

### 1. Cable Description

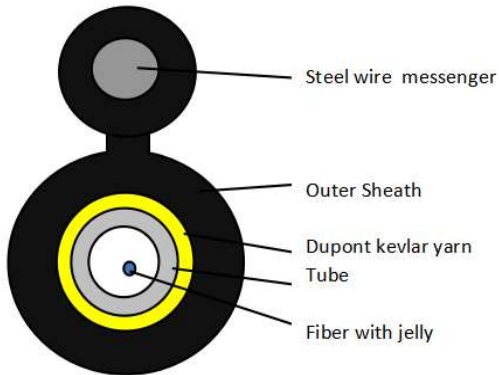
The fibers, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. kevlar inside outer jacket . This part of cable companied with the wires as the supporting part are completed with LSZH sheath to be figure 8 structure.

### 2.Application

This specification covers the general requirements of Figure 8 self-supporting Center Tube Optical cable for aerial .overhead

### 3. Characteristics

- 1.Non-metal strength has an excellent anti-electromagnet ability
2. Proven loose tube design for good performance
3. Excellent mechanical and environmental characteristics
4. Good flexibility and bending performance
5. Small outer diameter,light weigh easy to installation



### 4.Cable construction details

Number of fiber	1core	
Loose tube	material	PBT
	diameter	2.8mm±0.2mm
self-support steel wire diamet	1.4mm	
Overall cable diameter	3.8 (±0.2) -6.5 (±0.3) mm	
Cable weight per km	81kg/km±5kg	

## 5. Fiber color

Number of fiber per tube 8cores	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
1	3.8 (±0.2) -6.5 (±0.3) mm	81kg/km±5kg
Temperature range	-40+70	-----
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	1000m
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	≤	≤	≤	≤3.0/1.0	≤3.0/1.0
		0.36/0.23	0.34/0.22	3.0/1.0	----	----
Dispersion	1550nm	Ps/(nm*km)	----	≤18	----	----
	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(nm <sup>2</sup> *k m)	≤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 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
Curli(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