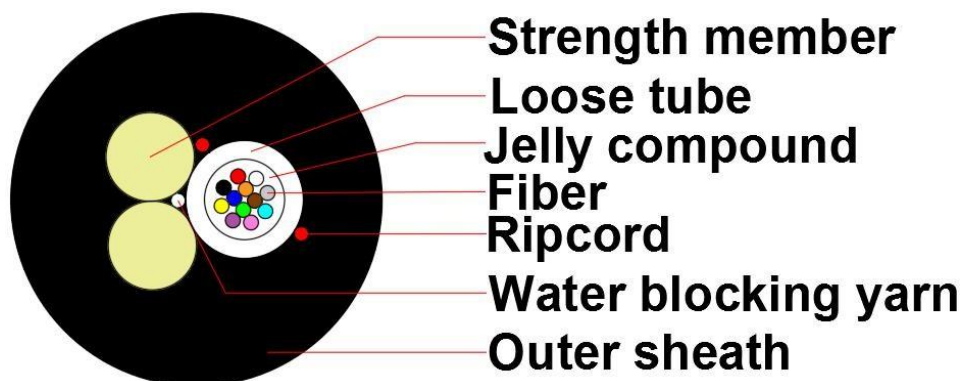


Central Loose Tube Aerial Self Supported, G.652D, FRP, HDPE

Cable Design



Technical data

No. of cable		6/12/24/48/100
Span		100m
Fiber Model		G.652D
Loose Tube	Material	PBT
	Diameter	2.0±0.06 mm
	Thickness	0.32±0.03 mm
	Color	Natural
Strength Member	Material	FRP
	Diameter	2.0±0.05 mm
Ripcord	Material	Nylon
	No.	2
Outer Sheath	Material	HDPE
	Color	Black
Cable Diameter		7.0±0.2 mm
Cable Weight		53±5.0 kg/km
Allowable Tensile strength		2000N
Allowable Crush Resistance		2200N/100mm
Min. bending radius	Without Tension	10.0×Cable-φ
	Under Maximum Tension	20.0×Cable-φ
Temperature range (°C)	Installation	-20~+60
	Transport & Storage	-40~+70
	Operation	-40~+70

Fiber Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

The properties of single mode optical fiber (ITU-T Rec. G.652.D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient	
@ 1310 nm	≤ 0.35 dB/km
@ 1383 nm	≤ 0.32 dB/km
@ 1550 nm	≤ 0.21 dB/km
@ 1625 nm	≤ 0.25 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Chromatic dispersion	
@ 1288 ~ 1339 nm	≤ 3.5 ps/(nm. km)
@ 1271 ~ 1360 nm	≤ 5.3 ps/(nm. km)
@ 1550 nm	≤ 18 ps/(nm. km)
@ 1625 nm	≤ 22 ps/(nm. km)
PMD _Q (Quadrature average*)	≤ 0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	9.2±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 0.7 μm
Cladding non-circularity	≤ 1.0%
Primary coating diameter	245 ± 10 μm
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

MECHANICAL AND THERMAL PERFORMANCES

DESCRIPTION	VALUES	REFERENCES
Tensile Strength	Load 2000N for 10 minutes .Variation of attenuation≤0.1dB	IEC 60794-1-2-E1A IEC 60794-1-2-E1B
Crush Test	Load 2000N for 3 minutes .Variation of attenuation≤0.1dB	IEC 60794-1-2-E3 IEC 60794-2-50
Impact 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

Kink Test	No kink with loop diameter of 10 mm	IEC 60794-1-2-E10
Tight buffer removal	Length of 0.3m in a single operation	IEC 60794-1-2-E5 IEC 60794-1-32
Outer sheath removal	Load $\leq 15\text{N}$ for removing sheath	IEC 60794-2-50 IEC 60793-2-50-E21
Thermal Cycles	Range $-40^{\circ}\text{C}/+70^{\circ}\text{C}$ @ 1550nm .Variation of attenuation $\leq 0.1\text{dB}$	IEC 60794-1-2-F1 IEC 60794-2-20
UV Resistant	$\pm 30\%$ after aging	CEI EN 50289-4-17 Method A

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 with zero meter. The accuracy of the measurement of length marking shall be held within the limits of $\pm 1\%$.

- a) Type of wire
- b) Year and month of manufacture
- c) Length marking each meter along the wire

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