

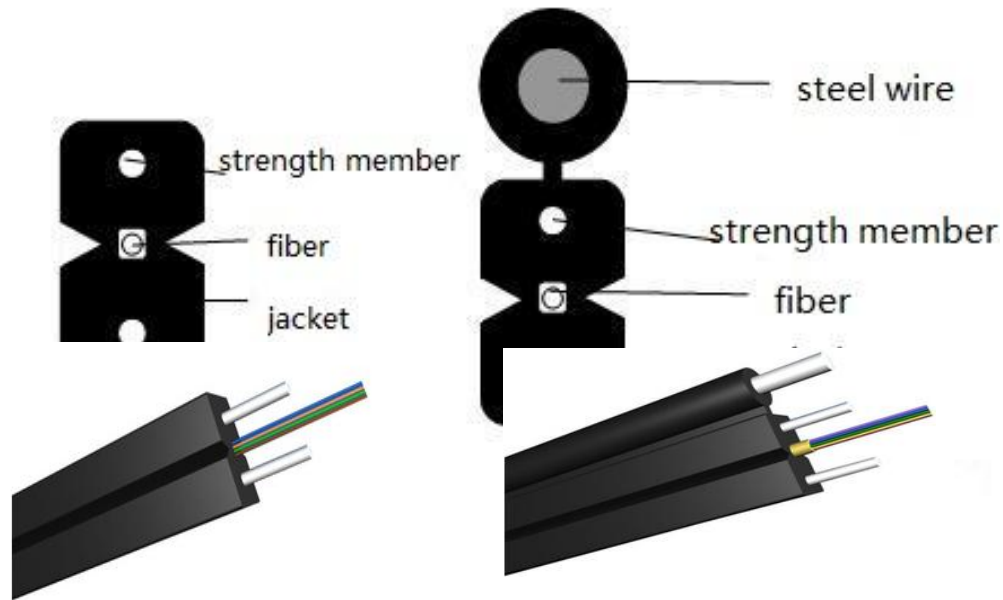
Specification

FOR
FTTH Butterfly Optic Cable

[GJXH/GJXFH]
[GJYXCH/GJYXFCH]

1.CABLE CONSTRUCTION

1.1. CROSS SECTIONAL DIAGRAM



1.2. STRUCTURE SPECIFICATION

| Cable Type | GJXH | | GJXFH | | GJYXCH | | GJYXFCH | |
|------------------------------|----------------------------------|------|-------|-----|-------------|------|------------|------|
| | 1-2 | 4 | 1-2 | 4 | 1-2 | 4 | 1-2 | 4 |
| Fiber count | 1-2 | 4 | 1-2 | 4 | 1-2 | 4 | 1-2 | 4 |
| The Color Code of The fibers | Natural/Blue,Orange,Green, Brown | | | | | | | |
| Strength Member | Steel wire | | G-FRP | | Steel wire | | G-FRP | |
| Messenger wire | — | | — | | Steel wire | | Steel wire | |
| Jacket Material: | LSZH | | LSZH | | LSZH | | LSZH | |
| OD of cable(mm) | 2.0×3.0±0.1 | | | | 2.0×5.0±0.1 | | | |
| Net weight (kg/km) | 10 | 10.5 | 8.5 | 9.5 | 20 | 20.5 | 18 | 18.6 |
| Max.Tensile Loading (N) | 200 | 200 | 80 | 80 | 600 | 600 | 600 | 600 |

Remarks: The Single core optical fiber color is natural.

2. Performance Parameters Of the Optical Fiber

2.1 Single Mode Fiber

| ITEMS | UNITS | SPECIFICATION | |
|---|------------------------|--|---|
| | | G652D | G657A |
| Fiber type | | | |
| Attenuation | dB/km | 1310nm ≤ 0.4 1550nm ≤ 0.3 | |
| Chromatic Dispersion | ps/nm.km | 1310nm ≤ 3.6 1550nm ≤ 18 1625nm ≤ 22 | |
| Zero Dispersion Slope | ps/nm ² .km | ≤ 0.092 | |
| Zero Dispersion Wavelength | nm | 1300 ~ 1324 | |
| Cut-off Wavelength (λ_{cc}) | nm | ≤ 1260 | |
| Attenuation vs. Bending (60mm x100turns) | dB | (30mm radius, 100ring) ≤ 0.1 @ 1625nm | (10mm radius, 1ring) ≤ 1.5 @ 1625nm |
| Mode Field Diameter | μm | 9.2 ± 0.4 at 1310nm | 9.2 ± 0.4 at 1310nm |
| Core-Clad Concentricity | μm | ≤ 0.5 | ≤ 0.5 |
| Cladding Diameter | μm | 125±1 | 125±1 |
| Cladding Non-circularity | % | ≤ 0.8 | ≤ 0.8 |
| Coating Diameter | μm | 245±5 | 245±5 |
| Proof Test | Gpa | ≥ 0.69 | ≥ 0.69 |

