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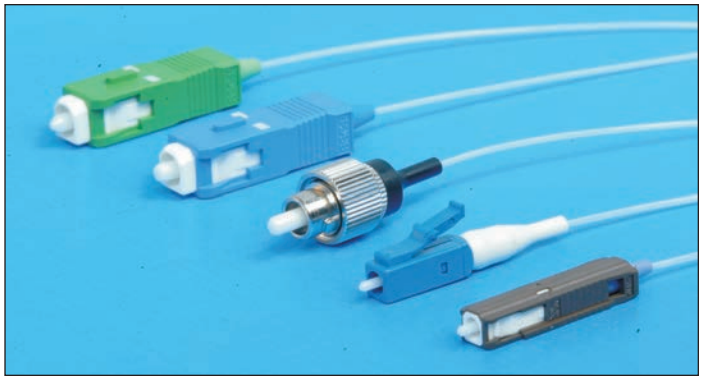
SINGLEMODE OR MULTIMODE FIBER OPTIC PATCHCORDS

Features:

- Low insertion loss < 0.2 dB
- Excellent repeatability
- FC/PC, SC, ST, LC, MU, E2000 termination available
- Custom ferrule termination available
- Designed to meet Telcordia specification
- Large selection of cabling
- Operating wavelengths from 200 nm to 2000 nm
- Two micron to 1500 micron diameter core sizes available
- Low and high numerical aperture fibers
- Dielectric anti-reflection coatings available



Applications:

- High speed (10 Gbs/40 Gbs) Telecommunications
- Interfermetric Sensors
- Integrated Optics
- Fiber Amplifiers
- Laser detection and display
- Materials processing

Product description:

OZ Optics produces high quality fiber optics 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, 0.9 mm outside diameter (O.D) loose tube buffer, 3 mm O.D kevlar reinforced PVC jacketing, 3 mm armored cabling, and 5 mm heavy duty armored cabling as well as 3 mm or 5 mm Stainless Steel armored cablings.

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 1500 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 380 nm to over 1600 nm (IRVIS type), or high OH- fibers that transmit well from 280 nm to 900 nm (UVVIS type). Fibers that work at wavelengths below 280 nm and above 1600 nm are available on request. Singlemode (SM) fibers are available for a variety of wavelengths, ranging from 320 nm to 1550 nm as well 2000 nm 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 what wavelength will will be used for. Singlemode fiber designed for 1300 nm will not be singlemode at 633 nm. Singlemode fiber designed for 488 nm will work at 633 nm with only slightly higher losses, but at 700 nm the losses are too high.

A large assortment of fiber types are available from stock. OZ Optics also offers custom cabling services for customer pro-

vided fibers. Please read our *Standard Tables* data sheet (DTS0079) 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 high 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 backreflection. Typical backreflection levels are 45 dB for Super PC connectors and 60 dB for APC connectors. FC connectors for SM fibers with ferrule hole sizes of 79, 80, and 83 microns are available to accommodate small cladding size fibers. FC connectors are also the connector of choice for polarization maintaining fibers. Extinction ratios of 30 dB are achievable. See data sheet DTS0071 *Polarization Maintaining Fiber Patchcords and Connectors* for more information. For High Power Patchcords, please refer to the data sheet DTS0037 *High Power Fiber Optic Patchcords*.

Ordering Examples For Standard Parts:

OZ Optics manufactures patchcords specifically configured to meet customer requirements. As a result, we offer a large selection of configurations. The following parts are the standard patchcords OZ Optics offers.

