

DROPCORE 1 CORE, 3 SELING

1 CORE, 1 MESSENGER, 2 STEEL STRENGTH MEMBER, 1000M

Cable description

The optical fiber unit is positioned in the centre. two steel wires are placed at the two sides. a single steel wire as the additional strength member is also applied. Then, the cable is completed with a black color LSZH sheath.



Application

Internal FTTH applications horizontal and riser, especially suitable for the last leg in FTTH systems.

Characteristics

- * Special low-bend-sensitivity fiber provides high bandwidth and excellent communication transmission Property
- * Simple structure, light weight and high practicability
- * Novel flute design, easily strip and splice, simplify the installation and maintenance

Optical fiber in cable (ITU-G.657A1)

Optical properties of the fiber are achieved through a germanium doped silica based core with a pure silica cladding which meets ITU-T G657A1, UV curable acrylate protective coating is applied over the glass cladding to provide the necessary maximum fiber lifetime.

Geometrical and optical characteristics of fiber in cable as the following table :

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Specifications

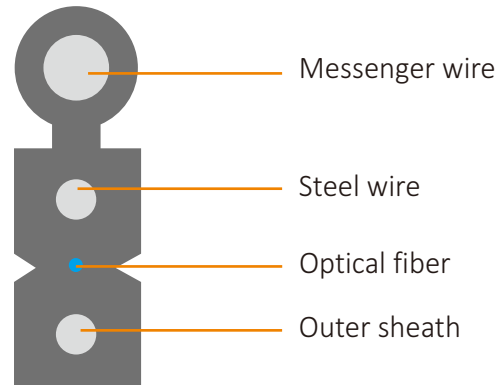
| Category | Items | Unit | Description | |
|-----------------------------|--|-------------------------|---------------|--------------|
| | | | Before cabled | After cabled |
| Optical characteristics | Attenuationat 1310nm | dB/km | ≤ 0.36 | ≤0.40 |
| | Attenuationat 1550nm | dB/km | ≤ 0.22 | ≤0.30 |
| | Zero dispersion wavelength | nm | 1300~1324 | |
| | Zero dispersion slope | ps/(nm ² km) | ≤ 0.092 | |
| | Dispersionat 1288-1339nm | ps/(nm.km) | ≤3.5 | |
| | Dispersionat 1271-1360nm | ps/(nm.km) | ≤5.3 | |
| | Dispersionat 1550nm | ps/(nm.km) | ≤18 | |
| | Optical discontinuity@1550nm ± 20nm | ps/(nm.km) | ≤0.05 | |
| | Cable cut-off wavelength λ _{cc} | nm | ≤ 1260 | |
| Geometrical characteristics | Mode field diameter (MFD) at 1310nm | μm | 8.6-9.5±0.4 | |
| | Macro - bend loss (1 turn, 10mm radius) at 1550nm | dB | ≤ 0.75 | |
| | Macro - bend loss (10 turns, 15mm radius) at 1550nm | dB | ≤ 0.25 | |
| | Cladding diameter | μm | 125 ± 0.7 | |
| | Cladding non-circularity | % | ≤ 0.7 | |
| | Coating diameter | μm | 235~255 | |
| | Coating/cladding concentricity error | μm | ≤ 12.0 | |
| | Coating non-circularity | % | ≤ 6.0 | |
| | Core/cladding concentricity error | μm | ≤ 0.5 | |

Cable dimensions and countructions

| Items | | Descriptions | | | |
|-----------------|---------------|------------------------|---|---|---|
| Optical fiber | Fiber count | 1 | 2 | 3 | 4 |
| | Color | | | | |
| Strength member | Material | Phosphide steel wire | | | |
| | Diameter (mm) | 0.40 ± 0.05 | | | |
| | Count | 2 | | | |
| Messenger wire | Material | Steel wire | | | |
| | Diameter (mm) | 1 ± 0.1 | | | |
| | Material | LSZH | | | |
| Outer sheath | Color | Black | | | |
| Cable diameter | | 5.0(±0.2)*2.0(±0.2)mm | | | |
| Cable weight | Net weight | Approx. 23kg/km | | | |

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Mechanical and environmental characteristics

| Items | Test Method | Descriptions | |
|---------------------|--------------------------|------------------------------|------------|
| Tensile performance | IEC 60794-1-2 Method E1 | short-term | 600N |
| | | long-term | 300N |
| Crush Resistance | IEC 60794-1-2 Method E3 | short-term | 2200N/10cm |
| | | long-term | 1000N/10cm |
| Impact resistance | IEC 60794-1-2 Method E4 | No obvious change after test | |
| Repeat bending | IEC 60794-1-2 Method E6 | | |
| Torsion | IEC 60794-1-2 Method E7 | | |
| Kink | IEC 60794-1-2 Method E10 | | |
| Cable bend | IEC 60794-1-2 Method E11 | | |
| Temperature range | IEC 60794-1-2 Method F1 | -40°C~+70°C | |
| Bending radius | Static | 15mm | |
| | Dynamic | 30mm | |