

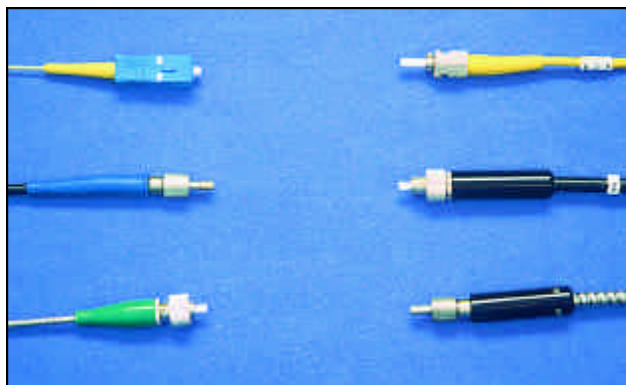


OZ Optics

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CONNECTORS, PATCHCORDS, BULKHEAD RECEPTACLES & SLEEVE THRU ADAPTORS



OZ Optics produces high quality fiber optic patchcords using a variety of commercially available connectors and fibers. These patchcords offer low insertion losses, and excellent repeatability. Patchcords can be manufactured to any specified length. An array of cable materials are available, including unjacketed fiber, 0.9mm outside diameter (O.D) loose tube buffer, 3mm O.D kevlar reinforced PVC jacketing, 3mm armored cabling, and 5.0mm heavy duty armored cabling.

OZ Optics offers a variety of multimode (MM) fiber types, including telecommunication standard Graded Index (GI) fibers (50/125, 62.5/125 and 100/140 fiber sizes), and step index (SI) fused silica core fibers for high power applications (10 to 1000 micron core sizes). Multimode fibers are designed to operate well over a wide wavelength range. Their transmission range depends on the dopants used. There are low OH- fibers, which are optimized to either transmit well from 380nm to over 1600nm (IRVIS type), or high OH- fibers that transmit well from 280nm to 900nm (UVVIS type). Fibers that work at wavelengths below 280nm and above 1600nm are available on request.

Singlemode (SM) fibers are available for a variety of wavelengths, ranging from 320nm to 1550nm as well as standard telecommunication fibers. They typically have a 99% numerical aperture (NA) of about 0.13. Higher NA singlemode fibers are available for certain special applications. When ordering singlemode fibers please specify the wavelength it will be used for. Singlemode fiber designed for 1300nm will not be singlemode at 633nm. Singlemode fiber designed for 488nm will work at 633nm with only slightly higher losses, but at 700nm the losses are too high.

A large assortment of fiber types are available from stock. OZ Optics also offers custom cabling services for customer provided fibers. Please read our Standard Tables data sheet for available fiber types.

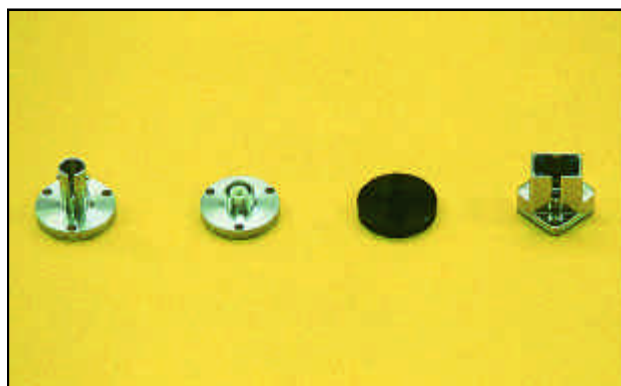
Patchcords can be terminated with NTT-FC, SC, AT&T-ST, LC, and SMA connectors, as well as other connector types. FC connectors are highly recommended for both singlemode and multimode use. They offer the highest precision and repeatability. SMA connectors are used mainly for very large core fibers and **High Power** applications.

FC connectors with Super PC and angle polished (APC) endfaces are available to minimize back-reflection. Typical backreflection levels are 45dB for Super PC connectors, and 60dB for APC connectors. FC connectors for SM fibers with ferrule hole sizes of 79, 80, 81, 82, and 83 microns are available to accommodate small cladding size fibers. FC compatible connectors are also the connector of choice for polarization maintaining fibers. Extinction ratios of 30dB are achievable. See the data sheet entitled *Polarization Maintaining Connectors and Patchcords* for more information.

Bulkhead sleeve-thru adapters are also available. These devices allow you to connect two patchcords together, or to convert a male connector to a female receptacle. **Flanged bulkhead female receptacles** are also available for attaching angled or flat connectors to other optical devices.