3. Mechanical and Environmental Performance of the Cable

| NO | ITEMS | TEST METHOD | ACCEPTANCE CRITERIA |
|----|-----------------------|---|--|
| 1 | Tensile Loading Test | #Test method: IEC 60794-1-E1 -. Long-tensile load: 0.5 times the short-term pulling force -. Short-tensile load: reference to clause 2.1 -. Cable length: ≥50m | -. Attenuation increment @ 1550nm: ≤ 0.1dB -. No jacket cracking and fiber breakage |
| 2 | Crush Resistance Test | #Test method: IEC 60794-1-E3 | -. Attenuation |

| | | | |
|---|--------------------------|--|--|
| | | -Long load: 1000 N/100mm -Short load: 2200 N/100mm Load time: 1 minutes | increment@1550nm:≤0.4dB -. No jacket cracking and fiber breakage |
| 3 | Impact Resistance Test | #Test method:IEC 60794-1-E4 -.Impact height: 1 m -.Impact weigh: 100 g -.Impact point: ≥3 -.Impact frequency: ≥1/point | -. Attenuation increment@1550nm:≤0.4dB -. No jacket cracking and fiber breakage |
| 4 | Repeated Bending | #Test method:IEC 60794-1-E6 -.Mandrel diameter: 30H -.Subject weight: 2kg -.Bending frequency: 300times -.Bending speed: 2s/time | -. Attenuation increment@1550nm:≤0.4dB -. No jacket cracking and fiber breakage |
| 5 | Torsion Test | #Test method:IEC 60794-1-E7 -.Length: 1m -.Subject weight:2kg -.Angle: ±180 degree -.Frequency: ≥20/point | -. Attenuation increment@1550nm:≤0.4dB -. No jacket cracking and fiber breakage |
| 6 | Temperature Cycling Test | #Test method:IEC 60794-1-F1 -.Temperature steps: +20℃、-10℃、+60℃、+20℃ -.Testing Time: 8 hours/step -.Cycle index: 2 | -. Attenuation increment@1550nm:≤0.3dB -. No jacket cracking and fiber breakage |
| 7 | temperature | Operating :-10℃~+60℃ Store/Transport:-10℃~+60℃ Installation:-10℃~+60℃ | |

4. FIBER OPTIC CABLE BENDING RADIUS

Static bending: ≥10 times than cable out diameter

Dynamic bending: ≥20 times than cable out diameter.

5. PACKAGE AND MARK

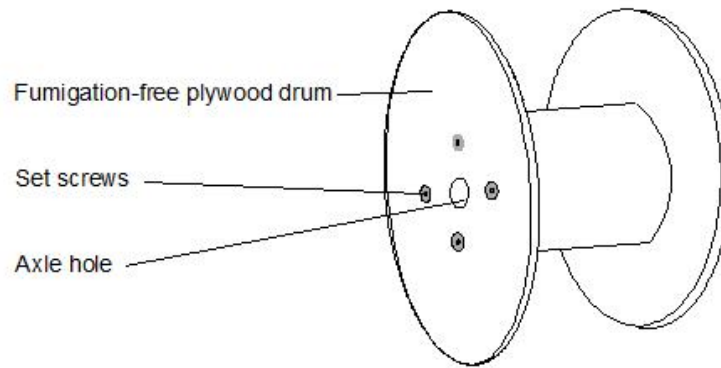
5.1 PACKAGE

Not allowed two length units of cable in one drum,. Two ends should be packed inside drum, reserve length of cable not less than 1meters.

6.2 MARK

Cable Mark: length, brand

Drum Mark: Manufacturer, cable category, No. of drum, length, GW. direction of rotation, manufacturing date.



7.TEST REPORT

Test report and certification supplied.