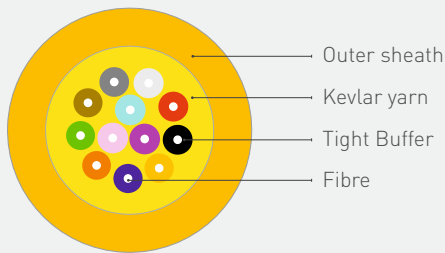
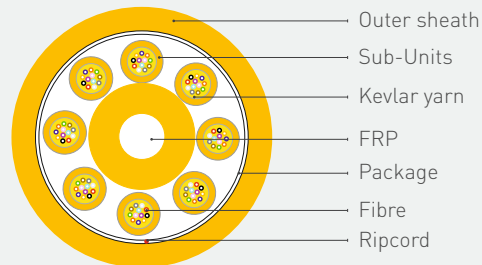


PRE-TERMINATED BREAK OUT PATCH CORD

Norden Pre- Terminated Break Out patch cord comprises tight buffer fibre 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 consisting of a SC, ST, FC, LC, MTRJ, E2000 connector in simplex and duplex. Using pre-terminated patch cords can simplify the installation process and reduce the need for on-site termination, making them a convenient choice for various networking applications.



4F – 24F Cable Construction



36F – 432F Cable Construction

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

Position A/Position B markings

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

Slim-profile boots with durable flexible cable strain relief

MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

| | |
|---|---|
| Range of Mode | Single or Multimode |
| Connector Style | SC, FC, ST, LC, MTRJ, E2000 |
| Polish or Ferrule Interface Type | PC, UPC, APC |
| Lengths | Standard & Custom Lengths |
| Strength Member | Kevlar Yarn |
| Cable Assembly Length (<15 meter Tolerance) | -0/+100mm |
| Cable Assembly Length (>15 meter Tolerance) | -0/+10% |
| Durability | 500 cycles(0.2 dB max increase), 1000mate/demate cycles |
| Installation Temperature range | -10°C to +60°C |

PRE-TERMINATED BREAK OUT PATCH CORD

MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

| | | | |
|---|------------|---|------|
| Operation and transport temperature | | -20°C to +75°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 | |
| Central Strength Member Material | | FRP | |
| Subunit Material | | LSZH | |
| Min Bending Radius(mm) | | Long term | 10D |
| | | Short term | 20D |
| Tensile Strength(N) | 4F – 24F | Long term | 800 |
| | | Short term | 1200 |
| | 36F – 432F | Long term | 500 |
| | | Short term | 1000 |
| Crush Load (N/100mm) | 4F – 24F | Long term | 100 |
| | | Short term | 500 |
| | 36F – 432F | Long term | 500 |
| | | Short term | 1500 |

CABLE CONSTRUCTION DETAILS

| | | 4F-24F | | | | | | | | |
|---|----------|----------|-----|-----|-----|------|------|------|------|-------|
| Fibre count (Tight Buffer Construction) | | 4F | 6F | 8F | 12F | 24F | | | | |
| | | 36F-432F | | | | | | | | |
| Number of fibres | | 36F | 48F | 72F | 96F | 144F | 192F | 216F | 288F | 432F |
| Number of fibres per tube | | 12 | 12 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Number of loose tubes | | 3 | 4 | 3 | 4 | 6 | 8 | 9 | 12 | 18 |
| Number of fillers | | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 6 |
| Central Strength Member | Size | 1.0mm | | | | | | | | 1.4mm |
| Sub-Units | Diameter | 2.9mm | | | | | | | | |

