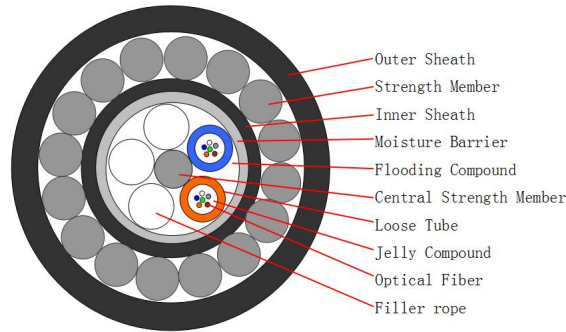




Direct Buried Fiber Optical Cable GYTA33 Water-proof Optical Cable

SM G652D 96 144 Core PE

Cable Design



Technical data

No. of cable		12	24	36	48	72	144
Number of fibers per tube		12					
Number of loose tube		1	2	4	6	8	12
Number of fillers		5	4	2	0	0	0
Design(StrengthMember+Tube&Filler)		1+5					
Central Strength Member	Material	Steel Wire/FRP					
Strength Member	Material	Kevlar yarn					
Additional Sheath	Material	PE					
Loose Tube	Material	PBT					
	Diameter (±0.06) mm	2.0					
	Thickness (±0.03) mm	0.20					
Filler rope	Material	PE					
Water Blocking layer (Material)		Flooding Compound					
Moisture Barrier	Material	Polymer Coated Aluminum Tape					
Inner Sheath	Material	PE					
	diameter(mm)	8.0		9.6		12.0	
Strength Member	Material	Galvanized steel wire					
	Diameter (±0.05) mm	1.2					
Outer Sheath	Material	PE					
	Thickness (±0.2) mm	2.0					
	diameter(mm)	12.0 ± 0.5			13.5 ± 0.5		15.8 ± 0.5
Cable Diameter (±0.2) mm		12.8	12.8	13.2	14.2	18.9	
Cable Weight (±20) kg/km		268	287	318	334	583	
Min. bending radius	Without Tension	12.5×Cable-φ					
	Under Maximum Tension	25×Cable-φ					
Temperature range	Installation	-20~+60					

(°C)	Transport&Storage	-40~+70
	Operation	-40~+70

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	≤ 0.35 dB/km ≤ 0.34dB/km ≤ 0.21 dB/km ≤ 0.24 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	≤ 0.6um
Cladding diameter	125.0 ± 1 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
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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 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 ±1%.

- a) Manufacturer's name
- b) Type of wire
- c) Year and month of manufacture
- d) Length marking each meter along the wire