

FIBRE PATCH CORD



PRODUCT OVERVIEW

They comprise two tight buffer fibres housed within a common outer jacket in OM1, OM2, OM3, OM4, OS1, OS2 multi-mode and single mode variants. Both ends are terminated with a high performance hybrid or single type connector comprising of a SC, ST, FC, LC, MTRJ, E2000 connector in simplex and duplex. These are typically not ruggedized, depending on the application and a spring loaded electrical contact housed within LSHF plastic shell possible, making them suitable for internal use.

COMPLIANCE

Telcordia (formerly Bellcore) GR-326-CORE Generic requirements for Single mode optical connectors and Jumper assemblies. IEC 874-1 Generic specification for fibre optic connectors and cables

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

KEY FEATURES

ST, SC, FC, LC, MT-RJ, E2000 connectors

Duplex and Simplex versions niorm and hybrid cord versions

Position A/Position B markings

100% factory transmission tested per ANSI/TIA-568-C.3

Slim-profile boots with durable flexible cable strain relief

Available in 0.9mm, 1.6mm, 2.0mm , 3.0mm sizes

MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Range of Mode	Single or Multimode
Cable Type	Simplex or Duplex Zipcord
Connector Style	SC, FC, ST, LC, MTRJ, E2000
Polish or Ferrule Interface Type	PC, UPC, APC
Cable Diameter	0.9mm, 1.6mm, 2.0mm, 3.0mm
Lengths	Standard & Custom Lengths
Strength Member	Aramid Yarn
Outer Jacket	PVC or LSZH
Cable Assembly Length (<15 meter Tolerance)	0/+100mm
Cable Assembly Length (>15 meter Tolerance)	-0/+10%
Jacket Colour (Multimode: OM1 & Om2)	Orange
Jacket Colour (Multimode: OM3 & Om4)	Aqua
Jacket Colour (Single Mode: OS1 & Os2)	Yellow
Durability	500 cycles(0.2 dB max increase), 1000mate/demate cycles
Operating Temp.	-20 °C to +70 °C/+85 °c (armoured)
Storage Temp.	-40 °C to +85 °C
Ferrule Concentricity	< 1µm, Other Ferrule Concentricity < 1µm

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MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

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

OPTICAL CHARACTERISTICS

Fibre Type	Max. Attenuation (dB/km)				Min. Overfill Launch Bandwidth (Mhz • km)		Min. Gigabit Ethernet Link Distance (m)		
	850nm	1300nm	13010nm	1550nm	850nm	1300nm	Gigabit 850nm	1300nm	10Gigabit 850nm
OM1 62.5/125µm	≤2.7	≤0.6	-	-	≥200	≥600	≤2.7	≤2.7	≤2.7
OM2 50/125µm	≤2.5	≤0.7	-	-	≥500	≥500			
OM3 50/125µm	≤2.3	≤0.6	-	-	≥1500	≥500			
OM4 50/125µm	≤2.3	≤0.6	-	-	≥3500	≥500			
OS1 9/125µm	-	-	≤0.34	≤0.20	-	-			
OS2 9/125µm	-	-	≤0.34	≤0.24	-	-			

OPTICAL PERFORMANCE DATA

Item	Single mode			Multimode		
	PC	UPC	APC	62.5/125	50/125	50/125 10G
Insert. Loss/connector (single fibre)	0.2dB Max. (0.15dB typ.)			0.3dB Max. (0.25dB typ.)		
Return Loss	≥ 45 dB	≥ 50 dB	≥ 60 dB	N.A		
Insert. Loss/MTRJ Connector	0.5dB Max. (0.45dB typ.)			0.5dB Max. (0.45dB typ.)		
Pull strength	≥98N	≥98N	≥98N	≥98N		

TERMINATION SPECIFICATIONS

Geometric Specifications

Radius of Curvature	7-25 mm
Apex Offset	0-50 µm
Radial Fibre Height	-50 to +50 nm
Angular Offset	<0.3 degrees
Fibre Roughness	0-25 nm
Ferrule Roughness	0-50 nm

End Face Defects

Fibre Core	0 nm ²
Mode field diameter	0 nm ²
Ferrule contact zone	0 nm ²
Testing & Inspection	100%

