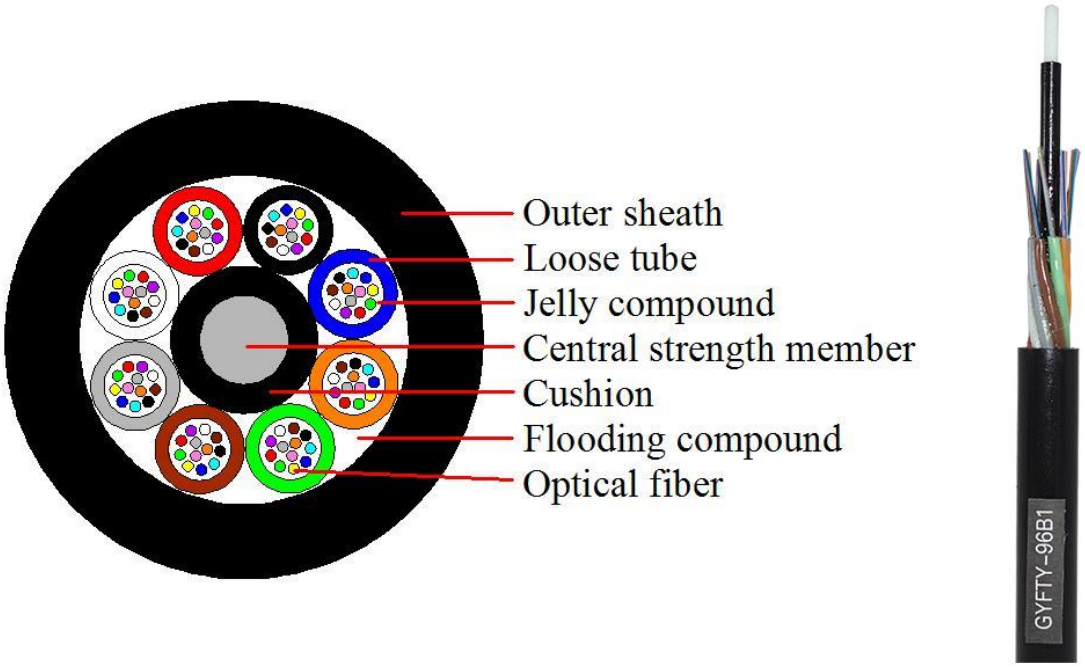
Outdoor Communication Cable (GYFTY)

Cable Design



Technical data

No. of cable		96
Fiber Model		G652D
Design (Strength Member +Tube)		1+8
Central Strength Member	Material	FRP
	Diameter（±0.05）mm	2.1
Cushion	Material	PE
	Thickness（±0.03）mm	0.65
Loose Tube	Material	PBT
	Diameter（±0.06）mm	2.1
	Thickness（±0.03）mm	0.35
	The Max. Core NO./Tube	12
Water Blocking layer（Material）		Flooding Compound
Outer Sheath	Material	HDPE
	Thickness（±0.2）mm	1.8
Cable Diameter（±0.2）mm		11.2
Cable Weight（±5）kg/km		90
Min. bending radius	Without Tension	10.0×Cable-φ
	Under Maximum Tension	20.0×Cable-φ

Temperature range （℃）	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

Application:

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

Fibre & Loose Tube Colours

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 @ 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)
PMD_Q (Quadrature average*)	≤0.2 ps/km$^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
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 ≤ 0.15% - 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: +20ºC→-40ºC→+70ºC →+20ºC - 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.
The both cable ends are sealed with heat shrinkable end caps to prevent water ingress.