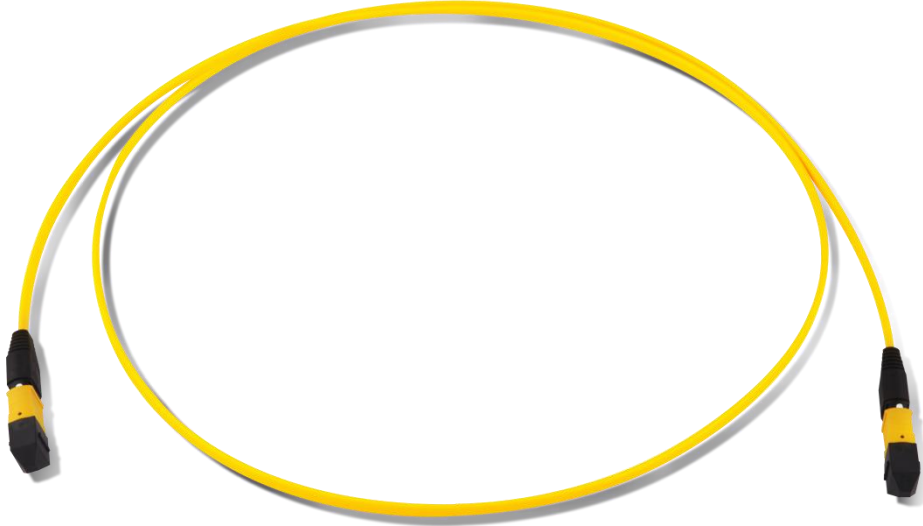


MPO/MTP Trunk Cable Specification



Application

- 1.Data communication network.
- 2.Optical System Access network.
- 3.Storage area networking fiber channel.
- 4.High density architectures.

Features

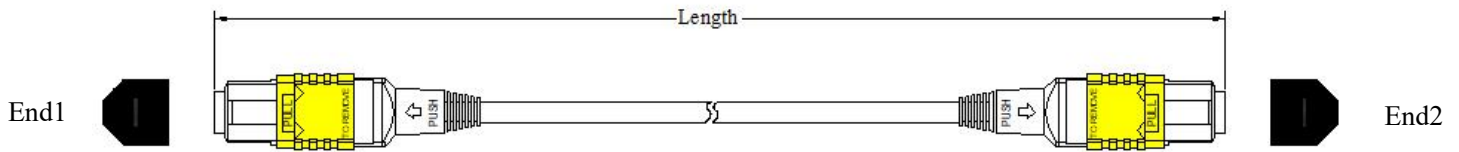
- 1.100% pre-terminated and tested in factory to ensure transfer performance.
- 2.Rapid configuration and networking, reduce installation time.
- 3.Supports 40G and 100G network applications.
- 4.Cable Jacket material: LSZH, OFNR, OFNP available.
- 5.Supports up to 12F, 24F, 48F, 72F, 96F, 144F, customized products are available.

Connector Types

| Type | Reference | Note | |
|------|-------------|-------------|---|
| MPO | IEC 61754-7 | Single mode | APC: Green connectors (Standard) APC: Yellow connectors (Elite) |
| | | Multimode | PC: Aqua Connectors |
| MTP | IEC 61754-7 | Single mode | APC: Green connectors (Standard) APC: Yellow connectors (Elite) |
| | | Multimode | PC: Aqua Connectors |

Dimensional Diagrams

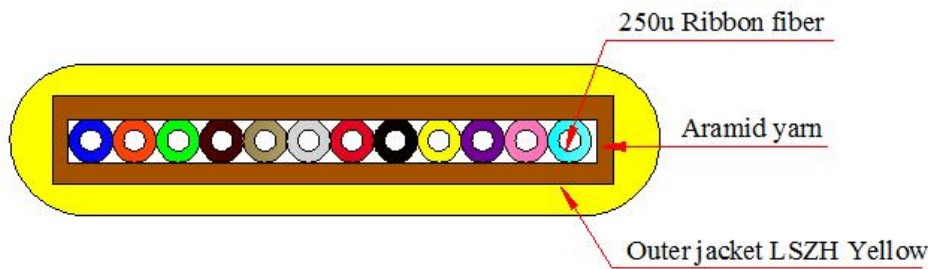
1. MPO/MTP Trunk Cable (Method A, Method B, Method C).



