

1550nm Polarization Maintaining Patch-cord

Key Features

- High Return Loss
- High Extinction Ratio
- Low Insertion Loss
- Excellent stability and reliability

Polarization maintaining (PM) optical patch cords are widely used in polarization sensitive fiber optical systems for transmission of light that requires the PM state to be maintained.

Polarization Maintaining Patch-cord (Polarization Maintaining jumper) have orthogonal “slow” and “fast” axis with different propagation constants. There is little coupling between the polarization modes, therefore, light launched on one axis would propagate on that axis. It features high extinction ratio as a result of very accurate active alignment between PM Major Axis and the connector key.

We provide PM patch cords at different wavelengths (from 350nm to 2100nm). Those patch cords are made using best-known PM optical fibers (such as Fujikura PM Fibers or Nufern PM Fibers) and first-class quality optical fiber connectors. Our PM patch cord features high extinction ratio, low insertion loss, high return loss and long term reliability. Various PM fiber and connectors are available.

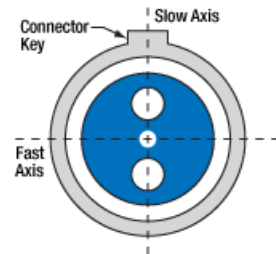
If you do not see a standard polarization maintaining patch cords that meets your needs, we welcome the opportunity to review your desired specification and quote a custom polarization maintaining patch cords. DK Photonics can respond to custom requirements with short lead times.

Applications

- Fiber Laser
- Fiber Instruments
- Fiber I/O Port
- Optical Transmitters & Transceivers



Panda PM Fiber Cross Section



For more Info

Please contact us at:

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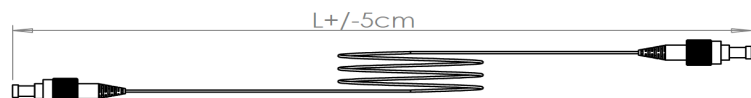
Add.:

4F, Bldg. 18, Qinghu Industrial Park,

Dahe Road, Longhua Dis.,

Shenzhen, China 518109

Drawing Example (FC patch cord):



*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.



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Performance Specifications

Parameters	Unit	Values		
Connector type	-	FC, SC, LC		
Test wavelength	nm	1550		
Operating Wavelength	nm	1440 - 1650		
Cutoff Wavelength	nm	1300-1440		
Grade	-	S	P	A
Insertion loss	dB	≤0.2	≤0.3	≤0.5
Extinction ratio	dB	≥26	≥23	≥20
Return loss	PC	dB	≥50	≥45
	APC	dB	≥60	≥55
Fiber Type	-	Corning PM 15-U25D		
Mode Field Diameter	μm	10.5 ± 0.5 μm @ 1550 nm		
Repeatability	dB	≤0.2		
Changeability	dB	≤0.3		
Optical Power	mW	≤300		
Durability	times	≥1000		
Operation Temperature	°C	-5 to 75		
Storage temperature	°C	-40~ + 85		

1. Above specification may change without notice. Operating wavelength range based on fiber cutoff wavelength.
2. FC Connector key width: Narrow (2.0 mm).
3. Power transmits through the connector less than 2W. The default connector key is aligned to slow axis.
4. ER will be 2dB lower when use Nufern PM fiber.
5. The default length accuracy is +/-5CM, please let us know if you have special requirements.

Order information

P/N: PMPC-①-②-③-④-⑤-⑥-⑦ (PMPig-①-②-③-④-⑤-⑥-⑦: for PM fiber pigtail with only 1 connector)

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better.

①	②	③	④	⑤	⑥	⑦
Wavelength	Grade	Connector key Alignment	Fiber Type	Pigtails Diameter	Fiber Length	Connectors
13:1310nm XX: Others	S:S Grade P:P Grade A: A Grade	S: Slow Axis(default) F: Fast axis	P15: PM1550 XX: fiber name	25:250μm (bare fiber) 90:900μm 20:2.0mm 30:3.0mm XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC XX: Others

Part Number Example: PMPC-15-P-S-P15-90-20-FA

Description: 1550nm Polarization Maintaining patchcord, P grade, PM1550 panda fiber, Slow Axis Connector Key Alignment, with 0.9mm OD loose tube, 2m fiber length, and FC/APC connectors at all ports.

Ordering Information for Custom Parts

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