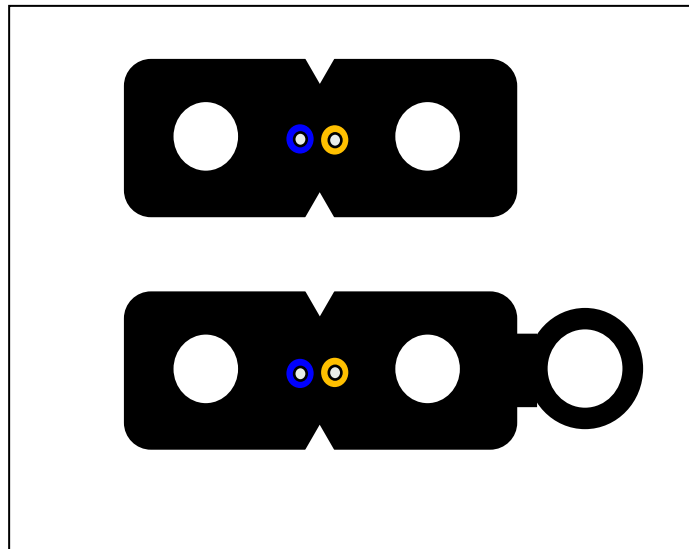


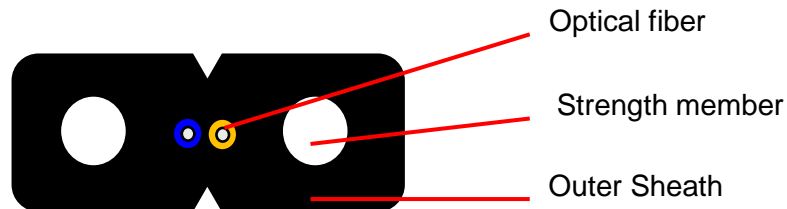
FTTx DROP CABLE SPECIFICATION



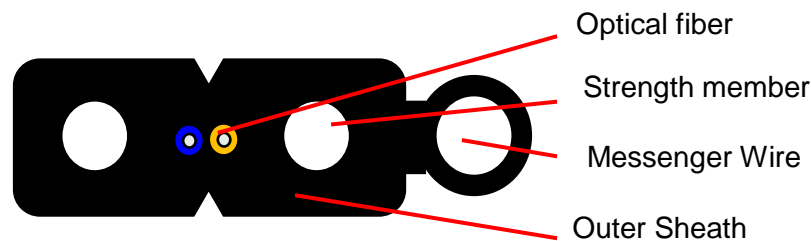
1. Cable construction

1.1 Cross Section of Fiber Optic Cable

1.1.1. Duct type



1.1.2. Aerial type



1.2 Construction of Fiber Optic Cable

Structure	Material	SPECIFICATIONS	
		Duct type (1C, 2C)	Aerial Type (1C, 2C)
Optical fiber	Single Mode	- G.657A	
	Color	- Colored Fiber : Blue, Orange	
Strength member	FRP or Steel wire	Φ0.4 * 2	
Messenger Wire	Steel Wire	-	Φ1.2
Outer sheath	Material	FR-PE (LSZH:Low Smoke Zero Halogen)	
	Diameter	2.0 * 3.1(±0.1)	2.0(±0.1) * 5.0(±0.2)
	Color	Black	
Maximum load (N)		250	250
Weight (kg/km)		10	15
Marking (Ink Jet)		White The marking is printed every 1 meter	

2. Fiber characteristics (ITU-T G.657)

Parameter	Specification
Attenuation coefficient:	
@ 1310 nm	≤ 0.40 dB/km
@ 1383 nm	≤ @1310 nm dB/km loss↓
@ 1550 nm	≤ 0.30dB/km
@ 1625 nm	≤ 0.35dB/km
PMD	≤ 0.06 dB(ps/km ^{1/2})
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Chromatic dispersion	
@ 1285 ~ 1625 nm	≤ 3.0 ps/(nm ² .km)
@ 1550 nm	≤ 18.0 ps/(nm ² .km)
Mode field diameter @ 1310 nm	8.7 ± 0.5 μm
Core/Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 1.0 μm
Cladding non-circularity	≤ 0.5 %
Primary Coating diameter	245 ± 10μm
Proof test level	<i>100 kpsi, 1%</i>
Attenuation with bending Loss	
(G657 B) 15 mm diameter, 1 turn	1550nm ≤ Δ 0.50 dB/km 1625nm ≤ Δ 1.00 dB/km
(G657 A/B) 20 mm diameter, 1 turn	1550nm ≤ Δ 0.10 dB/km 1625nm ≤ Δ 0.20 dB/km
(G657 A/B)30 mm diameter, 10 turn	1550nm ≤ Δ 0.03 dB/km 1625nm ≤ Δ 0.10 dB/km

3. Cable Properties

3.1 Mechanical & Environmental properties

3.1.1 Cable bending radius: 15mm (during operation)
30mm (during installation)

3.2 Mechanical & Environmental requirements

No	Item	Test Method	Specification
1	Tensile load IEC60794-1-E1	- Load: Refer to para. 1.2 - Mandrel dia.: ≥ 360 mm - Length: 100m - Time: 5 mins.	-Loss change ≤ 0.1 dB @1550 nm
2	Crush test IEC60794-1-E3	- Load: 250kg - Length: 100 mm - Time: 5 mins.	-Loss change ≤ 0.1 dB @1550 nm
3	Impact test IEC60794-1-E4	- Radius of impacted surface: 25 mm - Impact load: 0.5 kg - Falling height: 150mm - 10times	-Loss change ≤ 0.1 dB @1550 nm
4	Torsion IEC60794-1-E7	- Length: 2 m - Load: 10 N - Twist angle: $\pm 180^\circ$ - No. of cycle : 5	-Loss change ≤ 0.1 dB @1550 nm
5	Temperature Cycling IEC60794-1-F1	- Length : 1,000m: - Temperature cycle: 20°C → -30°C → +70°C → -30°C → +70°C → 20°C - Number of cycle: 1 - Time per step: 12 hours	-Loss change ≤ 0.1 dB @1550 nm