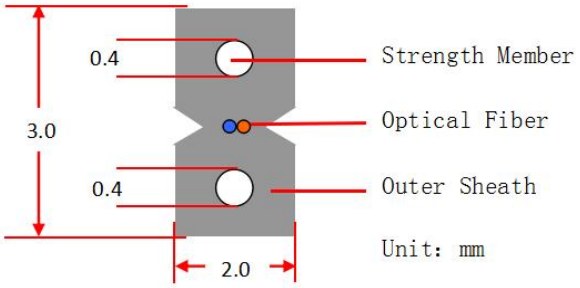
FTTH Indoor Drop Cable（GJXFH）

Cable Design



Technical data

No. of cable		1/2
Fiber Model		G657A2
Strength Member	Material	FRP
	Diameter（±0.05）mm	0.5
	NO.	2
Outer Sheath	Material	LSZH
Cable Diameter（±0.2）mm		2.0×3.0
Cable Wetght（±1.0）kg/km		9.0
Attenuation	1310nm	≤0.40dB/km
	1550nm	≤0.30dB/km
Allowable Tensile Strength	Long Term	40N
	Short Term	80N
Allowable Crush Resistance	Long Term	1000N/100mm
	Short Term	2200N/100mm
Min. bending radius	Without Tension	15.0D
	Under Tension	30.0D
Temperature range	Installation	0℃~+50℃
	Transport&Storage	-20℃~+50℃
	Operation	-20℃~+50℃

Fibre Color

No.	1
Color	Blue

The properties of optical fiber (ITU-T Rec. G.657A2)

Characteristic	Characteristic	Characteristic	Characteristic
Optical properties			
Attenuation	1310nm 1383nm(After hydrogen aging) 1550nm 1625nm	≤0.35 ≤0.32 ≤0.20 ≤0.21	dB/km dB/km dB/km dB/km
Relative wavelength attenuation @1310nm @1550nm	1285～1330nm 1525～1575nm	≤0.05 ≤0.05	dB/km dB/km

Dispersion in the wavelength range of	1285～1340nm 1550nm	≤3.5 ≤18	ps/(nm.km) ps/(nm.km)
Zero dispersion wavelength		1300～1324	nm
A zero-dispersion slope		≤0.092	ps/(nm^2.km)
Polarization Mode Dispersion Coefficient PMD Single fiber maximum Fiber link value (M=20, Q=0.01%) Typical value		 ≤0.2 ≤0.1 0.04	 ps/km ps/km ps/km
Cable cut-off wavelength(λcc)		≤1250	nm
Mode field diameter （MFD）	1310nm 1550nm	8.8±0.4 9.8±0.5	μm μm
Attenuation discontinuities	1310nm 1550nm	≤0.05 ≤0.05	dB dB
Geometric characteristics			
Core diameter		125±0.7	μm
Cladding roundness		≤0.7	%
Coating diameter		245±5	μm
Coating / package concentricity error		≤12.0	μm
Core / package concentricity error		≤0.5	μm
The warpage (radius)		≥4	m
Environmental characteristics（1310nm、1550nm、1625nm）			
Temperature additional attenuation	-60℃ ～+85℃	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ～+85℃，98% Relative humidity	≤0.05	dB/km
Flooding additional attenuation	23℃，30 days	≤0.05	dB/km
Hot and humid additional attenuation	85℃和 85% Relative humidity，30 days	≤0.05	dB/km
Dry heat aging	85℃	≤0.05	dB/km
Mechanical properties			
Screening tension		≥9.0	N
The macro bend Additional attenuation 1CircleΦ7.5mm 1CircleΦ10mm 10CircleΦ15mm 1CircleΦ7.5mm 1CircleΦ10mm 10CircleΦ15mm	 1550nm 1550nm 1550nm 1625nm 1625nm 1625nm	 ≤0.330 ≤0.080 ≤0.015 ≤0.710 ≤0.160 ≤0.095	 dB dB dB dB dB dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	

Main mechanical & environmental performance test

DESCRIPTION	VALUES	REFERENCES
Tensile Strength	Load 80N for 10 minutes .Variation of attenuation≤0.1dB .Fibers strain≤0.33%	IEC 60794-1-2-EIA IEC 60794-1-2-EIB IEC 60794-2-50

Crush Tset	Load 2200N for 3 minutes .Variation of attenuation≤0.1dB	IEC 60794-1-2-E3 IEC 60794-2-50
Inpact Test	Energy=1 J on surface of 12.5mm radius,3 times; .Variation of attenuation≤0.1dB	IEC 60794-1-2-E4 IEC 60794-2-50
Bending Test	Load 100N for 5 minutes Radius of curvature=10×O.D .Variation of attenuation≤0.1dB	IEC 60794-1-2-E18A Procedure no.2

Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin whit zero meter. The accuracy of the measurement of lenth marking shall be held within the limits of ±1%.

a) Manufacturer's name
b) Type of wire
c) Year and month of manufacture
d) Length marking each meter along the wire