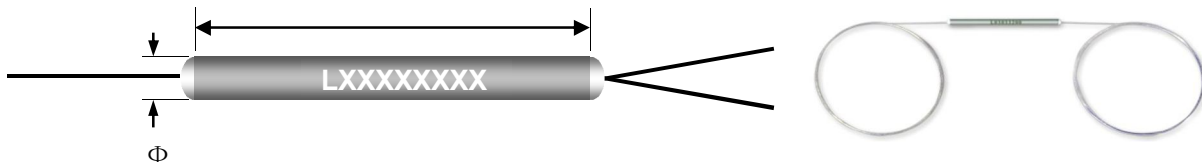


Polarization Maintaining Fused Standard Coupler(PMC)

Description

LightComm uses unique fusing technique and polarization maintaining fiber to build the polarization maintaining fused standard coupler (PMC). The coupling ratio could be selected according to customer's request. It features low excess loss, small size and high polarization extinction ratio. PMC is widely used for optical sensors and optical gyro, optical amplifier.

Mechanical Dimension



Specifications

1. Normal size PM Coupler Specifications:

Wavelength Parameter		780,840 ± 20nm		980,1064 ± 20nm		1310,1480,1550 ± 20nm	
		P	A	P	A	P	A
IL(dB) @Central wavelength	CR						
	50/50	≤3.8	≤4.0	≤3.6	≤3.8	≤3.4	≤3.6
	<u>40/60</u>	<u>≤4.8/3.0</u>	<u>≤5.0/3.2</u>	<u>≤4.6/2.8</u>	<u>≤4.8/3.0</u>	<u>≤4.5/2.6</u>	<u>≤4.6/2.8</u>
	30/70	≤6.3/2.2	≤6.5/2.4	≤5.75/2.0	≤6.1/2.1	≤5.6/1.95	≤5.75/2.1
	20/80	≤8.2/1.7	≤8.5/1.9	≤8.0/1.5	≤8.2/1.7	≤7.6/1.4	≤8.0/1.5
	10/90	≤11.8/1.4	≤12.0/1.6	≤11.6/1.2	≤11.8/1.4	≤11.2/0.85	≤11.6/1.0
	5/95	≤15.0/1.0	≤15.2/1.2	≤14.8/0.8	≤15.0/1.0	≤14.2/0.6	≤14.8/0.8
	3/97	≤17.5/0.9	≤17.7/1.0	≤16.57/0.45	≤17.12/0.6	≤16.2/0.4	≤16.7/0.5
	2/98	≤19.0/0.85	≤19.2/0.95	≤18.4/0.4	≤18.9/0.5	≤18.0/0.35	≤18.5/0.45
	1/99	≤22.5/0.75	≤22.8/0.85	≤22.0/0.35	≤22.5/0.4	≤21.5/0.3	≤22/0.4
0.1/99.9	28~32 / ≤0.6		28~32 / ≤0.3		28~32 / ≤0.25		
Connector Loss		0.8		0.5		0.3	
ER(dB)	CR > 5%	20	18	20	18	20	18
	5% ≥ CR > 1%	18	16	18	16	18	16
	CR ≤ 1%	Out of concern					
Dimension: Φ×L(mm)		<u>3×40</u> or longer (Standard: 3×54)					

2. Mini size PM Coupler Specifications:

Wavelength		780,840±20nm		980,1064±20nm		1310,1480,1550±20nm	
Parameter		P	A	P	A	P	A
IL(dB) @Central wavelength	CR	P	A	P	A	P	A
	50/50	≤4.0	≤4.2	≤3.8	≤4.0	≤3.6	≤3.8
	<u>40/60</u>	<u>≤5.0/3.2</u>	<u>≤5.2/3.4</u>	<u>≤4.8/3.0</u>	<u>≤5.0/3.2</u>	<u>≤4.6/2.8</u>	<u>≤4.8/3.0</u>
	30/70	≤6.5/2.4	≤6.8/2.6	≤6.1/2.3	≤6.3/2.5	≤6.1/2.1	≤6.4/2.3
	20/80	≤8.5/1.9	≤8.8/2.1	≤8.2/1.8	≤8.5/1.9	≤7.9/1.6	≤8.2/1.8
	10/90	≤12.0/1.4	≤12.3/1.6	≤11.5/1.2	≤11.8/1.4	≤11.5/1.0	≤11.8/1.2
	5/95	≤15.2/1.1	≤15.5/1.3	≤14.5/1.0	≤15.0/1.1	≤14.5/0.8	≤15.0/1.0
	3/97	≤17.7/1.0	≤18.0/1.1	≤17.0/0.7	≤17.2/0.8	≤17/0.6	≤17.2/0.8
	2/98	≤18.8/0.9	≤19.2/1.0	≤18.5/0.6	≤18.8/0.7	≤18.5/0.5	≤18.8/0.6
	1/99	≤22 /0.9	≤22.5/1.0	≤22.0/0.5	≤22.5/0.6	≤22/0.5	≤22.5/0.6
	0.1/99.9	28~32 / ≤0.85	27~33 / ≤0.95	28~32 / ≤0.5	27~33 / ≤0.6	28~32 / ≤0.5	27~33 / ≤0.6
Connector Loss		0.8		0.5		0.3	
ER(dB)	CR > 5%	20	18	20	18	20	18
	5% ≥ CR > 1%	18	16	18	16	18	16
	CR ≤ 1%	Out of concern					
Dimension: Φ×L(mm)		3×30 or longer 2.4×30 or longer					

Operating wavelength	CR	IL (dB)@Central wavelength	ER (dB)		Dimensions Φ×L(mm)
			P	A	
1310, 1480, 1550 ±20nm	50/50	≤3.8	≥20	≥18	2.4*25
	40/60	≤4.8/3.0			
	30/70	≤6.4/2.3			
	20/80	≤8.1/1.8			
	10/90	≤11.8/1.2			
	5/95	≤14.8/1.0	≥18/20	≥16/20	
	3/97	≤16.8/0.8			
	2/98	≤18.5/0.7			
	1/99	≤22/0.65	≥NA/20	≥NA/18	
	0.1/99.9	27~33 / ≤0.6			

Parameter	Unit	Specification
Return loss	dB	≥50
Directivity	dB	≥55
Power handling	mW	≤2000
Operating temperature	°C	-5~75
Storage temperature	°C	-40~85
Fiber type	°C	Panda PM fiber

- 1).The specifications are without connector. For devices with connectors, IL should be 0.3dB(1310~1550) or 0.5dB(980~1060) or 0.8dB(780~850) higher, ER should be 2dB lower.
- 2). The specifications are given for slow axis working only, if fast axis or both axis working needed, IL will be 0.3dB higher.
- 3).For device adding connectors, key aligns to slow axis if no special requirement.

Ordering Information

PMC-X-XXX-XXX-XX/XX-X-X-XX/XXX-XX*XX