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TERMINATION SPECIFICATIONS

Epoxy

Temperature Coeff. Tg	120
Curing Method	Out Gassed
Residual Epoxy	No Visible Epoxy Ring

Configuration Control

Serialization	Each Cable is Serialized
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ORDERING INFORMATION

LC – LC FIBRE PATCH CORD

LC-LC Singlemode Patch Cord	OS1 (9/125)	OS2 (9/125)
LC/PC-LC/PC 1m Duplex PVC	AFD2140S1L1L1001	AFD2140S2L1L1001
LC/PC-LC/PC 2m Duplex PVC	AFD2140S1L1L1002	AFD2140S2L1L1002
LC/PC-LC/PC 3m Duplex PVC	AFD2140S1L1L1003	AFD2140S2L1L1003
LC/PC-LC/PC 5m Duplex PVC	AFD2140S1L1L1005	AFD2140S2L1L1005
LC/PC-LC/PC 10m Duplex PVC	AFD2140S1L1L1010	AFD2140S2L1L1010
LC/PC-LC/PC 1m Duplex LSZH	AFD2240S1L1L1001	AFD2240S2L1L1001
LC/PC-LC/PC 2m Duplex LSZH	AFD2240S1L1L1002	AFD2240S2L1L1002
LC/PC-LC/PC 3m Duplex LSZH	AFD2240S1L1L1003	AFD2240S2L1L1003
LC/PC-LC/PC 5m Duplex LSZH	AFD2240S1L1L1005	AFD2240S2L1L1005
LC/PC-LC/PC 10m Duplex LSZH	AFD2240S1L1L1010	AFD2240S2L1L1010

LC-LC Multimode Patch Cord	OM1 (62.5/125)	OM2 (50/125)	OM3 (50/125)	OM4 (50/125)
LC/PC-LC/PC 1m Duplex PVC	AFD2140M1L1L1001	AFD2140M2L1L1001	AFD2140M3L1L1001	AFD2140M4L1L1001
LC/PC-LC/PC 2m Duplex PVC	AFD2140M1L1L1002	AFD2140M2L1L1002	AFD2140M3L1L1002	AFD2140M4L1L1002
LC/PC-LC/PC 3m Duplex PVC	AFD2140M1L1L1003	AFD2140M2L1L1003	AFD2140M3L1L1003	AFD2140M4L1L1003
LC/PC-LC/PC 5m Duplex PVC	AFD2140M1L1L1005	AFD2140M2L1L1005	AFD2140M3L1L1005	AFD2140M4L1L1005
LC/PC-LC/PC 10m Duplex PVC	AFD2140M1L1L1010	AFD2140M2L1L1010	AFD2140M3L1L1010	AFD2140M4L1L1010
LC/PC-LC/PC 1m Duplex LSZH	AFD2240M1L1L1001	AFD2240M2L1L1001	AFD2240M3L1L1001	AFD2240M4L1L1001
LC/PC-LC/PC 2m Duplex LSZH	AFD2240M1L1L1002	AFD2240M2L1L1002	AFD2240M3L1L1002	AFD2240M4L1L1002
LC/PC-LC/PC 3m Duplex LSZH	AFD2240M1L1L1003	AFD2240M2L1L1003	AFD2240M3L1L1003	AFD2240M4L1L1003
LC/PC-LC/PC 5m Duplex LSZH	AFD2240M1L1L1005	AFD2240M2L1L1005	AFD2240M3L1L1005	AFD2240M4L1L1005
LC/PC-LC/PC 10m Duplex LSZH	AFD2240M1L1L1010	AFD2240M2L1L1010	AFD2240M3L1L1010	AFD2240M4L1L1010

ORDERING GUIDE

Patch Cord	Type	Outer Jacket	Cable Dia.	Fibre Type	Connector	Polish	Connector	Polish	Length
AFD	1: Simplex	1: PVC	1:0.9mm	OM1	S: SC	1: PC	S: SC	1: PC	1m: 001
		2: LSZH	2:1.6mm	OM2	T: ST	2: UPC	T: ST	2: UPC	2m: 002
	2: Duplex	3: PE	3:2.0mm	OM3	F: FC	3: APC	F: FC	3: APC	3m: 003
			4:3.0mm	OM4	L: LC		L: LC		5m: 005
				OS1	M: MTRJ		M: MTRJ		10m: 010
				OS2	E: E2000		E: E2000		