



## 1. Cable Description

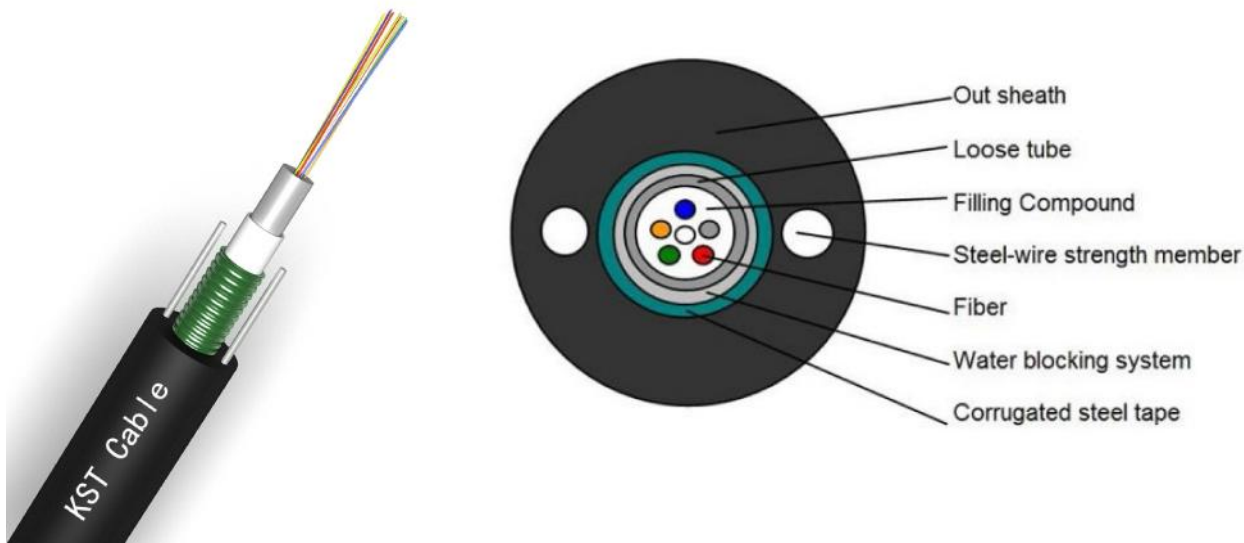
The fibers are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. The tube is wrapped with a layer of corrugated steel tape. Between the corrugated steel tape and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape. The cable is completed with a polyethylene (PE) sheath.

## 2. Application

This specification covers the general requirements of Central Loose Tube Outdoor Cable for aerial or duct.

## 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.
- Two parallel steel wires ensure tensile strength.
- Small diameter, light weight and friendly installation.



## 4. Cable construction details

Number of fiber	4core	
Loose tube	material	PBT
	diameter	2.2(outer/inner)
Tube-filling	Tube filling compound	
Steel wire	size	0.8mm
	Number	2
Outer sheath	material	PE
	Thickness	1.8±0.2mm

## Fiber color

Number of fiber per tube4cores	1	2	3	4		
	Blue	Orange	Green	Brown		

## 6.Cable Mechanical characteristic

core	Cable diameter	weight
4	8.0mm+/-0.3mm	65kg/km+/-10kg
Temperature range	-40+70	-----
Min Bending Radius(mm)	Long term	10D
Min BendingRadius(mm)	Short term	20D
Min allowable Tensile Strength(N)	Long term	1200
Min allowable Tensile Strength(N)	Short term	1500
Operationtemperature (°C)	-40+70	
Installationtemperature (°C)	-20+60	
Storage temprature (°C)	-40+70	

## 7.Fiber characteristic

Fiber style	Unit	SM G652	SM G652D	MM 50/125	MM 62.5/125	MM OM3-300
condition	nm	1310/1550	1310/1550	850/1300	850/1300	850/1300
attenuation	dB/km	≤ 0.36/0.23	≤ 0.34/0.22	≤ 3.0/1.0	≤3.0/1.0	≤3.0/1.0
Dispersion	1550nm	Ps/(nm*km)	≤18	----	----	Dispersion
	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 dispersion slope	nm	≤0.092	≤0.091	----	----	----
PMD Maximum Individual Fibr		≤0.2	≤0.2	----	----	≤0.11
PMD Design Link Value	Ps(nm <sup>2</sup> *k m)	≤0.12	≤0.08	----	----	----
Fibre cutoff wavelength c	nm	≥1180, ≤1330	≥1180, ≤1330	----	----	----
Cable sutoffwavelength cc	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 concentricity 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 concentricity error	um	≤0.6	≤0.6	≤1.5	≤1.5	≤1.5
Curl(radius)	um	≤4	≤4	----	----	----

## 8.Package

1.Packing material: Wooden drum

2.Packing length: standard length of cable shall be 2 km. Other cable length is also available if required by customer

## 9. Cable marking and cable reel marking

The cable sheath shall be marked with white characters according to customer's requirement.

