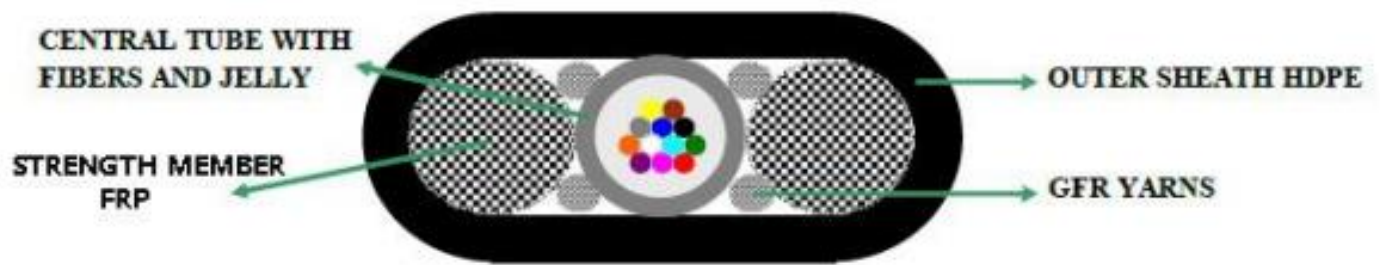


LanPlus+



Cable structure and parameters

Count of fibers		4	12
Fiber type		ITU-T G.652D	
Gel-filled Loose Tube	Material	PBT	
	Diameter (± 0.06) mm	1.6	1.9
	Thickness (± 0.03) mm	0.32	
No. of fibers per Loose Tube		4	12
Strength Member 1	Material	G-FRP	
	Diameter (± 0.05) mm	1.6	1.8
	No.	2pcs	
Strength Member 2	Material	glass yarn	
Outer Sheath	Material	HDPE	
Cable Diameter (± 0.2) mm		8.1*4.6mm	
Cable Weight (± 2) kg		38	
Min.bending radius	Without Tension	10× Cable- ϕ	
	Under Maximum Tension	20× Cable- ϕ	
Temperature range ($^{\circ}\text{C}$)	Installation	-20~+60	
	Transport&Storage	-20~+70	
	Operation	-20~+70	

Application

NO.	Item	Requirement		
1	Allowable Tensile Strength	Short Term	1400N	1500N
		Long Term	400 N	500N
2	Allowable Crush Resistance	Short Term	800 (/100mm)	
		Long Term	300 (/100mm)	

Fiber & Tube Colors

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No.	7	8	9	10	11	12
Color	Red		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 @ 1383 nm @ 1550 nm @ 1625 nm	≤ 0.36 dB/km ≤ 0.32 dB/km ≤ 0.22 dB/km ≤ 0.30 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 @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤ 3.5 ps/(nm. km) ≤ 5.3 ps/(nm. km) ≤ 18 ps/(nm. km) ≤ 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	$\leq 1.0\%$
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

Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain $\leq 0.36\%$ - Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change ≤ 0.05 dB@1550nm - No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Points of impact: 3 - Times of per point: 1 - Impact energy: 5J	- Loss change ≤ 0.1 dB@1550nm - No fiber break and no sheath damage.
Temperature Cycling Test YD/T901-2001-4.4.4.1	- Temperature step: +20°C→-40°C→+70°C →+20°C - Time per each step: 12 hrs - Number of cycle: 2	- Loss change ≤ 0.05 dB/km@1550 nm - No fiber break and no sheath damage.