Table 1. Singlemode Patchcords

BC#	OZ Part #	Description
11788	QSMJ-3S3S-320-2/125-3-1	1 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
16134	QSMJ-3S3S-320-2/125-3-2	2 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
14824	QSMJ-3S3S-320-2/125-3-5	5 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
17832	QSMJ-3S3S-400-3/125-3-1	1 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
16088	QSMJ-3S3S-400-3/125-3-2	2 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
22550	QSMJ-3S3S-400-3/125-3-5	5 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
10206	QSMJ-3S3S-488-3.5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
8627	QSMJ-3S3S-488-3.5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
11446	QSMJ-3S3S-488-3.5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with super FC/PC connectors on both ends.
14421	SMJ-3U3U-633-4/125-3-1	1 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
14422	SMJ-3U3U-633-4/125-3-2	2 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
16173	SMJ-3U3U-633-4/125-3-5	5 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
14423	SMJ-3U3U-633-4/125-3-10	10 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
42746	SMJ-3U3U-780-5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
24264	SMJ-3U3U-780-5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
31252	SMJ-3U3U-780-5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
19339	SMJ-3S3S-850-5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 850 nm, 5/125 SM fiber patchcord, terminated with super FC/PC connectors on both ends.
9028	SMJ-3S3S-850-5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 850 nm, 5/125 SM fiber patchcord, terminated with super FC/PC connectors on both ends.
25871	SMJ-3U3U-1060-6/125-3-1	1 meter long, 3 mm OD PVC jacketed, 1060 nm, 6/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
16172	SMJ-3U3U-1060-6/125-3-5	5 meter long, 3 mm OD PVC jacketed, 1060 nm, 6/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
8136	SMJ-3U3U-1300/1550-9/125-3-1	1 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
8138	SMJ-3U3U-1300/1550-9/125-3-2	2 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
8140	SMJ-3U3U-1300/1550-9/125-3-5	5 meter long, 3 mm OD PVC jacketed, 1300/ 1550 nm, 9/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.

Table 1. Singlemode Patchcords *(continued)*

BC#	OZ Part #	Description
8137	SMJ-3U3U-1300/1550-9/125-3-10	10 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 SM fiber patchcord, terminated with ultra FC/PC connectors on both ends.
26261	QSMJ-3A3A-320-2/125-3-1	1 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
32294	QSMJ-3A3A-320-2/125-3-2	2 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
42753	QSMJ-3A3A-320-2/125-3-5	5 meter long, 3 mm OD PVC jacketed, 320 nm, 2/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
27488	QSMJ-3A3A-400-3/125-3-1	1 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
32755	QSMJ-3A3A-400-3/125-3-2	2 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
28894	QSMJ-3A3A-400-3/125-3-5	5 meter long, 3 mm OD PVC jacketed, 400 nm, 3/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
2760	QSMJ-3A3A-488-3.5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
7983	QSMJ-3A3A-488-3.5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
29860	QSMJ-3A3A-488-3.5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 488 nm, 3.5/125 high powered SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
8422	SMJ-3A3A-633-4/125-3-1	1 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
8677	SMJ-3A3A-633-4/125-3-2	2 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
18223	SMJ-3A3A-633-4/125-3-5	5 meter long, 3 mm OD PVC jacketed, 633 nm, 4/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
16611	SMJ-3A3A-780-5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
16692	SMJ-3A3A-780-5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
17215	SMJ-3A3A-780-5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 780 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
New	SMJ-3A3A-850-5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 850 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
46349	SMJ-3A3A-850-5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 850 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
New	SMJ-3A3A-850-5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 850 nm, 5/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
21226	SMJ-3A3A-1060-6/125-3-1	1 meter long, 3 mm OD PVC jacketed, 1060 nm, 6/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
21227	SMJ-3A3A-1060-6/125-3-2	2 meter long, 3 mm OD PVC jacketed, 1060 nm, 6/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
20237	SMJ-3A3A-1060-6/125-3-5	5 meter long, 3 mm OD PVC jacketed, 1060 nm, 6/125 SM fiber patchcord, terminated with angled FC/APC connectors on both ends.
8122	SMJ-3A3A-1300/1550-9/125-3-1	1 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 Corning SMF 28e fiber patchcord, terminated with angled FC/APC connectors on both ends.
8124	SMJ-3A3A-1300/1550-9/125-3-2	2 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 Corning SMF 28e fiber patchcord, terminated with angled FC/APC connectors on both ends.
8125	SMJ-3A3A-1300/1550-9/125-3-5	5 meter long, 3 mm OD PVC jacketed, 1300/1550 nm, 9/125 Corning SMF 28e fiber patchcord, terminated with angled FC/APC connectors on both ends.

