

Fiber Optic Patch Cable Assembly

Fiber Optic Patch Cable also named as fiber optic jumper, are made from single or multi-fiber cables and pre-terminated at each end with fiber optic connectors. The purpose of a Optical fiber jumper is to connect one or more devices or equipment in a fiber optic network. Fiber optic connectors on the end of fiber patch cord cables can be of various types, including FC, SC, ST, LC, MU, E2000, MTRJ, MPO, SMA, FDDI, DIN, and D4. There are two major application areas of fiber optic patch cables which are network station to outlet and fiber optic patch panels or optical cross connect distribution center.



Compliance

Telcordia GR-326-CORE Generic requirements for Single mode optical connectors and Jumper assemblies.

IEC 874-1 Generic specification for fiber optic connectors and cables

ANSI/TIA-568-C.3, ISO/IEC 11801 2nd Ed., CENELEC EN 50173, UL94V-0

Cable flame resistant rate: OFNR or IEC60332-3 standard

Fiber Specifications

Fiber Type	Max. Attenuation (dB/km)				Min. Overfill Launch Bandwidth (Mhz•km)		Min. Gigabit Ethernet Link Distance (m)		
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	Gigabit		10Gigabit
							850nm	1300nm	850nm
OM1 62.5/125µm	≤2.7	≤0.6	-	-	≥200	≥600	275	550	-
OM2 50/125µm	≤2.5	≤0.7	-	-	≥500	≥500	550	550	-
OM3 50/125µm	≤2.3	≤0.6	-	-	≥1500	≥500	1000	600	300
OM4 50/125µm	≤2.3	≤0.6	-	-	≥3500	≥500	1000	600	550
OS1 9/125µm	-	-	≤0.34	≤0.20	-	-	-	-	-
OS2 9/125µm	-	-	≤0.34	≤0.24	-	-	-	-	-









Cable Specifications

Fiber Mode	Single mode	Multimode
	G652D, G657A1/A2, G657B3	OM1, OM2, OM3 or OM4
Cable Type	Simplex, Duplex Zip-cord, or Multi-cores	
Tight-buffered Fiber Diameter	0.9mm	
Tight-buffered Fiber Coating	PVC or LSZH	
Strength Member	Aramid Yarn	
Cable Diameter	0.9mm, 1.6mm, 2.0mm, 2.4mm, 2.8mm, 3.0mm	
Outer Jacket	PVC or LSZH	
Jacket Color	SM Yellow OM1, OM2 Orange OM3 Aqua OM4 Pink	
Operating Temp.	-20 °C to +70 °C/+85 °C (armored)	
Storage Temp.	-40 °C to +85 °C	
Humidity (FOTP-5)	90-95% at 40°C	
Strength of Coupling Mechanism (FOTP-185)	33 N at 0° for 5 sec	
Cable Retention (FOTP-6)	50 N at 0° for 5 sec.	
Twist (FOTP-36)	15 N at 0° 5 turns, 10 cycles	
Flex (FOTP-1)	0.5 Kg at 25 cm, +90° to -90°, 100 cycles	
















Connector specifications

Item	Single mode			Multimode		
	PC	UPC	APC	OM1	OM2	OM3 or OM4
Insert. Loss	0.25dB Max. (0.10dB typ.)			0.3dB Max. (0.15dB typ.)		
Return Loss	≥ 45 dB	≥ 50 dB	≥ 60 dB	N.A		
Connector Type	SC, FC, ST, LC, MU, MTRJ, E2000, MPO etc					
Ferrule	Zirconia Ferrule (Zro2)			Zirconia Ferrule (Zro2)		
Polishing Type	PC, UPC or APC			PC or UPC		
Durability	500 cycles(0.2 dB max increase), 1000mate/demate cycles					
Pull strength	≥98N	≥98N	≥98N	≥98N		

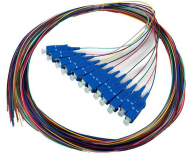
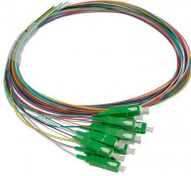


