**OPTICAL SYSTEMS DESIGN**

## Applications

▲ High capacity trunking

▲ Transportation CCTV Systems

▲ Metro access networks

## Features

▲ Available with SC or FC connector types

▲ Reliable, completely passive operation

▲ Extremely low access insertion loss

▲ Wide temperature range operation

▲ Available in 1 x 2, 1 x 3, 1 x 4, 1 x 8 or 1 x16 configurations

▲ Can operate from 1270nm to 1610nm

## Description

The OSDWC Coarse Wavelength Division Multiplexer/Demultiplexer (CWDM) provides a very cost effective way of efficiently utilizing the inherent transmission capacity of singlemode fibers. It incorporates a CWDM coupler which provides low loss combining of any of the standard wavelengths in the 1270 to 1610nm band onto a single fiber. The CWDM demultiplexer separates these optical signals at the other end of the fiber link. It is packaged in a 1RU 19" rack mounting enclosure and employs standard SC/PC connectors but is also available with FC or angled physical contact (APC) connectors for minimal optical reflections as is desirable in very high capacity trunks and in CATV applications. It is also available in standalone module format.

## Ordering Information

| Part No. | Description |
|---|---|
| OSDWC02 (47,49) | CWDM 2-channel coupler card (1470nm, 1490m) |
| OSDWC03 (51,55,57) | CWDM 3-channel coupler card (1510nm, 1550nm, 1570nm) |
| OSDWC04 (47-53) | CWDM 4-channel coupler card (1470nm – 1530nm) |
| OSDWC08 (47-61) | CWDM 8-channel coupler card (1470nm – 1610nm) |
| OSDWC16 (31-61) | CWDM 16-channel coupler card (1310nm – 1610nm) |
| Option C | Standalone module format |
| Option U | 1RU Enclosure |

**Optical**

| Parameter | Description |
|---|---|
| Directivity (dB) | ≥ 55 |
| Fiber type | Corning Singlemode SMF-28 |
| Operating wavelength | 1270 to 1610nm on 20nm spacing ± 6nm |
| Connectors | SC standard but, FC, SC/APC and FC/APC optional |
| Port configuration | 1 x 2, 1 x 3, 1 x 4, 1 x 8, 1 x 16 (1 x 8 shown in photo) |

| Configuration | WC2 (1 x 2) | WC3 (1 x 3) | WC4 (1 x 4) | WC8 (1 x 8) | WC16 (1 x 16) |
|---|---|---|---|---|---|
| Maximum insertion loss (dB) | 2.0 | 2.5 | 2.5 | 3.0 | 5.0 |
| Uniformity (dB) | 0.5 | 0.7 | 0.7 | 1.0 | 1.0 |
| Demux isolation | >30.0 | >30.0 | >30.0 | >30.0 | >30.0 |

**Physical**

| Parameter | Description |
|---|---|
| Operating Temperature Range | - 40 to +85 °C |
| Storage Temperature Range | - 40 to +85 °C |
| Package Type | Module |
| Package Dimensions (mm) | 104W x 144D x 25H |
| Package Type | 1RU high 19" rack mounting enclosure |
| Package Dimensions (mm) | 483W x 210D x 44H |