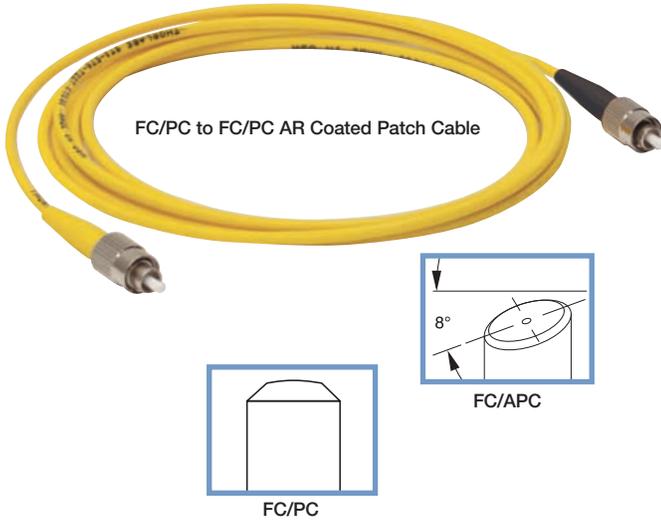


# Single Mode Patch Cables: AR Coated

**NEW**  
products



### Features

- Ideal for Fiber to Free-Space Applications
- One AR-Coated FC/PC Connector Maximizes Return Loss
- One FC/PC or FC/APC Uncoated Connector
- Connectors Feature 2 mm Narrow Keys
- SMF-28e+ Fiber
- AR Coating:  $R < 0.5\%$  at One of Two Wavelengths
  - $1310 \pm 100$  nm
  - $1550 \pm 100$  nm
- $\varnothing 3$  mm Yellow Furcation Tubing
- Insertion Loss
  - FC/PC: 0.3 dB (Typical)
  - FC/APC: 0.2 dB (Typical)
- Return Loss (Fiber-to-Fiber Uncoated Connector)
  - FC/APC: 60 dB (Typical)
- Length Tolerance:  $+7.5/-0$  cm

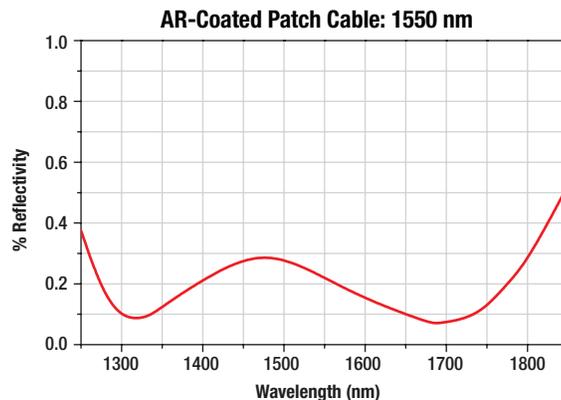
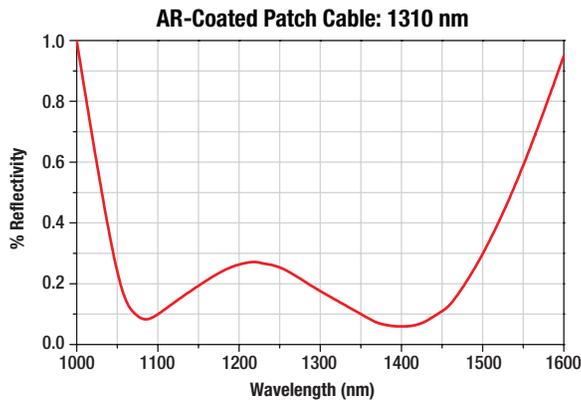
These are our stock AR-coated fiber patch cables with an AR coated FC/PC connector on one end and either an uncoated FC/PC or FC/APC connector on the other end. The FC/PC connector with the black boot is AR coated for either 1310 nm or 1550 nm, making these cables ideal for fiber to free-space applications. The other connector is uncoated. Note that the AR-coated end is meant for free-space applications (e.g., collimation) and will be damaged if it comes into contact with another connector tip. All of the cables on this page feature  $\varnothing 3$  mm furcation tubing, which provides Kevlar threads within the tubing to protect the fiber optic.

### Fiber to Free-Space Return Loss Example

The P1-SMF28E-1-15 has an AR coating centered at 1550 nm. From the typical 1550 nm AR coating plot below, the reflectivity of the connectorized end at 1550 nm is 0.22%. Hence

$$\text{Return Loss} = 10\log(1/0.0022)$$

This results in a return loss of 26.6 dB at 1550 nm. In comparison, an uncoated FC/PC fiber would have a return loss of approximately 14.0 dB.



FIBER	OPERATING $\lambda$	CUTOFF $\lambda$	MFD	CLADDING	NA
SMF-28e+ (Page 1023)	1260 – 1620 nm	<1260 nm	$9.2 \pm 0.4 \mu\text{m}$ (@1310 nm) $10.4 \pm 0.5 \mu\text{m}$ (@1550 nm)	$125 \pm 0.7 \mu\text{m}$	0.14

ITEM #	AR COATING	AR-COATED CONNECTOR	CONNECTOR	UNCOATED LENGTH	\$	£	€	RMB
P1-SMF28E-FC-1-13	1310 nm	FC/PC	FC/PC	1 m	\$ 88.00	£ 63.36	€ 76.56	¥ 701.36
P1-SMF28E-FC-1-15	1550 nm	FC/PC	FC/PC	1 m	\$ 88.00	£ 63.36	€ 76.56	¥ 701.36
P5-SMF28E-FC-1-13	1310 nm	FC/PC	FC/APC	1 m	\$ 93.30	£ 67.18	€ 81.17	¥ 743.60
P5-SMF28E-FC-1-15	1550 nm	FC/PC	FC/APC	1 m	\$ 93.30	£ 67.18	€ 81.17	¥ 743.60