

**Polarization Maintaining Components** 



## **Key Features**

- Low Insertion Loss
- High Extinction Ratio
- Compact In-Line Package
- High Stability and Reliability

# 850nm 2x2 Polarization Beam Combiner/Splitter

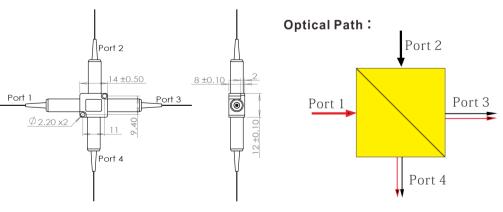
The Polarization Beam Combiner/Splitter can be used either as a polarization beam combiner to combine light beams from two PM input fibers into a single output fiber, or as a polarization beam splitter to split light from an input fiber into two output fibers of orthogonal polarization states.

DK Photonics offers a large selection of PBS/C. These devices can handle powers rang from 300mW to 100W or other on request and have center operating wavelengths ranging from 780 nm to 2050nm.

If you do not see a standard Polarization Beam Combiner/Splitter that meets your needs, we welcome the opportunity to review your desired specification and quote a custom Polarization Beam Combiner/Splitter. Requests for custom fiber pigtails, different wavelengths and handling power of operation or other specific needs will be readily addressed.



# **Package Dimension**



- \* Optical Path: Port 1 Input, Port 3 /Port 4 output, Port 3 Panda fiber is aligned to P1; Port 2 Input, Port 3/Port 4 output, Port 4 Panda fiber is aligned to port 2.
- \* Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

# Applications

- Polarization MUX/Demux
- High power fiber laser
- Optic sensor system
- Coherent Telecommunication Systems
- Polarization Mode Dispersion Compensator

# For more Info

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# 850nm 2x2 Polarization Beam Combiner/Splitter

### **Performance Specifications**

Parameter		Unit	Value	
Grade		-	Р	
Operating w	avelength	nm	850	
Operating ba	andwidth	nm	±20	
Incention los	Тур.	dB	0.80	
Insertion los	Max.	dB	1.20	
Min. Extincti	on Ratio	dB	18	
Return loss		dB	>50	
Directivity		dB	>50	
Max. Power	Handling	W	0.5, 1, 2, 3, 5, 10, 20	
Tensile Load	t de la constante de	Ν	< 5	
Fiber Type	Port 3&Port 4	-	PM780-HP	
	Port 1&Port2 (Same Fiber or Corresponding SM Fiber)	) –	780-HP, or PM780-HP	
Operating te	emperature	°C	-5 ~ +70	
Storing temp	perature	C°	-40 ~ +85	
Package din	nension	mm	14x12x8	

1. above specifications are for device without connector. All parameters are tested at room temperature.

2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower. The default connector key is aligned to slow axis. Power transmits through the connector less than 2W.

3. For >5W high power applications, we will use heat sink package, contact DK Photonics for details.

4. Since the light is bidirectionally reversible, PBC can also be used as PBS.

#### Order information P/N: PBC/PBS-2x2-①-②-③-④-⑤-⑦

When you inquire, please provide the correct P/N number according to our ordering information and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250µm bare fiber pigtail.

1	2	3	4	5	6	$\bigcirc$
Grade	Operating Wavelength	Power Handling (Total)	Fiber type (Port1&2)	Pigtails Diameter	Fiber Length	Connector
P:P	78:780nm 85:850nm XX: Others	L:<0.5W 1:1W 2:2W 5:5W 10:10W	SM:SM fiber PM:PM fiber	25:250μm 90:900μm XX: Others	08:0.8m 10:1.0m XX: Others	00: None FP: FC/PC FA: FC/APC XX: Others

Part Number Example: PBS-2X2-P-85-L-PM-25-10-00

**Description:** 850nm 2X2 Polarization Beam Splitter, 0.5W power, P grade, PM fiber at port 1&2, with bare fiber, 1.0m fiber length, and no connectors at all ports.

# **Ordering Information for Custom Parts**

If you need to customize other specifications, please provide detailed description for your requirement.