

# CWDM-8ULE-1xxx-1xxx

Ultra Low Loss 8 and 16 Channel CWDM Filter/Mux with Express port for Video and Data applications

# **Data Sheet**

### Description

The CWDM-8ULE-1xxx-1xxx are Ultra Low Loss passive CWDM MUX/DMUX filters that fit with the miniHUB frame.

Each CWDM filter has 10 ports, 8 ports for accepting the CWDM wavelengths and a common port that combines the 8 channels for feeding to and from your fiber network. These filters also have and EXPRESS port which allows these units to be cascaded into a larger 16 channel CWDM system.

These filters use the LC/PC fiber connectors that are preferred by SMPTE

With two of these filters you can obtain a 16 channel CWDM system in a 1 rack unit miniHUB frame, that's compact.

These filters are shipped in pairs of one MUX and one DMUX.

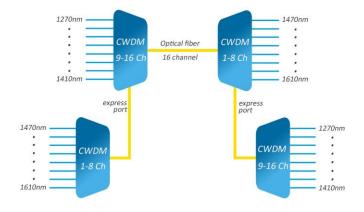
#### **Part Number Options**

| Part Number         | Channel<br>wavelengths<br>(nm) | Temperature<br>*) |
|---------------------|--------------------------------|-------------------|
| CWDM-8ULE-1270-1410 | 1270 ~ 1410                    | 0°C to +40°C      |
| CWDM-8ULE-1470-1610 | 1470 ~ 1610                    | 0°C to +40°C      |

\*) Rated temperature for the complete miniHUB.

#### Features

- Ultra Low Loss performance with max 2.6dB loss end to end on an 8 channel system
- Ultra Low Loss performance with max 4.9dB loss end to end on a 16 channel system
- Up to 16 channels per fiber •
- Easy upgrade from 8 to 16 channels •
- Express port can be used for +1 channel • communication (1310nm or 1550nm)
- Compliant to SMPTE 297-2006 •
- Compliant to ITU-T G.694.2
- High isolation allowing bi-directional traffic •
- LC/UPC connector



## Absolute Maximum Ratings

Absolute maximum ratings are those values beyond which functional performance is not intended, device reliability is not implied, and damage to the device may occur.

| Parameter                           | Minimum | Maximum | Unit |
|-------------------------------------|---------|---------|------|
| Storage temperature (non-operating) | -40     | +85     | °C   |
| Relative Humidity (non-condensing)  | 5       | 95      | %    |

# **Recommended Operating Conditions**

| Parameter                          | Minimum | Typical | Maximum | Unit |
|------------------------------------|---------|---------|---------|------|
| Case operating temperature:        | -10     |         | +65     | °C   |
| Relative Humidity (non-condensing) | 5       |         | 90      | %    |

## **Optical Characteristics**

| Parameter   | Minimum        | Typical  | Maximum | Unit |
|---|----------------|--|---------|------|
| Number of Channels  |                | 8 + Common + Express (16 when using 2 filters with express connection) |         |      |
| Operating Center Wavelenth                                    |                |  |         |      |
| CWDM-8ULE-1270-1410:  | 1270, 1290, 13 | 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410                         |         | nm   |
| CWDM-8ULE-1470-1610:  | 1470, 1490, 15 | 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610                         |         | nm   |
| Channel Spacing   |                | 20   |         | nm   |
| Insertion Loss, CWDM Pass Channels (including connector loss) |                |  | nm      |      |
| CWDM-8ULE-1270-1410:  |                |  | 1.8     | dB   |
| CWDM-8ULE-1470-1610:  |                |  | 1.3     | dB   |
| Insertion Loss, Express Port (including connector loss)       |                |  | nm      |      |
| CWDM-8ULE-1270-1410:  |                |  | 1.8     | dB   |
| CWDM-8ULE-1470-1610:  |                |  | 1.3     | dB   |
| Channel Ripple  |                |  | 0.5     | dB   |
| Isolation, Adjacent Channel                                   | 30             |  |         | dB   |
| Isolation, Non-Adjacent Channel                               | 45             |  |         | dB   |
| Isolation, Express Port                                       | 15             |  |         | dB   |
| Polarization Dependant Loss                                   |                |  | 0.2     | dB   |
| Polarization Mode Dispersion                                  |                |  | 0.2     | ps   |
| Directivity   | 50             |  |         | dB   |
| Return Loss   | 45             |  |         | dB   |
| Connector   |                | LC/UPC   |         |      |
| Transmitting circuit fiber                                    | Single Mode (9 | Single Mode (9/125µm) of type SMF-28e                                  |         |      |

Norwia AS P.O.Box 14 3201 Sandefjord Norway Norwia AS Kilgata 12 3217 Sandefjord Norway Contact: phone: +47 33 45 20 90 e-mail: <u>info@norwia.no</u> web: norwia.com

