FTTH FLAT CENTRAL TUBE CABLE

SPECIFICATION

■ Type : Central tube cable

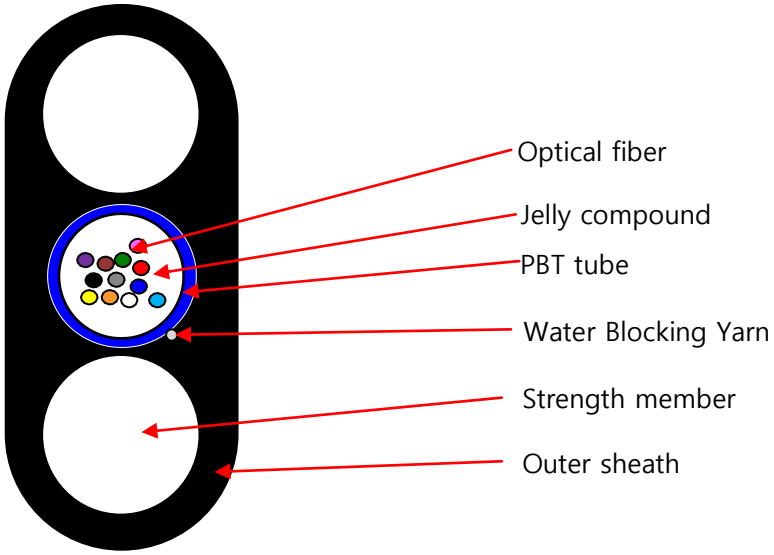
G.652D 2F/4F/12F

■ Spec. No. : LA-CDR-160107A

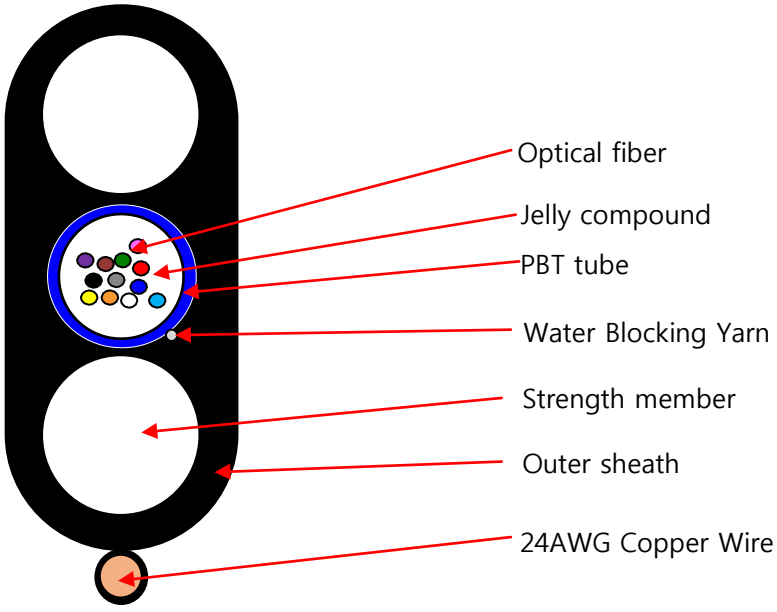
1. Cable Structure

1.1 Cross Section

1.1.1 Optical Type



1.1.2 Hybrid Type



1.2 Construction

Structure		Material	SPECCIFICATIONS
Optical Fiber		Fiber	- G.652D
		Color	- 2F : Blue, Orange - 3F : Blue, Orange, Green, Brown - 12F : Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Violet, Pink, Aqua
Loose Tube		PBT	- Diameter : 2.0 / 1.4mm - Color : Blue
Outer sheath	Strength Member	FRP	- 2.1mm 2ea
	Water proof	Water Blocking Yarn	- 1ea
	Hybrid Type	24AWG	- Copper Wire 1ea
	Sheath	HDPE	- Optical type 8.0±0.3mm * 4.3±0.2mm Hybrid type 9.0±0.3mm * 4.3±0.2mm
		Color	- Black
Marking			- Indent , 1m

1.3 Cable diameter & Construction details

Fiber Count	Outer Diameter (mm)	Loose Tube Diameter (mm)	Tensile Load(N)		Weight (NET. Kg/km)	Remark
			Operation	Installation		
Optical type	8.0±0.3 * 4.3±0.2	2.0 ± 0.1	600	1500	33	
Hybrid type	9.0±0.3 * 4.3±0.2	2.0 ± 0.1	600	1500	36	

1.4 Marking

xxxxM (Customer's) FTTH FLAT CENTRAL TUBE CABLE XXF G.652D TAIHAN 2016

- XXXXM : figure of meter
- The marking is printed every 1 meter.

