

# **SPECIFICATION**

**FOR**

**FTTH CABLE**

**Single mode 1/2/4/6/8/12core LSZH**

## 1. Scope of applications

The specifications are suitable for the general requirements of fiber optic telecommunicating and FTTH application.

### Cable description

Construction: coloured optical fibers, 2 parallel FRP(Fiber Reinforced Plastic) strength member, LSZH Jacket

## 2. Optical fiber

Optical, mechanical and geometrical parameters table of optical fiber (G652), see

Table 1

Items	Units	Specifications
Attenuation	dB/km	$\leq 0.4$ at 1310nm $\leq 0.3$ at 1550nm
Chromatic Dispersion	Ps/nm.km	$\leq 3.5$ at 1285~1330nm $\leq 18.0$ at 1550nm
Zero Dispersion Wavelength	Nm	1302~1322
Zero Dispersion Slope	Ps/nm.km	$\leq 0.095$
Cut-off Wavelength	Nm	$\leq 1260$
Mode Field Diameter (MFD)	Um	1310 $9.2 \pm 0.4$ 1550 $10.4 \pm 0.8$
Mode Field Concentricity	Um	$\leq 0.8$
Cladding Diameter	um	$125 \pm 1.0$
Cladding Non-circularity	%	$\leq 1$
Coating Cladding concentricity error	Um	$\leq 12$
Coating Diameter	um	$245 \pm 10$
Proof test	kpsi	$\geq 100$

### 3. Optical fiber cable

Construction of optical fiber cable, see

Table 2

Items	Description
No. of fiber	1/2/4/6/8/12
Fiber model no.	Single mode: G.652
Fiber colour	blue/orange/green/brown/grey/white/red/black/yellow/ purple/pink/aqua
Outer diameter of colour coating	250 ± 15um
Dielectric strength member	FRP
Jacket	LSZH
Colour of Jacket	White / Black

#### Mechanical and environmental data:

Temperature range	Storage/Shipping Temperature range Operating temperature range	°C	-10°C-- +75°C
Min.Bending Radius (mm)	Dynamic	mm	20H
Min.Bending Radius (mm)	Static	mm	10H
Max.Tension (N)	Short-term	N	60
Max.Tension (N)	Long-term	N	30
Max.Crushing Resistance (N/100mm <sup>2</sup> )		N/100mm <sup>2</sup>	500

#### **4. Packing and markings**

Printings on optical fiber cable

White printings are printed at intervals of 1 metre with the following information. Clients can select their own wordings.

1. Metre marks
2. Type of cable and fiber count
3. Name of Manufacturer
4. Year of manufacture

Packing of optical fiber cable

Standard length is 1KM, other lengths subject to negotiation

Wooden reel

Contents of sticker on the wooden reel are as below:

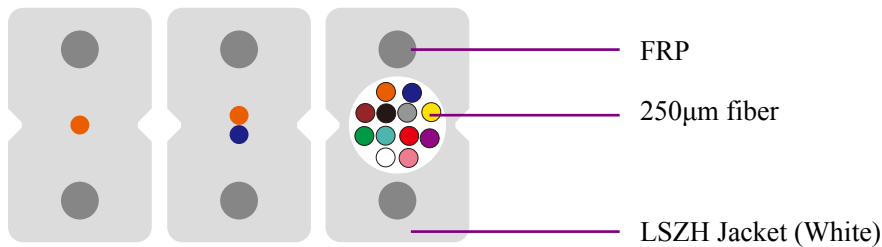
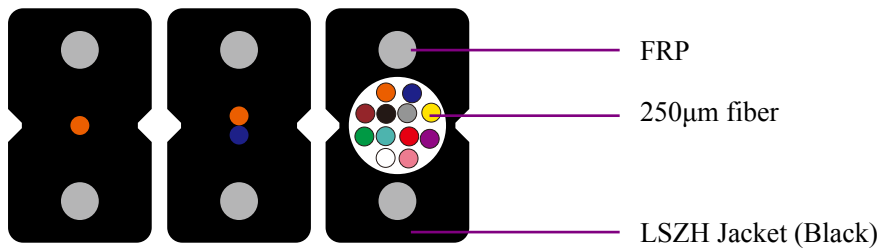
1. Type of cable, fiber count
2. Length
3. Gross weight KGS
4. Reel no.
5. Year of manufacture

Diameter, weight, minimum bending radius of optical fiber cable

No. of fibers	Approx. Cable outer diameter $\pm 0.2\text{MM}$	Approx. weight of cable Kg/KM	Minimum bending radius MM	
			No load	Under load
1/2/4	3.1MM*1.9MM	10.0	10	20
4/6	2.5MM*4.0MM	14.5	10	20
8/12	4.8MM*3.0MM	16.0	10	20

The actual weight and diameter of the cable can differ from the above values

Cross sectional drawings of cable



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