

Fiber to the home aerial drop cable (1core FTTH)

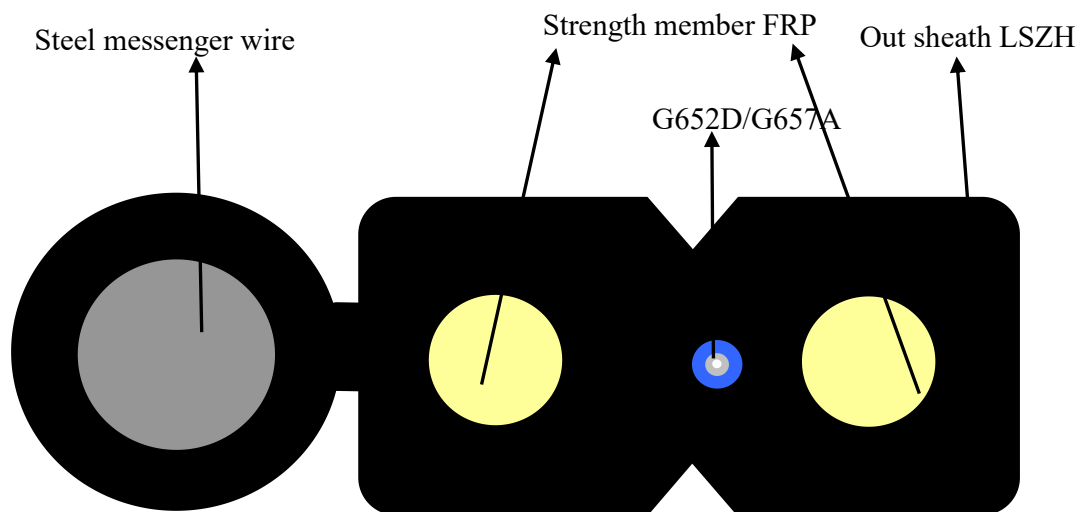
Specification

Cable Description

FTTH Cable directly connected to their homes, their bandwidth, wavelength and transmission technology type are not restricted. The optical fiber unit is positioned in the centre. Two parallel strength member 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 LSZH sheath.

Cable Drawing

<Cross-sectional Drawing of Cable>



Note : Structure drawing just for reference, please check the following details.

Application

- Adopted to outdoor level and vertical distribution.
- Suitable for connect with communication equipment.
- Long distance and local area network communication.

Characteristics

- Good mechanical and environmental characteristic
- Anti-UV characteristics meet the requirements of relevant standards
- The mechanical characteristics meet the requirements of relevant standards
- Soft ,flexible ,easy to lay and splice,and with big capacity data transmission
- Meet various requirements of market and clients

Features

Cable construction details

Items		Description
Number of fiber		1cores
Fiber type		ITU- G652D/G657A1/A2
Strength member	material	Non-Metallic Fiber reinforced plastic(FRP)
	diameter	2*0.5mm
Self support Messenger wire	material	Galvanized steel wire
	diameter	1.0mm
Outer sheath	material	LSZH standard IEC60322-1&IEC 60332-3C
	diameter	1.8±0.2mm
Cable size (Height * width)		2.0(±0.1) mm × 5.0(±0.2)mm
Messenger sheath thickness		0.5mm
Cable weight		22KG±1KG

Standard color of fiber and tube

The color of the individual fibers (EIA/TIA-598), shall be in accordance with the table as below:

Standard Colour Identification	
No.	1
Color	Blue

Out sheath is black.

Cable Mechanical characteristic

Items		Description
Installation Temperature range		-10±70℃
Storage or shipping range		-20±80℃
Operation and transport temperature		-20±80℃
Span length		50m
MOT (maximum operation tension)		≥ 0.5KN
MAT (maximum allowable tension)		≥ 1 KN
Applied Load Crush Resistance		≥ 0.5 KN/1
Shock resistance of cable		≥ 3 times
Min Bending Radius(mm)	Long term	15D
	short term	30D
Utilization time		≥ 15 years
Fiber length in cable compare with the cable length		≥ 1%

Fiber characteristic

Fiber style		Unit	SM G652D	SM G657A1	MM 62.5/125
condition		nm	1310/1550	1310/1550	850/1300
attenuation		dB/km	≤0.36/0.23	≤0.4/0.3	≤3.0/1.0
Dispersion	1310nm	Ps/(nm*km)	≤18	≤18	.....
	1550nm	Ps/(nm*km)	≤22	≤22	.....
Bandwidth	850nm	MHZ. KM	.....	.....	≧ 160
	1300nm	MHZ. KM	.....	.....	≧ 500
Zero dispersion wavelength		nm	1314 ≤ λ0 ≤ 1324	1314 ≤ λ0 ≤ 1324	.....
Zero dispersion slope		ps/(nm²×Km)	≤0.091	≤0.092	.....
PMD Maximum Individual Fiber		[ps/√km]	≤0.2	≤0.2	.....
PMD Design Link Value		ps/(nm²×Km)	≤0.08	≤0.08	.....
Fiber cutoff wavelength λc		nm	≧ 1180, ≤1330	≧ 1180, ≤1330	.....
Cable cutoff wavelength λcc		nm	≤1260	≤1260	.....



MFD	1310nm	um	9.2±0.4	8.6±0.4	.....
	1550nm	um	10.4±0.8	10.1±0.5	.....
Numerical Aperture(NA)			.....	.....	0.275±0.015
Step(mean of bidirectional measurement)		dB	≤0.05	≤0.05	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.05	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.03	≤0.10
Attenuation uniformity		dB/km	≤0.01	≤0.01	.....
Core diameter		um	.....	.....	62.5±2.5
Cladding diameter		um	125.0±0.1	125±0.1	125.0±0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242±7	245±5	242±7
Coating/chaffinch concentricity error		um	≤12.0	≤12.0	≤12.0
Coating non circularity		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤0.6	≤1.5
Curl(radius)		um	≥4	≥4	.....