

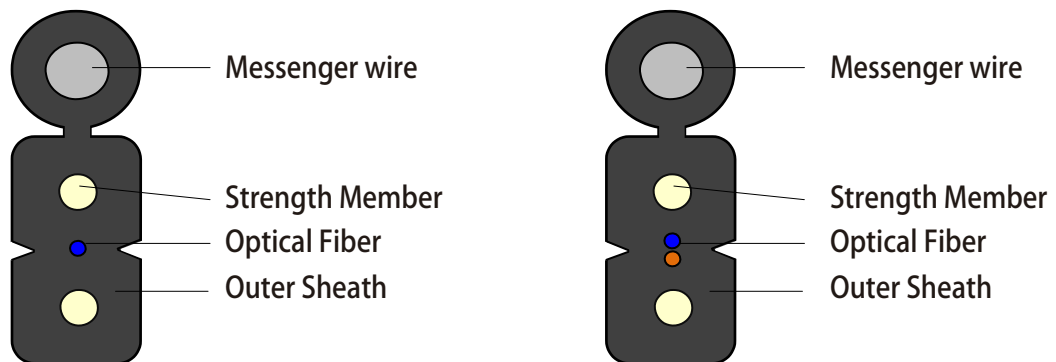


SELF-SUPPORTING BOW TYPE DROP CABLE

AR-2PEUFS-1F-G657A1/2

DESCRIPTION

The optical fiber unit is positioned in the centre. Two parallel Fiber Reinforced Plastics (FRP) are placed at the two sides. A steel wire as the additional strength member is also applied. Then, the cable is completed with a black or 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.
- Two parallel FRP strength members ensure good performance of crush resistance to protect the fiber.
- Steel wire as the additional strength member ensures good performance of tensile strength.
- 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.657A1/2)

Optical properties of the SM fiber are achieved through a germanium doped silica based core with a pure silica cladding which meets ITU-T G657A1/2, UV curable acrylate protective coating is applied over the glass cladding to provide the necessary maximum fiber lifetime.

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

| Category | Items | Unit | Description | |
|---|--|--------------------------|---------------|--------------|
| | | | Before cabled | After cabled |
| Optical Characteristics | Attenuation at 1310 nm | dB/km | ≤ 0.35 | ≤0.40 |
| | Attenuation at 1383 nm | dB/km | ≤ 0.35 | ≤0.40 |
| | Attenuation at 1550 nm | dB/km | ≤ 0.21 | ≤0.30 |
| | Attenuation at 1625 nm | dB/km | ≤ 0.23 | ≤0.30 |
| | Zero dispersion wavelength | nm | 1300~1324 | |
| | Zero dispersion slope | ps/(nm ² ·km) | ≤ 0.092 | |
| | Cable cut-off wavelength λ _{cc} | nm | ≤ 1260 | |
| | Mode field diameter (MFD) at 1310 nm | μm | 8.4~9.2 | |
| | Mode field diameter (MFD) at 1550 nm | μm | 9.3~10.3 | |
| | Group Index of Refraction Typical) at 1310 nm | / | 1.466 | |
| | Group Index of Refraction Typical) at 1550 nm | / | 1.467 | |
| | | | A1 | A2 |
| | Macro-bend loss (1 turn, 7.5mm radius) at 1550nm | dB | - | ≤ 0.2 |
| | Macro-bend loss (1 turn, 10mm radius) at 1550nm | dB | ≤ 0.75 | ≤ 0.1 |
| Macro-bend loss (1 turn, 15mm radius) at 1550nm | dB | ≤ 0.25 | ≤ 0.3 | |
| Geometrical Characteristics | Cladding diameter | μm | 125 ± 0.7 | |
| | Cladding non-circularity | % | ≤ 0.7 | |
| | Coating diameter | μm | 245 ± 5 | |
| | Coating/cladding concentricity error | μm | ≤ 12.0 | |
| | Coating non-circularity | % | ≤ 6.0 | |
| | Core/cladding concentricity error | μm | ≤ 0.5 | |

CABLE DIMENSIONS AND CONSTRUCTIONS

| Items | Descriptions | | |
|-------|---------------|-------------|---------------|
| | Optical Fiber | Fiber count | 1 |
| Color | | Blue | Blue / Orange |

| Items | | Descriptions | |
|-----------------|------------|--|---------------------------------------|
| Strength Member | Material | KFRP(Kevlar fiber reinforced plastics) | GFRP(Glass fiber reinforced plastics) |
| Messenger wire | Diameter | 0.5 mm | 0.5 mm |
| | Material | Galvanized steel wire with EAA | Steel wire |
| | Diameter | 1.2 mm | 1.2 mm |
| Outer Sheath | Material | Low friction LSZH | Low friction LSZH |
| | Thickness | ≥0.4 mm | ≥0.4 mm |
| Cable Diameter | Color | Black | Black |
| | | 5.3(±0.2)*2.0(±0.2)mm | 5.3(±0.2)*2.0(±0.2)mm |
| Cable Weight | Net Weight | Approx. 22kg/km | Approx. 22kg/km |

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 | | |
| 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 | |

PACKING

Cables are coiled on wooden or plastic drum. During transportation, right tools should be used to avoid damaging the package and to handle with ease.

Cables should be protected from moisture; kept away from high temperature and fire sparks; protected from over bending and crushing; protected from mechanical stress and damage.

MARKING

Unless otherwise specified, the cable sheath marking shall be as follows:

- Color: White or Black
- Contents: Cable manufacturer or owner, the year of manufacture, the type of cable, length marking
- Interval: 1m

DELIVERY LENGTH

A1: Standard delivery length is 0.5km/drum or 1km/drum. Other length available on request.

A2: Standard delivery length is 1km/drum or 2km/drum. Other length available on request.