Steel Tape Layer Loose Tube Outdoor Cable GYTS

1. Cable Description

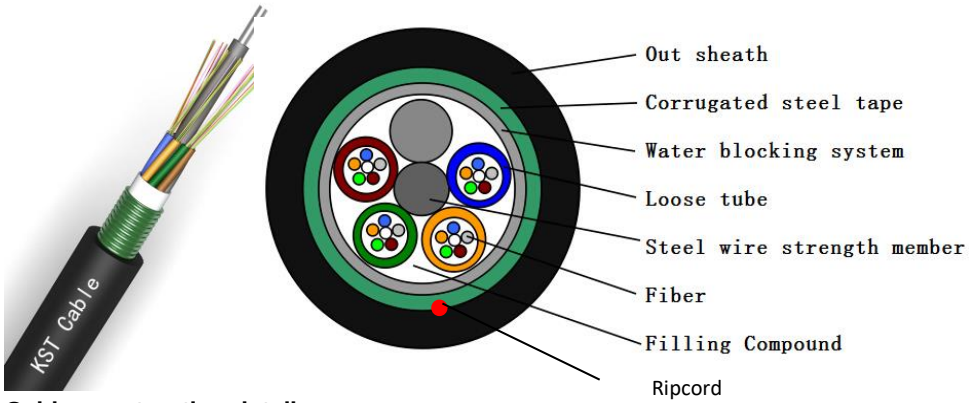
The fibers, single mode or muti mode , are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A steel wire, sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. The PSP is longitudinally applied over the cable core, which is filled with the filling compound to protect it from water ingress. The cable is completed with a PE sheath.

2.Application

· Adopted to outdoor distribution;
· Suitable for aerial, pipeline laying method;
· Long distance and local area network communication.

3. Characteristics

· Good mechanical and temperature performance
· High strength loose tube that is hydrolysis resistant
· Special tube filling compound ensure a critical protection of fiber
· Crush resistance and flexibility
· PE sheath protects cable from ultraviolet radiation
· The following measures are taken to ensure the cable watertight:
· Steel wire used as the central strength member
· Loose tube filling compound and 100% cable core filling
· PSP enhancing moisture-proof



4.Cable construction details

Number of fiber	48 core	
Moisture Barrier	Water blocking system	
Central strength member	Material	Steel wire or FRP
	size	1.4mm
Loose tube	material	PBT
	diameter	Φ2.0(outer/inner)
Tube-filling	Tube filling compound	
Armoring	Material	Corrugated steel tape
Outer sheath	material	PE
	Thickness	1.70±0.2mm

5. Fiber and tube color

Tube color	1	2	3	4		
	Blue	Orange	Green	Brown		
Fiber color	1	2	3	4	5	6
	Blue	Orange	Green	Brown	Grey	White
	7	8	9	10	11	12
	Red	Black	Yellow	Violet	Pink	Aqua

6.Cable Mechanical characteristic

core	Cable diameter	weight
48 cores	9.5±0.3mm	105±5kg/km
Min Bending Radius(mm)	Long term	10D
Min BendingRadius(mm)	Short term	20D
Min allowable Tensile Strength(N)	Long term	600
Min allowable Tensile Strength(N)	Short term	1500
Crush Load (N/100mm)	Long term	300
Crush Load (N/100mm)	short term	1000
Operationtemperature （℃）	-40+70	
Installationtemperature （℃）	-20+60	

7.Fiber characteristic

Fiber style		Unit	SM G652	SM G652D	MM 50/125	MM 62.5/125	MM OM3-300
condition		nm	1310/1550	1310/155	850/1300	850/1300	850/1300
attenuation		dB/km	≤	≤	≤	≤3.0/1.0	≤3.0/1.0
			0.36/0.23	0.34/0.22	3.0/1.0	----	----
Dispresion	1550nm	Ps/(nm*km)	----	≤18	----	----	Dispresion
	1625nm	Ps/(nm*km)	----	≤22	----	----	
Bandwith	850nm	MHZ.KM	----	----	≧400	≧160	Bandwith
	1300nm	MHZ.KM	----	----	≧800	≧500	
Zero dispersion wavelength		nm	1300-1324	≧1302, ≤1322	----	----	≧ 1295, ≤1320
Zero dispresion slope		nm	≤0.092	≤0.091	----	----	----
PMD Maximum Individual Fibr			≤0.2	≤0.2	----	----	≤0.11
PMD Design Link Value		Ps(nm2*km)	≤0.12	≤0.08	----	----	----
Fibre cutoff wavelength λc		nm	≧ 1180, ≤1330	≧1180, ≤1330	----	----	----
Cable sutoffwavelength λcc		nm	≤1260	≤1260	----	----	----
MFD	1310nm	um	9.2+/-0.4	9.2+/-0.4	----	----	----
	1550nm	um	10.4+/-0.8	10.4+/-0.8	----	----	----
Numerical Aperture(NA)			----	----	0.200+/-0.015	0.275+/-0.015	0.200+/-0.015
Step(mean of bidirectional measurement)		dB	≤0.05	≤0.05	≤0.10	≤0.10	≤0.10
Irregularities over fiber length and point		dB	≤0.05	≤0.05	≤0.10	≤0.10	≤0.10
Dicontinuity							
Difference backscatter coefficient		dB/km	≤0.05	≤0.03	≤0.08	≤0.10	≤0.08
Attenuation uniformity		dB/km	≤0.01	≤0.01			
Core dimater		um			50+/-1.0	62.5+/-2.5	50+/-1.0
Cladding diameter		um	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1	125.0+/-0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0	≤1.0	≤1.0
Coating diameter		um	242+/-7	242+/-7	242+/-7	242+/-7	242+/-7

Coating/chaffinch concentrically error	um	⩽12.0	⩽12.0	⩽12.0	⩽12.0	⩽12.0
Coating non circularity	%	⩽6.0	⩽6.0	⩽6.0	⩽6.0	⩽6.0
Core/cladding conentricity error	um	⩽0.6	⩽0.6	⩽1.5	⩽1.5	⩽1.5
Curl(radius)	um	⩽4	⩽4	----	----	----

8.Package

1.**Packing material:** Wooden drum