Table 2. Multimode Patchcords

BC#	OZ Part #	Description
29843	MMJ-3A3A-IRVIS-62.5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
20543	MMJ-3A3A-IRVIS-62.5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
16917	MMJ-3A3A-IRVIS-62.5/125-3-3	3 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
20542	MMJ-3A3A-IRVIS-62.5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
11581	MMJ-3S3S-IRVIS-62.5/125-3-1	1 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
29484	MMJ-3S3S-IRVIS-62.5/125-3-10	10 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
11213	MMJ-3S3S-IRVIS-62.5/125-3-2	2 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
14807	MMJ-3S3S-IRVIS-62.5/125-3-3	3 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
29483	MMJ-3S3S-IRVIS-62.5/125-3-5	5 meter long, 3 mm OD PVC jacketed, 62.5/125 MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
8687	QMMJ-3A3A-IRVIS-50/125-3-1	1 meter long, 3 mm OD PVC jacketed, 50/125 high powered MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
26881	QMMJ-3A3A-IRVIS-50/125-3-2	2 meter long, 3 mm OD PVC jacketed, 50/125 high powered MM IRVIS fiber patchcord, terminated with angled FC/APC connectors on both ends.
26740	QMMJ-3S3S-IRVIS-105/125-3-1	1 meter long, 3 mm OD PVC jacketed, 105/125 high powered MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
48218	QMMJ-3S3S-IRVIS-105/125-3-2	2 meter long, 3 mm OD PVC jacketed, 105/125 high powered MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
39824	QMMJ-3S3S-IRVIS-105/125-3-5	5 meter long, 3 mm OD PVC jacketed, 105/125 high powered MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
11202	QMMJ-3S3S-IRVIS-200/240-3-2	2 meter long, 3 mm OD PVC jacketed, 200/240 high powered MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
10482	QMMJ-3S3S-IRVIS-200/240-3-5	5 meter long, 3 mm OD PVC jacketed, 200/240 high powered MM IRVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
13238	QMMJ-3S3S-UVVIS-10/125-3-1	1 meter long, 3 mm OD jacketed, 10/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
8625	QMMJ-3S3S-UVVIS-10/125-3-2	2 meter long, 3 mm OD jacketed, 10/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
19354	QMMJ-3S3S-UVVIS-10/125-3-5	5 meter long, 3 mm OD jacketed, 10/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
13239	QMMJ-3S3S-UVVIS-25/125-3-1	1 meter long, 3 mm OD jacketed, 25/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
9074	QMMJ-3S3S-UVVIS-25/125-3-2	2 meter long, 3 mm OD jacketed, 25/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.
19779	QMMJ-3S3S-UVVIS-25/125-3-5	5 meter long, 3 mm OD jacketed, 25/125 high powered MM UVVIS fiber patchcord, terminated with super FC/PC connectors on both ends.

Ordering Examples For Custom Parts:

OZ Optics welcomes the opportunity to provide custom designed products to meet your application needs. Customized products do take additional effort, so please expect some differences in the pricing compared to our standard parts list. In particularly, we will need additional time to prepare a comprehensive quotation, and lead times will be longer than for standard products. These points will be carefully explained in your quotation, so your decision will be as well-informed as possible.

Questionnaire For Custom Parts:

1. What wavelength of light will you be transmitting through the fiber?
2. Are you working with a source over 250 mW?
3. Do you need multimode, singlemode, or polarization maintaining fiber?
4. If multimode, do you need graded index or step index fiber?
5. What fiber core/cladding size do you prefer?
6. What should the numerical aperture of the fiber be?
7. How long should the patchcord be, in meters?
8. What type of connectors do you need on each end?
9. What type of cabling do you need?

Description **Part Number**

Fiber Optic Patchcord ***F*MJ-*XY*-*W*-*a/b*-*JD*-*L***

F = Fiber Type:
S = Singlemode fiber
M = Multimode fiber
QS = High power singlemode fiber
QM = High power multimode fiber

X,Y = Input and Output Connector Types:
Refer to Table 6 of the *Standard Tables* Data Sheet DTS0079.

W = Wavelength in nm:
See tables 1 to 5 of the *Standard Tables* for standard singlemode and multimode fiber operating wavelengths. For multimode fibers specify either IRVIS for visible and infrared applications (400–2000 nm), or UVVIS for ultraviolet and visible applications (200–700 nm).

a/b = Fiber core and cladding diameters, in microns: See tables 1 to 5 of the *Standard Tables* for standard fiber sizes.

JD = Jacket Diameter:
3 = 3 mm OD PVC loose tube with Kevlar
3A = 3 mm OD armored
3AS = 3 mm OD stainless steel armored
5A = 5 mm OD armored
5AS = 5 mm OD stainless steel armored
See table 7 of the *Standard Tables* for drawings.

L = Patchcord length, in meters