

# FIBRE PATCH CORD

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/EIA 568.3-D, ISO/IEC 11801 2nd Ed., CENELEC EN 50173, UL94V-0

Cable flame resistant rate: OFNR or IEC60332-3 standard

## KEY FEATURES

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

Duplex and Simplex versions uniform and hybrid cord versions

Position A/Position B markings

100% factory transmission tested per ANSI/TIA/EIA 568.3-D

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/Violet
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
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

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## OPTICAL CHARACTERISTICS

Fibre 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
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	-	-	-	-	-

## 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 <sup>2</sup>
Mode field diameter	0 nm <sup>2</sup>
Ferrule contact zone	0 nm <sup>2</sup>
Testing & Inspection	100%
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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## LC – E2000 FIBRE PATCH CORD

LC-E2000 Singlemode Patch Cord	OS1 (9/125)	OS2 (9/125)
LC/PC-E2000/PC 1m Duplex PVC	332-140S1L1E1001	332-140S2L1E1001
LC/PC-E2000/PC 2m Duplex PVC	332-140S1L1E1002	332-140S2L1E1002
LC/PC-E2000/PC 3m Duplex PVC	332-140S1L1E1003	332-140S2L1E1003
LC/PC-E2000/PC 5m Duplex PVC	332-140S1L1E1005	332-140S2L1E1005
LC/PC-E2000/PC 10m Duplex PVC	332-140S1L1E1010	332-140S2L1E1010
LC/PC-E2000/PC 1m Duplex LSZH	332-240S1L1E1001	332-240S2L1E1001
LC/PC-E2000/PC 2m Duplex LSZH	332-240S1L1E1002	332-240S2L1E1002
LC/PC-E2000/PC 3m Duplex LSZH	332-240S1L1E1003	332-240S2L1E1003
LC/PC-E2000/PC 5m Duplex LSZH	332-240S1L1E1005	332-240S2L1E1005
LC/PC-E2000/PC 10m Duplex LSZH	332-240S1L1E1010	332-240S2L1E1010

LC-E2000 Multimode Patch Cord	OM1 (62.5/125)	OM2 (50/125)	OM3 (50/125)	OM4 (50/125)
LC/PC-E2000/PC 1m Duplex PVC	332-140M1L1E1001	332-140M2L1E1001	332-140M3L1E1001	332-140M4L1E1001
LC/PC-E2000/PC 2m Duplex PVC	332-140M1L1E1002	332-140M2L1E1002	332-140M3L1E1002	332-140M4L1E1002
LC/PC-E2000/PC 3m Duplex PVC	332-140M1L1E1003	332-140M2L1E1003	332-140M3L1E1003	332-140M4L1E1003
LC/PC-E2000/PC 5m Duplex PVC	332-140M1L1E1005	332-140M2L1E1005	332-140M3L1E1005	332-140M4L1E1005
LC/PC-E2000/PC 10m Duplex PVC	332-140M1L1E1010	332-140M2L1E1010	332-140M3L1E1010	332-140M4L1E1010
LC/PC-E2000/PC 1m Duplex LSZH	332-240M1L1E1001	332-240M2L1E1001	332-240M3L1E1001	332-240M4L1E1001
LC/PC-E2000/PC 2m Duplex LSZH	332-240M1L1E1002	332-240M2L1E1002	332-240M3L1E1002	332-240M4L1E1002
LC/PC-E2000/PC 3m Duplex LSZH	332-240M1L1E1003	332-240M2L1E1003	332-240M3L1E1003	332-240M4L1E1003
LC/PC-E2000/PC 5m Duplex LSZH	332-240M1L1E1005	332-240M2L1E1005	332-240M3L1E1005	332-240M4L1E1005
LC/PC-E2000/PC 10m Duplex LSZH	332-240M1L1E1010	332-240M2L1E1010	332-240M3L1E1010	332-240M4L1E1010

## ORDERING GUIDE

Patch Cord	Outer Jacket	Cable Dia.	Fibre Type	Connector	Polish	Connector	Polish	Length
331: Simplex	1: PVC	1:0.9mm	OM1	S: SC	1: PC	S: SC	1: PC	1m: 001
332: Duplex	2: LSZH	2:1.6mm	OM2	T: ST	2: UPC	T: ST	2: UPC	2m: 002
	3: PE	3:2.0mm	OM3	F: FC	3: APC	F: FC	3: APC	3m: 003
	3: Arm./PVC	4:3.0mm	OM4	L: LC	4: APC 8°	L: LC	4: APC 8°	5m: 005
	4: Arm./LSZH		OM5	M: MTRJ		M: MTRJ		10m: 010
			OS1	E: E2000		E: E2000		
			OS2 : G652.D/G657.A1					
			7A1 = G657.A1					
			7A2 = G657.A2					
			7B2 = G657.B2					
			7B3 = G657.B3					
			500 = G655					