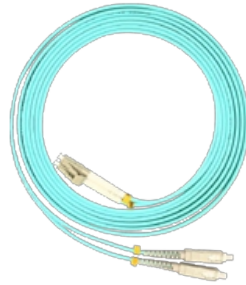


FIBRE PATCH CORD



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 niform 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 |

FIBRE PATCH CORD

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% |

FIBRE PATCH CORD

TERMINATION SPECIFICATIONS

| | |
|------------------------------|--------------------------|
| Epoxy | |
| Temperature Coeff. Tg | 120 |
| Curing Method | Out Gassed |
| Residual Epoxy | No Visible Epoxy Ring |
| Configuration Control | |
| Serialization | Each Cable is Serialized |

ORDERING INFORMATION

SC – LC FIBRE PATCH CORD

| SC-LC Singlemode Patch Cord | OS1 (9/125) | OS2 (9/125) |
|-----------------------------|------------------|------------------|
| SC/PC-LC/PC 1m Duplex PVC | AFD2140S1S1L1001 | AFD2140S2S1L1001 |
| SC/PC-LC/PC 2m Duplex PVC | AFD2140S1S1L1002 | AFD2140S2S1L1002 |
| SC/PC-LC/PC 3m Duplex PVC | AFD2140S1S1L1003 | AFD2140S2S1L1003 |
| SC/PC-LC/PC 5m Duplex PVC | AFD2140S1S1L1005 | AFD2140S2S1L1005 |
| SC/PC-LC/PC 10m Duplex PVC | AFD2140S1S1L1010 | AFD2140S2S1L1010 |
| SC/PC-LC/PC 1m Duplex LSZH | AFD2240S1S1L1001 | AFD2240S2S1L1001 |
| SC/PC-LC/PC 2m Duplex LSZH | AFD2240S1S1L1002 | AFD2240S2S1L1002 |
| SC/PC-LC/PC 3m Duplex LSZH | AFD2240S1S1L1003 | AFD2240S2S1L1003 |
| SC/PC-LC/PC 5m Duplex LSZH | AFD2240S1S1L1005 | AFD2240S2S1L1005 |
| SC/PC-LC/PC 10m Duplex LSZH | AFD2240S1S1L1010 | AFD2240S2S1L1010 |

| SC-LC Multimode Patch Cord | OM1 (62.5/125) | OM2 (50/125) | OM3 (50/125) | OM4 (50/125) |
|-----------------------------|------------------|------------------|------------------|------------------|
| SC/PC-LC/PC 1m Duplex PVC | AFD2140M1S1L1001 | AFD2140M2S1L1001 | AFD2140M3S1L1001 | AFD2140M4S1L1001 |
| SC/PC-LC/PC 2m Duplex PVC | AFD2140M1S1L1002 | AFD2140M2S1L1002 | AFD2140M3S1L1002 | AFD2140M4S1L1002 |
| SC/PC-LC/PC 3m Duplex PVC | AFD2140M1S1L1003 | AFD2140M2S1L1003 | AFD2140M3S1L1003 | AFD2140M4S1L1003 |
| SC/PC-LC/PC 5m Duplex PVC | AFD2140M1S1L1005 | AFD2140M2S1L1005 | AFD2140M3S1L1005 | AFD2140M4S1L1005 |
| SC/PC-LC/PC 10m Duplex PVC | AFD2140M1S1L1010 | AFD2140M2S1L1010 | AFD2140M3S1L1010 | AFD2140M4S1L1010 |
| SC/PC-LC/PC 1m Duplex LSZH | AFD2240M1S1L1001 | AFD2240M2S1L1001 | AFD2240M3S1L1001 | AFD2240M4S1L1001 |
| SC/PC-LC/PC 2m Duplex LSZH | AFD2240M1S1L1002 | AFD2240M2S1L1002 | AFD2240M3S1L1002 | AFD2240M4S1L1002 |
| SC/PC-LC/PC 3m Duplex LSZH | AFD2240M1S1L1003 | AFD2240M2S1L1003 | AFD2240M3S1L1003 | AFD2240M4S1L1003 |
| SC/PC-LC/PC 5m Duplex LSZH | AFD2240M1S1L1005 | AFD2240M2S1L1005 | AFD2240M3S1L1005 | AFD2240M4S1L1005 |
| SC/PC-LC/PC 10m Duplex LSZH | AFD2240M1S1L1010 | AFD2240M2S1L1010 | AFD2240M3S1L1010 | AFD2240M4S1L1010 |

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 | | |