

# Isolator Polarization Beam Combiner

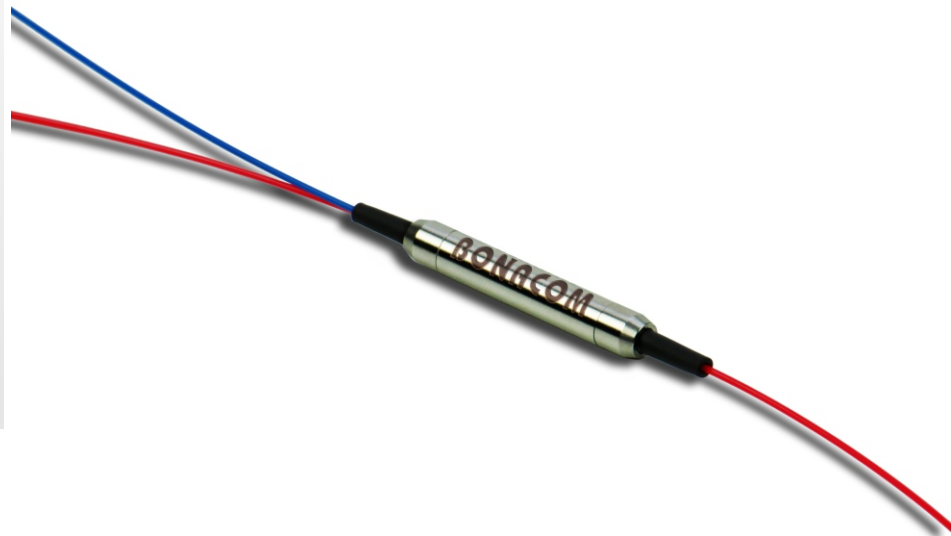
## (1310nm,1550nm,1064nm)

### Features

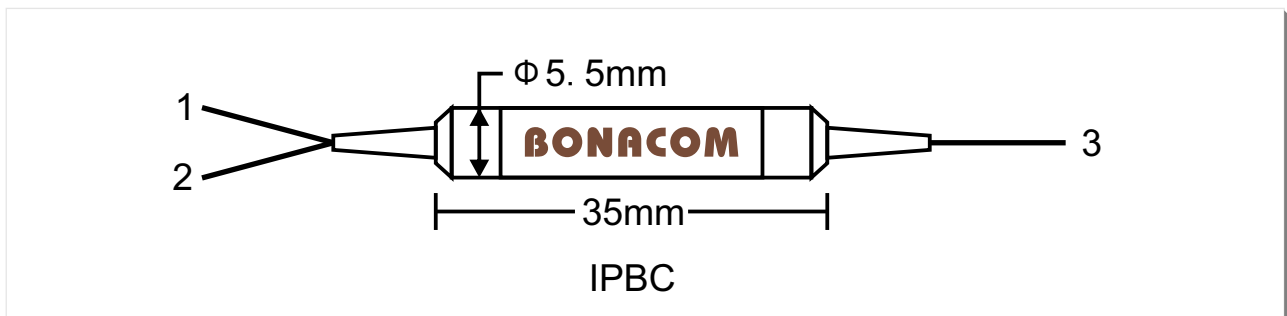
- Low Insertion Loss
- High Return Loss
- High Extinction Ratio
- High Reliability
- High Stability

### Applications

- EDFA & Raman Amplifier
- Fiber Sensor
- Coherent Telecommunication Systems
- Polarization Mode Dispersion Compensator



### ◆ Package Dimensions



**Routing path is from port 1, 2 to 3, Here are three options of polarized state from Port 1, 2 to Port 3:**

**Option 1: PM to SM,**

Port 1: 50%, Linear polarized light in, through slow axis, Port 2: 50%, Linear polarized light in, through slow axis  
Port 3, 100%, Circularly polarized light Out,

**Option 2: PM to PM, port 1 is slow axis 0° aligned to port 3**

Port 1, 2, only work through slow axis, blocked the fast,  
The slow axis of port 1 is aligned to the slow axis of port 3,  
The slow axis of port 2 is aligned to the fast axis of port 3,

**Option 3: PM to PM, port 1 is slow axis 45° aligned to port 3**

Port 1, 2, only work through slow axis, blocked the fast,  
Port 1 or 2, 100%, Linear polarized light in, through slow axis,  
Port 3, 25% linear polarized light out, through slow axis, and 25% by the fast,

## ◆ Specifications

Parameter	Unit	Value	
Stage	-	Dual	Single
Center Wavelength	nm	1310,1550	1310,1550 1064
Operating Wavelength Range	nm	±20	±20 ±5
Typ. Insertion Loss at 23°C	dB	0.55	0.45 1.8
Max. Insertion Loss at 23°C	dB	0.80	0.70 2.1
Typ. Reversed Isolation at 23°C (Port 3 to Port1 or 2)	dB	51	35 35
Min. Isolation at 23°C (Port 3 to Port1 or 2)	dB	42	20 25
Min. Extinction Ratio at 23°C	dB	25	20 20
Directivity	dB		50
Min. Return Loss	dB		50
Max. Optical Power(CW)	mW		300
Max. Tensile Load	N		5
Fiber Type	Port 1 & 2	-	PM Panda fiber
	Port 3	-	PM Panda fiber or SMF-28E or Hi1060
Operating Temperature	°C		-5~+70
Storage Temperature	°C		-40~+85

For device with connector, IL is 0.3dB higher, RL is 5dB lower, ER is 2dB lower.  
The default connector key is aligned to slow axis.

## ◆ Ordering Information

IPBS-1111-234-555-666-789-AAA

1111	-Center Wavelength:	1550=1550nm,1310=1310nm,.....,0850=850nm
2	-Grade:	P=Perfect grade, A=A grade
3	-Core Type:	S=Single-core, D=Dual-core
4	-Option for Port 3 to 1,2:	1=Option 1, 2=Option 2, 3=Option 3
555	-Fiber Type for Port 3:	001=PM1550, 002=PM1310, 003=PM980, 004=Hi1060, 008=SMF-28E
666	-Fiber Type for Port 1,2:	001=PM1550, 002=PM1310, 003=PM980, 004=Hi1060, 008=SMF-28E
7	-Package Dimension:	0=φ5.5x35mm, 1=φ5.5x50mm, S=Specified
8	-Pigtail Type:	0=250μm bare fiber, 1=900μm loose tube
9	-Fiber Length:	0=0.8m,1=1m
AAA	-Connector for Port 1,2,3:	0=FC/UPC,1=FC/APC,2=SC/UPC,3=SC/APC,4=LC/UPC,5=LC/APC, N=None