

# POLARIZATION MAINTAINING BEAM COMBINER

## PMBC Series

### Product Description

Oplink's Polarization Maintaining Beam Combiner (PMBC) 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. They are designed to work as pump combiners for EDFA, Raman amplifier systems and 40-Gbps, 100-Gbps transmission system. 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

PMBC Series	Specifications			Unit
	Ultra P Grade	P Grade	A Grade	
Wavelength Range	1450 ± 30			nm
	1480 ± 30			
	1550 ± 30			
Insertion Loss	≤ 0.5	≤ 0.5	≤ 0.7	dB
Wavelength Dependent Loss (WDL)	≤ 0.15			dB
Optical Return Loss	≥ 55			dB
Directivity	≥ 45			dB
Extinction Ratio	≥ 23	≥ 20	≥ 18	dB
Direction of Incident Polarization	Slow Axis			
Operating Power Handling	≤ 2000			mW
Operating Temperature	0 to +70			°C
Storage Temperature	-40 to +85			°C
Fiber Type	Input Ports	Fujikura Panda, PM Fiber		
	Output Port	Corning SMF-28		
Physical Dimensions	P1 (with bare fiber)	5.5±0.1 (Φ) x 34.0±1 (L)		mm
	P2 (with 900μm loose tube)	5.5±0.1 (Φ) x 40.0±1 (L)		

Note:

\* All the parameters are excluding connectors; ER is 3dB lower and after connector added

### Features

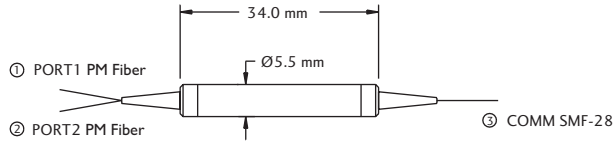
- ◆ Super High Extinction Ratio
- ◆ Low Insertion Loss
- ◆ Highly Stability & Reliability
- ◆ Epoxy-Free Optical Path
- ◆ Compact Size
- ◆ High-Power Handling

### Applications

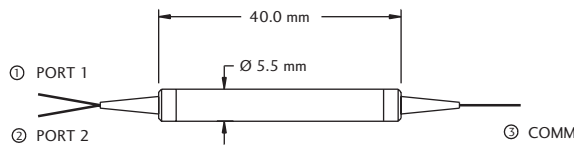
- ◆ EDFA
- ◆ Raman Amplifier
- ◆ 40-Gbps, 100-Gbps Transmission System
- ◆ Laboratory R&D

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

**Package 1 : with bare fiber**

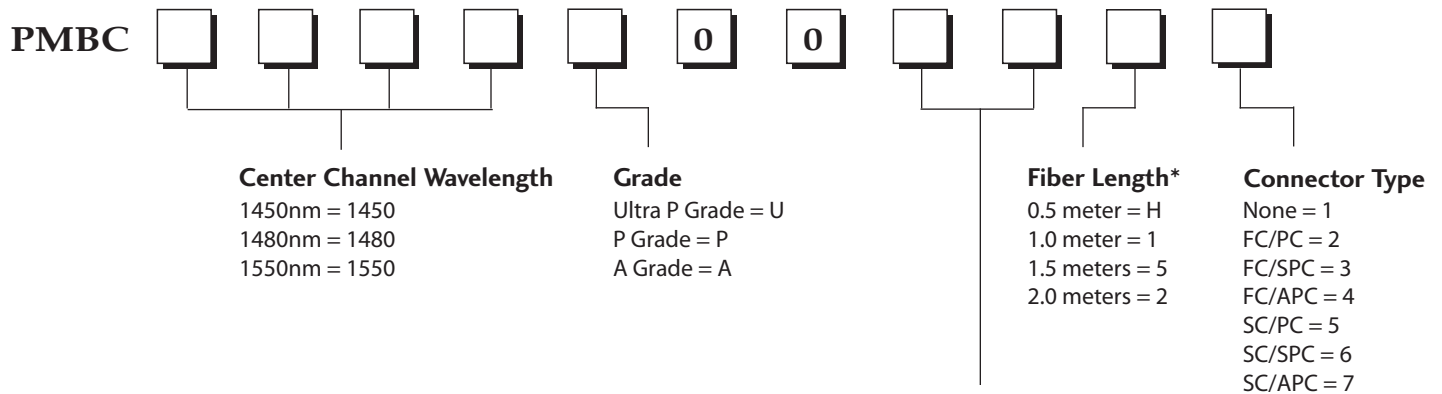


**Package 2 : with 900µm loose tube**



**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+ 400µm bare fiber = 11
- P1+ 250µm bare fiber = 12
- P2 +250µm fiber +900µm loose tube = 21
- P2 +400µm fiber +900µm loose tube = 22

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