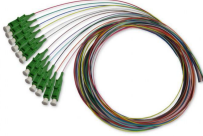



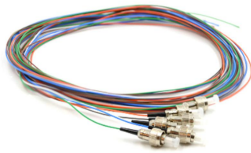
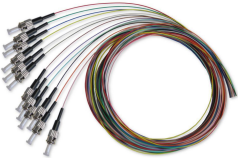
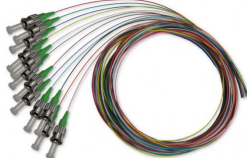
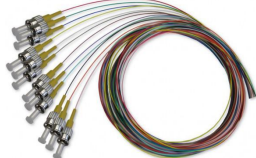
1. Fiber Patch cord pictures

			
SC Patch cord	FC Patch cord	LC Patch cord	ST Patch cord
			
MU Patch cord	MTRJ Patch cord	E2000 Patch cord	MPO Patch cord

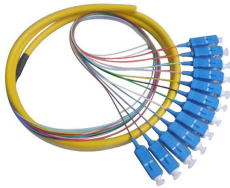


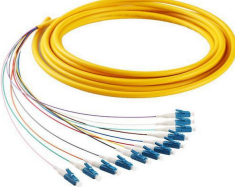

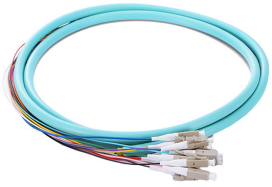



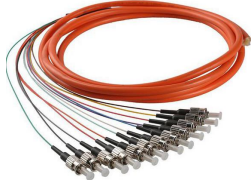
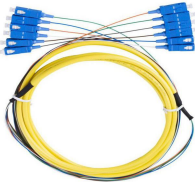

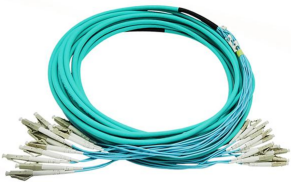
2. Fiber pigtail pictures

		
SC/UPC SM Pigtail	SC/APC SM Pigtail	SC/PC MM Pigtail
		
LC/UPC SM Pigtail	LC/APC SM Pigtail	LC/PC MM Pigtail
		
FC/UPC SM Pigtail	FC/APC SM Pigtail	FC/PC MM Pigtail
		
ST/UPC SM Pigtail	ST/PC MM Pigtail	MU/UPC SM Pigtail
		
MU/APC SM Pigtail	E2000/UPC SM Pigtail	E2000/APC SM Pigtail

3. 12 Colors Multi-cores Fiber Optic Pigtaills

		
12 Colors SC/UPC SM Multi-pigtails	12 Colors SC/APC SM Multi-pigtails	12 Colors SC/PC MM Multi-pigtails
		
12 Colors LC/UPC SM Multi-pigtails	12 Colors LC/APC SM Multi-pigtails	12 Colors LC/PC MM Multi-pigtails
		
12 Colors FC/UPC SM Multi-pigtails	12 Colors FC/APC SM Multi-pigtails	12 Colors FC/PC MM Multi-pigtails
		
12 Colors ST/UPC SM Multi-pigtails	12 Colors ST/APC SM Multi-pigtails	12 Colors ST/PC MM Multi-pigtails

4. Bunchy Fan-out Pigtaills

			
SC/UPC SM Bunchy Fan-out Pigtaills	SC/APC SM Bunchy Fan-out Pigtaills	SC/PC MM Bunchy Fan-out Pigtaills	
			
LC/UPC SM Bunchy Fan-out Pigtaills	LC/PC MM Bunchy Fan-out Pigtaills	LC/PC OM3 Bunchy Fan-out Pigtaills	
			
FC/UPC SM Bunchy Pigtaills	FC/PC MM Bunchy Pigtaills	ST/UPC SM Bunchy Pigtaills	ST/PC MM Bunchy Pigtaills
			
SC-SC SM Breakout Distribution Cable	SC/APC-SC/UPC SM Breakout Cable	LC-LC OM3 Breakout Distribution Cable	