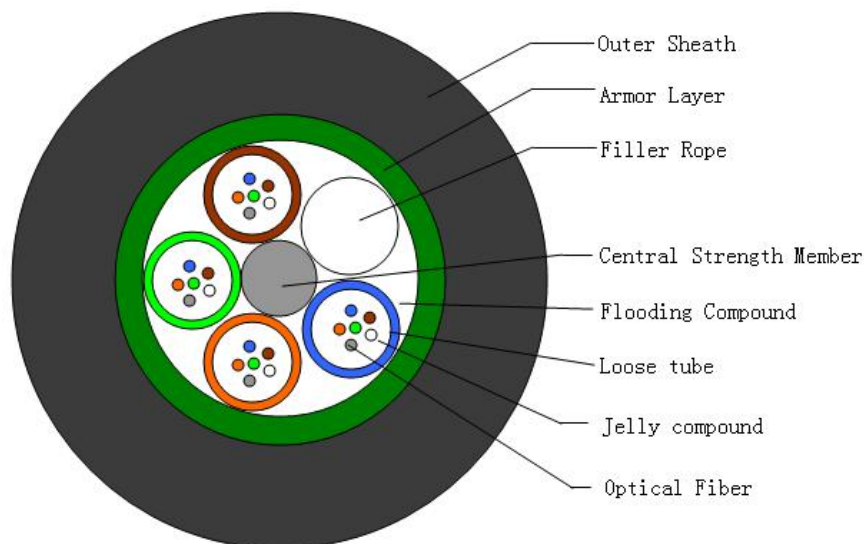


Outdoor Communication Cable(GYTS)

Cable Design



Technical data

No. of cable		4-24	48
Fiber Model		G.652D	
Design(StrengthMember+Tube&Filler)		1+5	
Central Strength Member	Material	Steel Wire	
	Diameter (± 0.05) mm	1.3	1.4
Loose Tube	Material	PBT	
	Diameter (± 0.06) mm	1.55	1.8
	Thickness (± 0.03) mm	0.2	0.3
	The Max.Core NO./Tube	6	12
Filler Rope	Material	LDPE	
	Colour	White	
	Diameter (± 0.06) mm	1.55	1.8
Water Blocking layer (Material)		Flooding Compound	
Armoring	Material	Steel Strip	
	Thickness (± 0.03) mm	0.2	
Outer Sheath	Material	MDPE	
	Thickness (± 0.2) mm	1.5	1.5
Cable Diameter (± 0.2) mm		8.4	9.0
Cable Weight (± 5) kg		73	85
Min.	Without Tension	10.0 \times Cable- ϕ	



bending radius	Under Maximum Tension	20.0×Cable-φ
Temperature range (°C)	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

Fibre Colors

NO.	1	2	3	4	5	6
Colour	Blue	orange	green	brown	gray	white
						
	red	black	Yellow	Violet	Pink	Aqua
						

Loose Tube Colors

NO.	1	2	3	4
Colour	Blue	orange	green	brown
				

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

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	0.30 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	≤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)



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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

Application:

NO.	Item		Requirement
1	Allowable Tensile Strength	Short Term	1500 N
		Long Term	600 N
2	Allowable Crush Resistance	Short Term	1000 (N/100mm)
		Long Term	300 (N/100mm)

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 0.33% - 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 ≤ 0.05dB@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 ≤ 0.1dB@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.

Sheath marking

The color of marking is white, but if the remarking is necessary, the **white color** marking shall be printed newly on a different position.

An occasional unclear of length marking is permitted if both of the neighboring markings are clear.



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The both cable ends are sealed with heat shrinkable end caps to prevent water ingress.