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 | | |

PRE-TERMINATED BREAK OUT PATCH CORD

OPTICAL CHARACTERISTICS

| Fibre Type | | Unit | OS1 | | OS2 | | OM1 | | OM2 | | OM3 | | OM4 | |
|---------------------------------------|--------|-----------|-------------|-------|----------------|-------|-------------|-------|-------------|-------|----------------|------|----------------|------|
| Condition | | nm | 1310 | 1550 | 1310 | 1550 | 850 | 1300 | 850 | 1300 | 850 | 1300 | 850 | 1300 |
| Attenuation | | dB/km | ≤0.36 | ≤0.23 | ≤0.34 | ≤0.22 | ≤3.0 | ≤1.0 | ≤3.0 | ≤1.0 | ≤3.0 | ≤1.0 | ≤3.0 | ≤1.0 |
| Dispersion | 1550nm | Ps(nm*km) | ..... | ..... | ≤18 |  | ..... | ..... | ..... | ..... | Dispersion | | Dispersion | |
| | 1625nm | Ps(nm*km) | ..... | ..... | ≤22 |  | ..... | ..... | ..... | ..... |  |  |  |  |
| Bandwidth | 850nm | MHz.KM | ..... | ..... | ..... | ..... | ≥160 | | ≥400 | | Bandwidth | | Bandwidth | |
| | 1300nm | MHz.KM | ..... | ..... | ..... | ..... | ≥500 | | ≥800 | | | | | |
| Zero dispersion wavelength | | nm | 1300-1324 | | ≥1302 ≤1322 |  | ..... | ..... | ..... | ..... | ≥1295 ≤1320 | | ≥1295 ≤1320 | |
| Zero dispersion slope | | nm | ≤0.092 | | ≤0.091 |  | ..... | ..... | ..... | ..... | ..... |  | ..... |  |
| Attenuation uniformity | | dB/km | ≤0.01 | | ≤0.01 |  | ..... | ..... | ..... | ..... | ..... |  | ..... |  |
| Core diameter | | um | ..... |  | ..... |  | 50+/-1.0 | | 62.5+/-2.5 | | 50+/-1.0 | | 50+/-1.0 | |
| Cladding diameter | | um | 125.0+/-0.1 | | 125.0+/-0.1 | | 125.0+/-0.1 | | 125.0+/-0.1 | | 125.0+/-0.1 | | 125.0+/-0.1 | |
| Cladding non-circularity | | % | ≤1.0 | | ≤1.0 | | ≤1.0 | | ≤1.0 | | ≤1.0 | | ≤1.0 | |
| Coating diameter | | um | 242+/-7 | | 242+/-7 | | 242+/-7 | | 242+/-7 | | 242+/-7 | | 242+/-7 | |
| Coating/chaffinch concentricity error | | um | ≤12.0 | | ≤12.0 | | ≤12.0 | | ≤12.0 | | ≤12.0 | | ≤12.0 | |
| Coating non circularity | | % | ≤6.0 | | ≤6.0 | | ≤6.0 | | ≤6.0 | | ≤6.0 | | ≤6.0 | |
| Core/cladding concentricity error | | um | ≤0.6 | | ≤0.6 | | ≤1.5 | | ≤1.5 | | ≤1.5 | | ≤1.5 | |
| Curl(radius) | | um | ≤4 | | ≤4 |  | ..... |  | ..... |  | ..... |  | ..... |  |

TERMINATION SPECIFICATIONS

| Geometric Specifications | |
|--------------------------|--------------------------|
| Radius of Curvature | 7-25 mm |
| Apex Offset | 0-50 um |
| 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% |
| Epoxy | |
| Temperature Coeff .Tg | 120 |
| Curing Method | Out Gassed |
| Residual Epoxy | No Visible Epoxy Ring |
| Configuration Control | |
| Serialization | Each Cable is Serialized |

PRE-TERMINATED BREAK OUT PATCH CORD

ORDERING GUIDE

| Pre-Terminated Patch Cord | Patch Cord Type | Number of Total Fibre cores | Connector Type | Connector Type Side -A | Polish |
|---------------------------|--------------------------------|---|-------------------------|--|--|
| NC14 | A: Armoured N: Non-Armoured | XXX * In the case of duplex, the number of connectors will be half of the total number of fibre cores. | 1: Simplex 2: Duplex | L:LC S:SC F:FC T:ST E: E2000 | 1: PC 2: UPC 3: APC 4: APC 8° |

| Connector Type Side -B | Polish | Patch cord overall Dia | Breakout Dia | Outer Jacket | Fibre Type | Length | Colour(XX) |
|--|--|---|------------------------|---|---|--------|---|
| L:LC S:SC F:FC T:ST E: E2000 | 1: PC 2: UPC 3: APC 4: APC 8° | 1: 4F-6F (5.0±0.3mm) 2: 8F (5.5±0.3 mm) 3: 12F (6.3±0.3 mm) 4: 24F (8.3±0.3 mm) 5: 36F-96F (9.0 mm) 6: 144F (12.0 mm) 7: 192F (14.0 mm) 8: 216F-288F (18.0 mm) 9: 432F (20.8 mm) | 1: 0.9 mm 2: 2.0 mm | 1:PVC 2: LSZH 3: PE 4:OFNR L: LSZH (IEC 60331) | OS2:G652.D 7A1: G657.A1 7A2:G657.A2 500:G655 OM2:OM2 OM3:OM3 OM4:OM4 OM5:OM5 | XXX | YL:Yellow (SM) AQ:Aqua (OM3) MG:Magenta (OM4) LG: Lime Green (OM5) |

For Example:

NC14 — N 144 2 L 1 L 1 6 1 2 OM3 100 — XX

NC14-N1442L1L1612OM3100- AQ: 144 Core (72 Duplex), LC/PC-LC/PC MM OM3, 0.9mm Breakout dia, 12.0mm over all dia , Pre-Terminated Breakout patch cord,LSZH 100 Meter.