DK PHOTONICS Optical Passive Components

1310nm Polarization Maintaining Patch-cord

Key Features

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

Applications

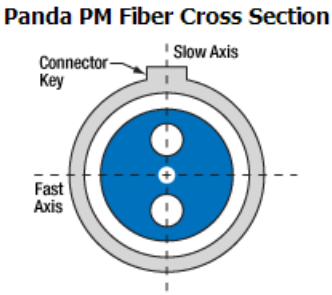
- Fiber Laser
- Fiber Instruments
- Fiber I/O Port
- Optical Transmitters &Transceivers

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.

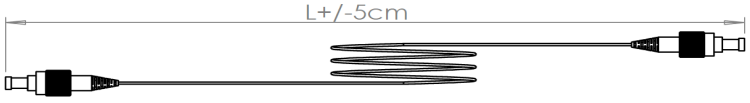
Polarization Maintaining Patch-cord (Polarization Maintaining jumper) have orthogonal “slow” and “fast” axis with different propagation constants. There is little coupling between the polarization modes, therefore, light launched on one axis would propagate on that axis. It features high extinction ratio 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.



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.

For more Info

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1310nm Polarization Maintaining Patch-cord

Performance Specifications

Parameters		Unit		Values	
Connector type		-		FC, SC, LC	
Test wavelength		nm		1310	
Operating Wavelength		nm		1270- 1650	
Cutoff Wavelength		nm		1130-1270	
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	≥40
	APC	dB	≥60	≥55	≥50
Fiber Type		-		Corning PM 13-U25D	
Mode Field Diameter		μm		9 ± 0.5 μm @1300 nm	
Repeatability		dB		≤0.2	
Changeability		dB		≤0.3	
Optical Power		mW		≤300	
Durability		times		≥1000	
Operation Temperature		℃		-5 to 75	
Storage temperature		℃		-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	P13: PM1300 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-13-P-S-P13-90-20-FA

Description: 1310nm Polarization Maintaining patchcord, P grade, PM1300 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.