Specification

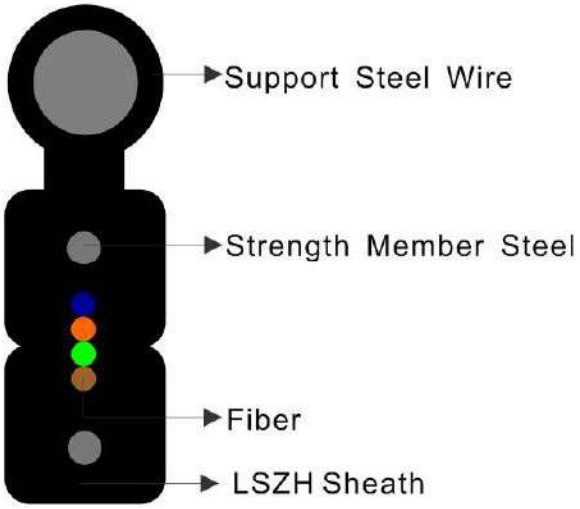
FOR

FTTH Drop Optic Cable

[GJYXCH]

1.CABLE CONSTRUCTION

1.1. CROSS SECTIONAL DIAGRAM



1.2. STRUCTURE SPECIFICATION

Cable Type:	**GJYXCH**
Fiber Type:	**Single Mode ITU-T Rec. G . 657. A2**
Fiber count:	1fiber, 2fiber or 4fiber
Fiber Color Code:	Blue/Orange/Green/Brown
Strength Member:	2*0.45mm Steel Wire
Messenger wire:	1.0mm Steel Wire
Jacket Material:	LSZH Black
OD of cable(mm)	2.0mm * 5.2mm±0.2
Nominal weight (kg/km):	17±2
Max.Tensile Loading (N):	600

2.Performance Parameters Of the Optical Fiber

2.1 Single Mode Fiber

LTEMS	UNITS	SPECIFICATION
Fiber type		**ITU G 657- A**
Attenuation	dB/km	1310nm≤ 0.35 1385nm≤ 0.32 1490nm≤ 0.25 1550nm≤ 0.22 1625nm≤ 0.25
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 (λcc)	nm	≤ 1260
Attenuation vs. Bending	dB	(15mm radius,10ring) ≤ 0.1@1625nm (15mm radius,10ring) ≤0.03@1550nm (20mm radius,1ring) ≤ 1.5@1625nm (20mm radius,1ring) ≤ 0.75@1550nm
Mode Field Diameter	μm	9.2 ± 0.4 at 1310nm
Core-Clad Concentricity	μm	≤ 0.5
Cladding Diameter	μm	125±0.7
Cladding Non-circularity	%	≤ 0.8
Coating Diameter	μm	245±5
Proof Test	Gpa	≥ 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: 600N	-. Attenuation Increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage

		-. Cable length: ≥50m	-. Fiber strain≤0.33%
2	Crush Resistance Test	#Test method:IEC 60794-1-E3 -.Long load: 1000 N/100mm -.Short load: 2200 N/100mm Load time: 5 minutes -. Test points: ≥3	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
3	Impact Resistance Test	#Test method:IEC 60794-1-E4 -.Impact height: 1m -.Impact weigh: 1000g,12.5mm -.Impact point: ≥5 -.Impact frequency: ≥5/point	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
4	Repeated Bending	#Test method:IEC 60794-1-E6 -.Mandrel diameter: 20D -.Subject Load: 150N -.Bending frequency: 30times -.Bending speed: 3s/time	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
5	Torsion Test	#Test method:IEC 60794-1-E7 -.Length: 2m -.Subject Load:150N -.Angle: ±180 degree -.Twist Rate:1min/cycle -.Frequency: ≥10/cycle	-. Attenuation increment@1550nm:≤0.1dB -. No jacket cracking and fiber breakage
6	Temperature Cycling Test	#Test method:IEC 60794-1-F1 -.Temperature steps : ＋20℃、－40℃、＋60℃、－40℃、＋60℃、＋20℃ -.Testing Time: 12 hours/step -.Cycle index: 2	-. Attenuation increment@1550nm:≤0.05dB -. No jacket cracking and fiber breakage
7	Temperature	Operating : -40℃~+60℃ Store/Transport: -40℃~+60℃ Installation: -20℃~+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.