

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# POLARIZATION MAINTAINING TAP COUPLER

## **PMTC Series**

## **Product Description**

Oplink's Polarization Maintaining Tap Couplers (PMTC) is based on athermal platform. The technology is a lead-free packaging platform and no epoxy in the optical path. These devices feature super high extinction ratio, very high power handling and low insertion loss. Oplink's patented packaging technology ensures the highest quality and reliability.

Oplink can provide customized designs to meet specialized feature applications. Also, Oplink offers modular assemblies that integrate other components to form a full function module or subsystem.



## **Performance Specification**

| PMTC Series                        |                     | Specifications |                          |         | T    |    |  |  |
|------------------------------------|---------------------|----------------|--------------------------|---------|------|----|--|--|
|                                    |                     | Ultra P Grade  | P Grade                  | A Grade | Unit |    |  |  |
| Wavelength Range                   |                     |                | 1450 ± 30                |         |      | nm |  |  |
|                                    |                     |                | 1480 ± 30                |         |      |    |  |  |
|                                    |                     |                | 1550 ± 30                |         |      |    |  |  |
| Insertion Loss Tap Port 50% 50%    |                     | 5%             | ≤ 13.8                   |         |      | dB |  |  |
|                                    |                     | 10%            | ≤ 10.8                   |         |      |    |  |  |
|                                    |                     | 50%            | ≤ 3.8                    |         |      |    |  |  |
| Insertion Loss Signal Port 5% 50%  |                     | 5%             | ≤ 1.0                    |         |      |    |  |  |
|                                    |                     | 10%            |                          | ≤ 1.3   |      | dB |  |  |
|                                    |                     | 50%            |                          | ≤ 3.8   |      |    |  |  |
| Extinction Ratio @ 23 °C           |                     |                | ≥ 23                     | ≥ 20    | ≥ 18 | dB |  |  |
| Optical Return Loss                |                     |                | ≥ 50                     |         |      | dB |  |  |
| Directivity                        |                     |                | ≥ 50                     |         |      | dB |  |  |
| Direction of Incident Polarization |                     |                | Slow Axis                |         |      | dB |  |  |
| Operting Power Handling            |                     |                | ≤ 500                    |         |      | mW |  |  |
| Operating Temperature              |                     |                | 0 to +70                 |         |      | °C |  |  |
| Storage Temperature                |                     |                | -40 to +85               |         |      | °C |  |  |
| Fiber Type                         |                     |                | Fujikura Panda PM Fiber  |         |      |    |  |  |
| Physical<br>Dimensions             | P1 bare fiber       |                | 5.5±0.1 (Φ) x 34.0±1 (L) |         |      | mm |  |  |
|                                    | P2 900µm loose tube |                | 5.5±0.1 (Φ) x 40.0±1 (L) |         |      |    |  |  |

# Features

- Super High Extinction Ratio
- Low Insertion Loss
- ♦ Highly Stable & Reliable
- Epoxy-Free Optical Path
- **♦** Compact Size
- High-Power Handling

## **Applications**

- **♦** EDFA
- Raman Amplifier
- 40-Gbps, 100-Gbps Transmission System
- Laboratory R&D

Note



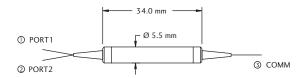
<sup>&</sup>lt;sup>1)</sup> All the parameters are excluding connectors; ER is 3dB lower and after connector added



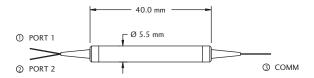
## PMTC SERIES

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

### Package 1: with bare fiber

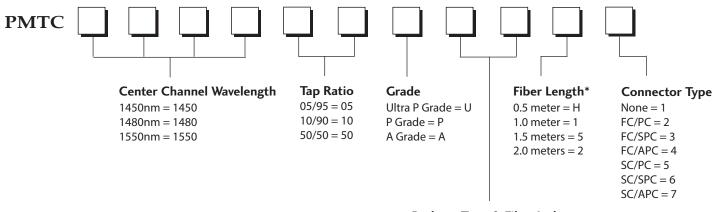


#### Package 2: with 900µm loose tube



## **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.



## Package Type & Fiber Jacket

P1+  $400\mu m$  bare fiber = 11

P1+ 250 $\mu$ m bare fiber = 12

P2+ 250 $\mu$ m fiber+ 900 $\mu$ m loose tube = 21

P2+  $400\mu$ m fiber+  $900\mu$ m loose tube = 22

<sup>\* 1</sup> meter is standard. The lead-time for special fiber length will be longer. Connector key is aligned to slow axis.