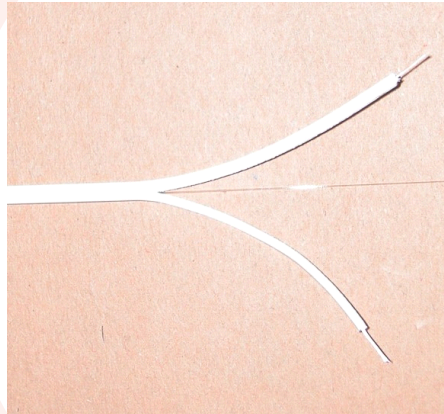
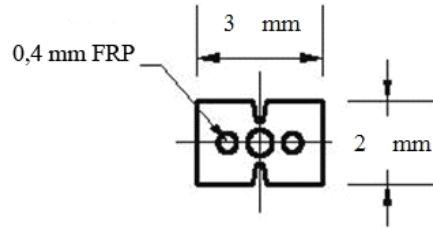


Technical specification for FTTH cable-GJXFH G657A

This specification covers the central tube type optical fiber cables and technical properties complying with the latest YD/T901-2001 standard.

1. Cable Construction



2. Cable Specification

2.1 Sheath marking-meter marking every meter.

2.2 Cable structure and parameter

Fiber count	Out diameter (mm)	Diameter of ØÚ (mm)	Cable Wt. (Kg/km)	Max. tensile strength (N)	Max. Crush resistance (N/10mm)
1 & 2	2 X 3	0.4	ì .G	80	1000

3. Characteristic of Optical Cable

3.1 Mechanical & environmental characteristics (Please refer to attachment 2)

3.1.1 Cable bending radius: 30nn

3.1.2 Temperature range

Operating temperature range	-10°C to +50°C
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Storage / Transport temperature range	-10°C to +50°C
Installation temperature range	-10°C to +50°C

4. Packing and Marking

4.1 Packing

4.1.1 Each single length of cable shall be reeled on **Plywood Drum**.

4.1.2 Covered by plastic buffer sheet.

4.1.3 At least 1 m of inside end of cable will be reserved for testing.

4.1.4 Drum length: Standard drum length is 2000m±2%;

5. Drum Marking

- Brand: VIDEOMAX
- Manufacturing year & month
- Cable run direction “→”
- Cable end mark “↑”
- OPTICAL ELECTRIC FIBER CABLE
- Type
- Drum No.: DRUM 1
- Cable Length: 2KM
- GW ***/NW***
- MADE IN CHINA

6. Cable identification documents

- Product qualified certificate;
- Test report.

Attachment 1

Fiber Properties The properties of single mode optical fiber (ITU-T Rec. G.657)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient	
@ 1310 nm	≤ 0.35 dB/km
@ 1550 nm	≤ 0.21 dB/km
@ 1285-1330 nm	≤ 0.38 dB/km
@ 1550 nm	≤ 0.22 dB/km
Point discontinuity @1310 nm & 1550 nm	≤ 0.05 dB
Cable cut-off wavelength	1170-1330(2m fiber) ≤ 1260 nm cable
Dispersion	
Zero-dispersion wavelength	1300 ~ 1332 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Chromatic dispersion	
@ 1285 ~ 1339 nm	≤3.4 ps/(nm. km)
@ 1271 ~ 1360 nm	≤5.3 ps/(nm. km)
@ 1550 nm	≤18 ps/(nm. km)
PMD _Q (Quadrature average*)	≤ 0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	9.2±0.5 um
Core / Clad concentricity error	≤ 0.6 um
Cladding diameter	124.3-125.1 um
Cladding non-circularity	≤ 1.0%
Primary coating diameter	242 ± 5 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence	
0°C~ +70°C @ 1310 & 1550nm	≤ 0.1 dB/km

* PMD_Q is a link of 20 cable sections (M) and a probability level of 0.01% (Q).

Attachment 2 Main mechanical & environmental characteristics test

NO	ITEM	TEST METHOD	ACCEPTANCE REQUIREMENTS
1	Tensile Strength IEC 794-1-E1	- Load:600 N - Length of cable under load: 50m	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
2	Crush Test IEC 60794-1-E3	- Load: 1, 000 N/100mm - Load time: ≥ 1 min	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
3	Impact Test IEC 60794-1-E4	- Points of impact: 5 - Times of per point: 5 - Impact energy: 10.0Nm - Radius of hammer head: 12.5mm - Impact rate: 2sec/cycle	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
4	Repeated Bending IEC 60794-1-E6	- Bending Dia.: 20 x OD - Load: 250N - Flexing rate: 3sec/cycle - No. of cycle: 30	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
5	Torsion IEC 60794-1-E7	- Length: 1m - Load: 250N - Twist rate: 1min/cycle - Twist angle: $\pm 90^\circ$ - No. of cycle: 10	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
6	Water Penetration IEC 60794-1-F5B	- Height of water: 1m - Sample length: 3 m - Time: 24 hour	- No water shall have leaked from the opposite end of cable
7	Temperature Cycling IEC 60794-1-F1	- Temperature step: $+20^\circ\text{C} \rightarrow -40^\circ\text{C} \rightarrow +60^\circ\text{C} \rightarrow +20^\circ\text{C}$ - Time per each step: 24 hrs - Number of cycle: 2	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
8	Compound Flow IEC 60794-1-E14	- Sample length: 30 cm - Temp: $70^\circ\text{C} \pm 2^\circ\text{C}$ - Time: 24 hours	- No compound flow
9	Sheath High Voltage Test	- On line test - 9t KV (t-sheath thickness)	- No sheath breakdown

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