Patch cord versions

| Jumper tolerance requirement | |
|------------------------------|--------------------------|
| Overall length (L) (M) | length of tolerance (CM) |
| $0 < L \leq 20$ | +10/-0 |
| $20 < L \leq 40$ | +15/-0 |
| $L > 40$ | +0.5%L/-0 |

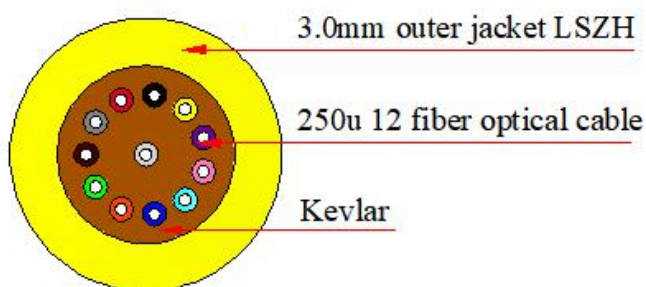
Cable Structure



Cable Parameters

| Cable Count | Out sheath Diameter (MM) | Weight (KG) | Minimum allowable Tensile Strength (N) | | minimum allowable Crush Load (N/100mm) | | Minimum Bending Radius (MM) | | Storage temperature (°C) |
|-------------|---------------------------------|-------------|--|-----------|--|-----------|-----------------------------|-----------|--------------------------|
| | | | short term | long term | short term | long term | short term | long term | |
| 12 | $(5.1 \pm 0.3) * (2.3 \pm 0.3)$ | 11.6 | 150 | 80 | 500 | 200 | 20D | 10D | -20 ~ +70 |

Cable Structure



Cable Parameters

| Fiber account | OD(mm) | Nominal Weight (kg/km) | Max.tensile Strength(N) | | Max.Crush Resistance (N/100mm) | | Min.Bending Radius(mm) | |
|---------------|----------|------------------------|-------------------------|-----------|--------------------------------|-----------|------------------------|--------|
| | | | Short-term | Long-term | Short-term | Long-term | Dynamic | Static |
| 12 | 3.0±0.15 | 7.0 | 180 | 90 | 500 | 150 | 20D | 10D |

Optical Characteristics

| Item | Parameter | | | | Reference |
|----------------|------------------------------|------------------------------|------------------------------|------------------------------|----------------|
| | Single mode | | Multimode | | |
| | Standard | Elite | Standard | Elite | |
| Insertion loss | Typical≤0.30dB Max≤0.75dB | Typical≤0.15dB Max≤0.35dB | Typical≤0.50dB Max≤0.25dB | Typical≤0.10dB Max≤0.35dB | IEC 61300-3-34 |
| Return loss | ≥ 50dB (PC) ≥ 60dB (APC) | ≥ 55dB (PC) ≥ 65dB (APC) | ≥30dB(PC) | ≥30dB(PC) | IEC 61300-3-6 |

End-Face Geometry

| Ferrule parameter | | IEC-61300-3-30 | |
|-------------------|----------|----------------|---------|
| | | Minimum | Maximum |
| ROC | ROC-X: | 2000mm | ∞ |
| | ROC-Y: | 50mm | ∞ |
| Angle | Angle-X: | -0.2° | 0.2° |
| | Angle-Y: | PC | 0.2° |
| | | APC | 7.85° |
| Fiber Hight: | | 1000nm | 3500nm |
| Max.DH.All: | | -300nm | 300nm |
| DH.Adj: | | -300nm | 300nm |
| DH.Ave Fiber: | | -300nm | 300nm |
| Core Dip: | MM | -200nm | 300nm |
| | SM | N/A | N/A |
| Ferrule height | | 7.9mm | 8.05mm |

End-Face Quality (SM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|------------|-----------|---------|---------------------|
| A: Core | 0 to 25 | None | None | IEC 61300-3-35:2015 |
| B: Cladding | 25 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |

End-Face Quality (MM)

| Zone | Range (μm) | Scratches | Defects | Reference |
|--------------------|------------|-----------|---------|---------------------|
| A: Core | 0 to 65 | None | None | IEC 61300-3-35:2015 |
| B: Cladding | 65 to 115 | None | None | |
| C: Adhesive | 115 to 135 | None | None | |
| D: Contact | 135 to 250 | None | None | |
| E: Rest of ferrule | | None | None | |

Mechanical Characteristics

| Test | Conditions | Reference |
|--------------------------------|--|----------------|
| Endurance | 500 matings | IEC 61300-2-2 |
| Vibration | Frequency: 10 to 55Hz, Amplitude: 0.75mm | IEC 61300-2-1 |
| Cable retention | 400N (main cable); 50N (connector part) | IEC 61300-2-4 |
| Strength of coupling mechanism | 80N for 2 to 3mm cable | IEC 61300-2-6 |
| Cable torsion | 15N for 2 to 3mm cable | IEC 61300-2-5 |
| Fall | 10 drops, 1m drop height | IEC 61300-2-12 |
| Static lateral load | 1N for 1h (main cable); 0.2N for 5min (ranch part) | IEC 61300-2-42 |
| Cold | -25°C, 96h duration | IEC 61300-2-17 |
| Dry heat | +70°C, 96h duration | IEC 61300-2-18 |
| Change of temperature | -25°C to +70°C, 12 cycles | IEC 61300-2-22 |
| Humidity | +40°C at 93%, 96h duration | IEC 61300-2-19 |