



## Product Specification

### For FTTH Optical Fiber Cable

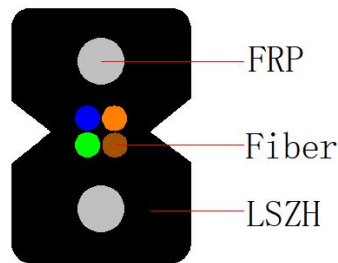
#### 1. Technical parameter of ITU-T G.657 (B6) single-mode optical fiber

Characteristics	Conditions	Specified Values	Units
<b>Optical Characteristics</b>			
Mode field diameter (MFD)	1310nm	9.2±0.5	μm
	1550nm	10.5±0.8	μm
Cut-off wavelength (λ <sub>cc</sub> )		≤1260	nm
Attenuation coefficient	1310nm	≤0.35	dB/km
	1383nm	≤0.34	dB/km
	1550nm	≤0.21	dB/km
Macro bending loss	Φ30mm, 100circles, at 1625nm	≤0.1	dB
Attenuation non-uniformity		≤0.05	dB
Dispersion coefficient	1288 ~ 1339nm	≤3.5	Ps/(nm.km)
	1271 ~ 1360nm	≤5.3	Ps/(nm.km)
	1550nm	≤18	Ps/(nm.km)
Zero dispersion wavelength		1300 ~ 1324	nm
PMD	Link value	≤0.2	Ps/km <sup>1/2</sup>
Max zero dispersion slope		≤0.092	Ps/(nm <sup>2</sup> .km)
Group index of refraction (Typical Value)	1310nm	1.466	
	1550nm	1.467	
<b>Geometric characteristic</b>			
Cladding diameter		125±0.7	μm
Core/cladding concentricity error		≤0.5	μm
Cladding non-circularity		≤1.0	%
Coating diameter		245±10	μm
Cladding/coating concentricity error		≤12.0	μm
Coating non-circularity		≤8	%
Diameter of colored coating		250±15	μm
<b>Mechanical characteristic</b>			
Proof stress		≥0.69	Gpa
Proof Strain		≥1.0	%
Coating strip force	Average value	1.0-5.0	N
	Peak value	1.3-8.9	N
Dynamic stress corrosion susceptibility		≥20	

parameter (n <sub>d</sub> value)			
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## 2. OPTICAL FIBER CABLE FEATURES

### 2.1 Structure:



GJXFH

### Suitable:

Indoor cable distribution Adopted to core network, access network and fiber to home

#### 2.2.1 Fiber color code

No.	1	2	3	4
Color	Blue	Orange	Green	Grey

Color-coding of fiber will be clearly, and not fade in temperature of working and installation.

#### 2.2.2 Construction of GJXFH

Item		Description
Approx. cable diameter		$(2.0 \times 3.0) \pm 0.1\text{mm}$
Approx. cable net weight		10 kg/km
Strength Member	Material	FRP
	Outer diameter	$0.50 \pm 0.02\text{mm}$
Optical fiber	Type	ITU-T G .657 fiber
	Numbers	1/2/4
LSZH sheath of cable	Material	LSZH with UV resistant
	colour	White
LSZH oxygen index		$\geq 27$ IEC60332-1
Attenuation coefficient	1310nm	$\leq 0.40\text{dB/km}$

	1550nm	≤0.30dB/km
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### 2.3 Mechanical and physical of the cable

Cable Type	Tensile Strength (N)		Crush Resistance Strength (N/100mm)		Min. Bending Radius (mm)	
	Short Term	Long Term	Short Term	Long Term	Dynamic	Static
GJXFH	100	40	1000	500	30D	15D
Operation Temperature:-20°C~+60°C						

### 3. Cable Testing

#### 3.1 Mechanic performance:

Item	Test standard
Tension	IEC 60794-1-2-E1
Impact Resistance	IEC 60794-1-2-E4
Crush	IEC 60794-1-2-E3
Repeat Bending	IEC 60794-1-2-E8
Twist	IEC 60794-1-2-E7
Cable Bending	IEC 60794-1-2-E11B

#### 3.2 Environment performance:

Item	Testing Method
Temperature cycling	IEC 6094-1-2-F1
Water penetration	IEC 60794-1-2-F5
Compound drip	IEC 60794-1-2-E14

#### **4. Cable marking**

Unless otherwise required the sheath will be marked at intervals of 1m, containing:

- (a) Indication in meters
- (b) Quantity and type of fibers
- (c) Factory name
- (d) Date of manufacturing (year)
- (e) Other requirements

The marks will be permanent and legible for the duration of the cable life.

#### **5. Packaging & Delivery**

All cables will be delivered on drums with protection of both ends of the cable. Each drum will be a waterproof mark according to requirements.

Normal cable length: 1km/ 2km, or as per the customer's requirement

Production duration: 30 working days