---|-------------|
| 1 | 1 channel |
| 2 | 2 channels |
| 4 | 4 channels |
| 8 | 8 channels |
| G | 12 channels |
| S | 16 channels |
| Y | 20 channels |
| Q | 40 channels |

(*) Requires CommScope customized shelf for installation

Example

OCM2-DD81391S2

8 channels DWDM demultiplexer, 100 GHz,
ITU 39- 40- 41- 42- 43- 44- 45- 46. 9 SC/APC connectors.

Connector type

| | | | |
|-----------------|----|-------|----|
| Min.return loss | SC | E2000 | LC |
| 50 dB (UPC)* | S1 | | L1 |
| 60 dB (APC 8°)* | S2 | E9 | L2 |
| 60 dB (APC 9°)* | S3 | | |

*UPC Ultra polished physical contact

*APC Angled polished physical contact

Channel sequence (ITU grid)

| | |
|---|---------------------------------|
| 0 | One channel only |
| 1 | 0,8 nm (e.g. 33, 34, 35,) |
| 2 | 1,6 nm (e.g. 33, 35, 37,) |
| 3 | 0,8 nm + 1310 nm |
| 4 | 0,8 nm + upgrade port |
| 5 | 0,8 nm + upgrade port + 1310 nm |

Channel spacing

| | |
|---|-----|
| 1 | 100 |
|---|-----|

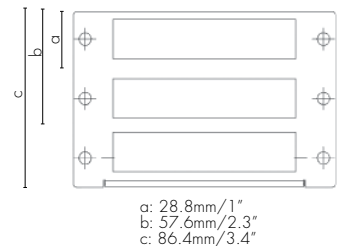
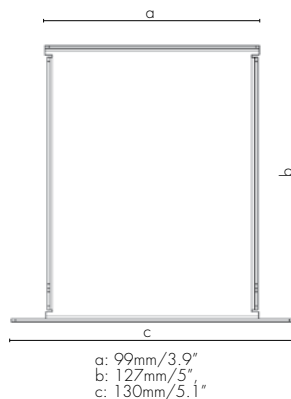
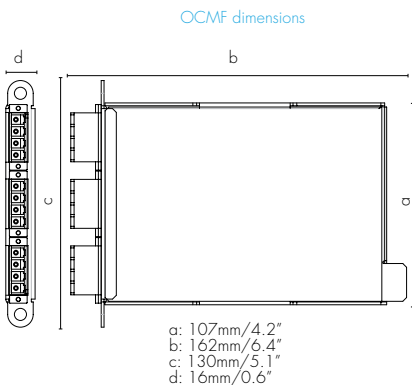
Starting wavelength (ITU grid)

| | |
|----|------------|
| 15 | 1565,50 nm |
| 16 | 1564,69 nm |
| ⋮ | ⋮ |
| 60 | 1529,55 nm |

Performance specifications

Please refer to RUD proposal 5400.

OCM1, OCM2 and OCM3 dimensions



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