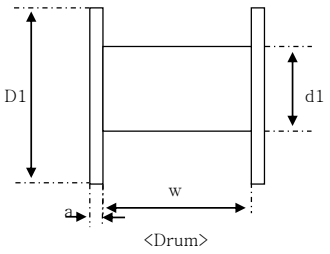
1.5 Packing

- Plywood Bobbin
- Pallet is applied for the shipment
- Box
- 2,500m/Drum
- Shipping Weight

  Optical type : 95kg/2,500m

  Hybrid type : 102kg/2,500m

ITEM	Drum						Box			Pallet		
	material	Size(mm)				Weight (kg/ea)	material	Size (mm)	Weight (kg/ea)	material	Size (mm)	Weight (kg/ea)
		D1	d2	W	a							
2/4/12F	Plywood	600	385	425	12	9	Kraft liner brown	615*465*615(h)	3	Wooden	930* 1230*130(h)	11.0



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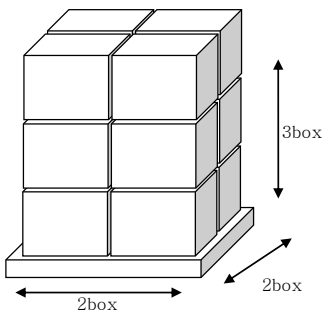

<Pallet>

2. Optical Fiber Property

2.1 The properties of single mode fiber (ITU.G.652D)

Parameter	Specification
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.36dB/km ≤ 0.35dB/km ≤ 0.22dB/km ≤ 0.25dB/km
PMD	≤ 0.2 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 ~ 1330 nm @ 1550 nm	 ≤ 3.0 ps/(nm^2.km) ≤ 18.0 ps/(nm^2.km)
Mode field diameter @ 1310 nm	9.2 ± 0.4 um
Core/Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 1.0 um
Cladding non-circularity	≤ 0.5 %
Primary Coating diameter	245 ± 5um
Refractive index	1.4690 @ 1310 nm 1.4695 @ 1550 nm
Proof test level	100 kpsi, 1%

3. Cable Property

3.1 Mechanical & Environmental properties

3.1.1 Cable bending radius: 18 x cable diameter (during operation)
10 x cable diameter (during installation)

3.1.2 Operating/Storage temperature range : -40°C to +70°C
Installation temperature range : -10°C to +50°C

3.2 Mechanical & Environmental requirements

No	Item	Test Method	Specification
1	Tensile load IEC60794-1-E1	- Load : Reference 1.3 - Length: 100 m - Time: 10 mins	-Loss change ≤ 0.1 dB @1550 nm
2	Crush test IEC60794-1-E3	- Load : 600 N - plate : 100*100 - Time: 5 mins.	-Loss change ≤ 0.1 dB @1550 nm
3	Bending test IEC60794-1-E11A	- Mandrel dia. 30 x cable diameter - 5 turns	-Loss change ≤ 0.1 dB @1550 nm
4	Impact test IEC60794-1-E4	- Radius of impacted surface: 25 mm - Impact load: 1 kg - Falling height: 150mm - times : 20	-Loss change ≤ 0.1 dB @1550 nm
5	Torsion IEC60794-1-E7	- Length: 1 m - Load: 50 N - Twist angle: ±180° - No. of cycle : 1	-Loss change ≤ 0.1 dB @1550 nm
6	Temperature Cycling IEC60794-1-F1	- Length : 1,000m: 20°C→-40°C→+70°C→-40°C→+70°C→20°C - Number of cycle: 1 - Time per step: 12 hours	-Loss change ≤ 0.1 dB @1550 nm