OZ Optics can also provide you with a variety of male connectors, housings, and ferrules, to perform your own terminations. A termination kit is available for this purpose. It contains all the tools necessary to make your own terminations in the field. If you only want a way to make a quick, temporary connection, then a bare fiber adapter can be used.

NOTE: Multimode does not mean a bundle of fibers. Singlemode does not mean a single strand of fiber.



ORDERING INFORMATION

<u>Part Number</u>	<u>Description</u>
MMJ-XY-W-a/b-JD-L	Multimode fiber optic patchcord.
QMMJ-XY-W-a/b-JD-L	High power fused silica multimode fiber optic patchcord.
SMJ-XY-W-a/b-JD-L	Singlemode fiber optic patchcord.
QSMJ-XY-W-a/b-JD-L	High power fused silica singlemode fiber optic patchcord.
PMJ-XY-W-a/b-JD-L-A	Polarization maintaining fiber optic patchcord.
QPMJ-XY-W-a/b-JD-L-A	High power fused silica polarization maintaining fiber optic patchcord.
SMPC-03	FC style sleeve-thru adapters with 2.14mm wide keyway.
PMPC-03	Polarization maintaining FC style sleeve-thru adapters with 2.06mm keyway.
BULK-0X-F	Sleeve-thru connector adapters.
HPLC-NTT/FC-SM (or PM)	Flanged bulkhead FC receptacle. Write SM for singlemode and multimode applications, PM for polarization maintaining applications.
HPLC-NTT/FC-PM-SL3.7	Flanged bulkhead receptacle for Angled NTT-FC/PC connectors
HPLC-ATT/ST-SM	Flanged bulkhead ST receptacle.
HPLC-25-SMA/M	Flanged bulkhead SMA receptacle without stopper.
HPLC-SMA/M	Flanged bulkhead SMA receptacle with stopper.
PMPC-2X-b-JD	FC compatible PM connector, with 2mm pin (Use X=3 for FC, 3S for Super FC).
SMPC-2X-b-JD	SM male connector, with 2mm pin (Use X=3 for FC, 3S for Super FC and 8 for ST).
MMPC-2X-b-JD	MM male connector, with 2mm pin (Use X=3 for FC, 5 for SMA 905 and 8 for ST).
BARE-0X-b	Bare fiber adapter (Use X=3 for FC, and 8 for ST).
OFOC-01-X	Connector termination kit. (Use X=3 for FC, 5 for SMA 905, 8 for ST, and SC for SC).
HEAT-0X-V	Fiber optic connector heater. V indicates the input AC line voltage (120V or 240V)
HEGU-01-V	Fiber optic heat gun. V indicates the input AC line voltage (120V or 240V)

Where: **XY** are the input and output male connector types (1 for a 2mm diameter ferrule, 1A for an angled polished ferrule, 2 for Biconic, 3 for NTT-FC compatible, 3S for Super FC/PC, 3A for Angled PC, 5 for SMA 905, 6 for SMA 906, 8 for AT&T-ST, SC for SC connectors, X for unterminated fiber ends),
W is the operating wavelength of the SM or PM fiber, in nm. For MM fibers only, specify IRVIS for fiber with a 400nm to 1600nm operating range, or UVVIS for fiber with a 240nm to 900nm operating range. See the Standard Tables data sheet for available fibers.
a,b are the fiber core and cladding diameters, in microns, respectively. Ferrule hole sizes for FC connectors are 79, 80, 81, 82, 83, 124, 125, 126, and 127 microns,
F is the type of fiber being used (S for singlemode, M for multimode, P for polarization maintaining fiber);
JD is the fiber jacket type (0.25 or 0.4 for unjacketed fiber, 0.9 for 0.9mm nylon jacketing or loose tubing, 3 for 3mm OD loose tube PVC cable, 3A for 3mm OD armored cable, and 5A for 5mm OD armored cable.),
L is the fiber length in meters,
A is 1 for prealigned and locked PM connectors, 0 for unaligned PM connectors.

Example 1: A customer requires a high power multimode fiber optic patchcord, with a 50 micron core size, and good transmission at 488nm. The patchcord must be 2 meters long, 3mm O.D armored cabled, and with angled FC style connectors on both ends. OZ Optics' part number: QMMJ-3A3A-IRVIS-50/125-3A-2. QMMJ-3A3A-UVVIS-50/125-3A-2 is also valid.

