

# GREEN 1480/1550 NM MICRO-OPTIC WDM

## MWDMG1514 Series

### Product Description

Oplink's Micro-Optic Wavelength Division Multiplexer (MWDM) is based on thin-film filter technology and patented athermal platform for optical device. This device has very flat and wide passband, low insertion loss, and high isolation which makes it ideal for combining pump (1480nm) and signal light (1550nm) in Optical Fiber Amplification Systems. The MWDM is used in high-power applications in DWDM systems. Oplink MWDM devices are Bellcore GR-1221 qualification tested and complied with industry green initiatives such as Rohs and WEEE. All Oplink products are epoxy-free in the optical path.



### Performance Specification

| MWDMG1514 Series                                |  | Min  | Typical | Max  | Unit |
|---|--|--|---------|------|------|
| Pass Channel Wavelength Range $\lambda_1$       | Type 1514  | 1528   |         | 1610 | nm   |
|   | Type 1415  | 1440   |         | 1493 | nm   |
| Reflection Channel Wavelength Range $\lambda_2$ | Type 1514  | 1440   |         | 1493 | nm   |
|   | Type 1415  | 1528   |         | 1610 | nm   |
| Insertion Loss *                                | Pass Channel @ $\lambda_1$                       |  |         | 0.7  | dB   |
|   | Reflect Channel @ $\lambda_2$                    |  |         | 0.5  |      |
| Isolation                                       | Reflect Channel @ $\lambda_1$                    | 14   |         |      | dB   |
|   | Pass Channel @ $\lambda_2$                       | 30   |         |      |      |
| Passband Ripple                                 |  |  |         | 0.15 | dB   |
| Directivity                                     |  | 50   |         |      | dB   |
| Return Loss                                     |  | 50   |         |      | dB   |
| Polarization Dependent Loss                     |  |  |         | 0.1  | dB   |
| Polarization Mode Dispersion                    |  |  |         | 0.05 | ps   |
| Maximum Power Handling                          |  |  |         | 500  | mW   |
| Fiber Type                                      |  | Corning SMF-28   |         |      |      |
| Operating Temperature                           |  | 0 to +70   |         |      | °C   |
| Storage Temperature                             |  | -40 to +85   |         |      | °C   |
| Package Dimensions **                           | 250 $\mu$ m Bare Fiber<br>900 $\mu$ m Loose Tube | P1: ( $\phi$ ) 5.5 x (L) 34.0<br>P2: ( $\phi$ ) 5.5 x (L) 40.0 |         | mm   |      |

Note:

\* Values are referenced without connector loss.

\*\* The mechanical tolerance should be +/-0.2 mm on all package dimensions unless otherwise custom specified.

\*\*\* The maximum IL is under all states of polarization and within the full operating temperature and wavelength ranges specified

### Features

- ◆ Environmental Green Plan Compliance
- ◆ Wide Operating Wavelength Range
- ◆ Low Insertion Loss
- ◆ High Channel Isolation
- ◆ Ultra Flat Wide Passband
- ◆ Highly Stable & Reliable
- ◆ Epoxy-free Optical Path

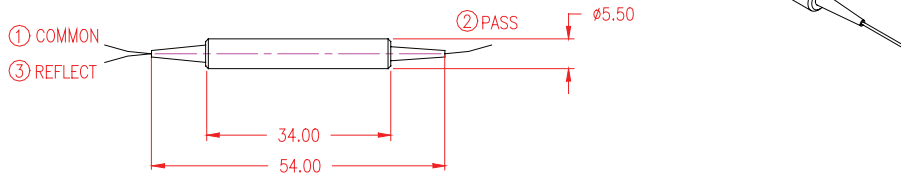
### Applications

- ◆ Fiberoptic Amplifiers
- ◆ WDM Monitoring

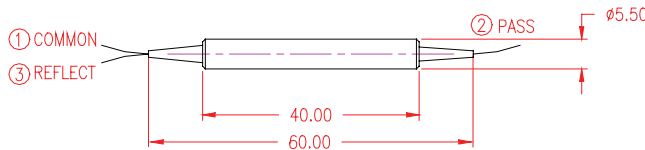
**MWDMG1514 SERIES**

**Mechanical Drawing / Package Dimensions (dimension in mm)**

P1: 250 μm bare fiber

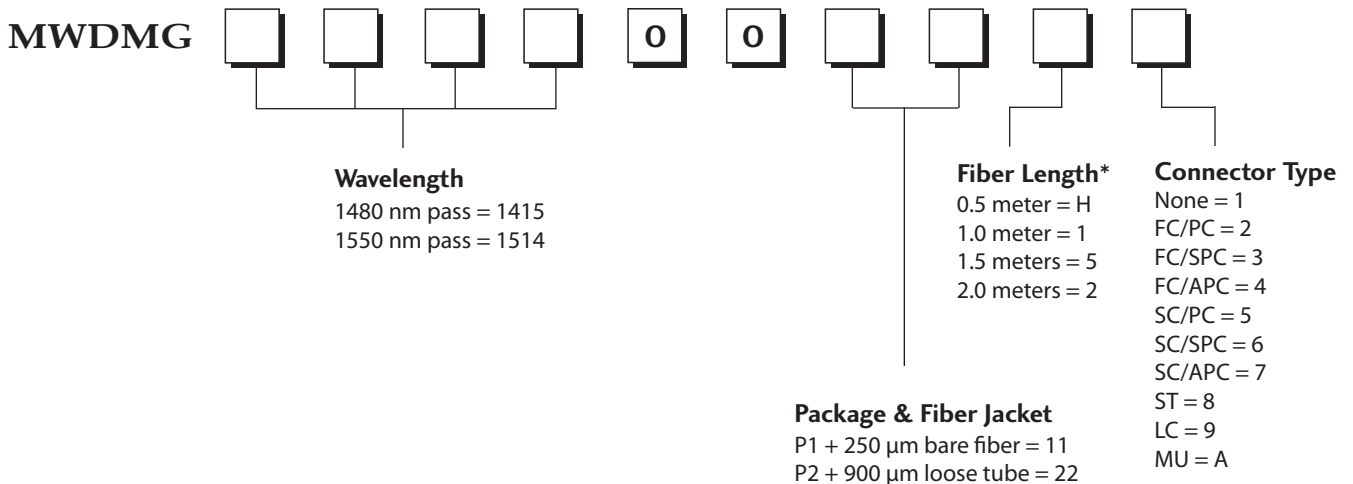


P2: 900 μm loose tube



**Ordering Information**

Oplink can provide a remarkable range of customized optical solutions. For detail, please contact Oplink's OEM design team or account manager for your requirements and ordering information (510) 933-7200.



\* The tolerance of fiber length is +/-0.1m. 1 meter is standard.  
The lead-time for special fiber length will be longer.