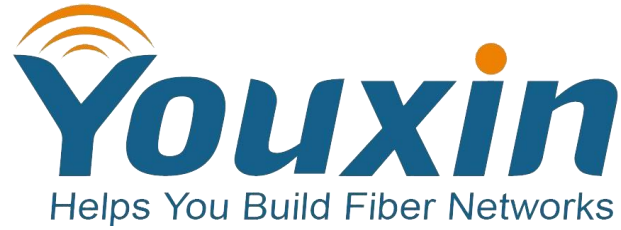


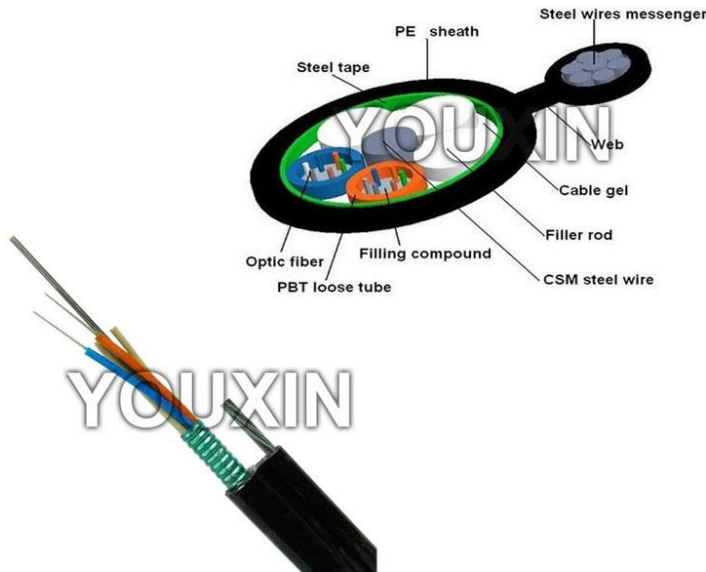
Ningbo Youxin Optic-Electronic Technology Co.,Ltd



TECHNICAL DATA SHEET FOR
Outdoor Single Mode Fiber Optic Cable
GYTC8S (G.652D)

1.1 Cable Cross-section

GYTC8S Outdoor optical fiber cable



YOUXIN	2013	GYTC8S	YOUXIN	XXXXM
YOUXIN	: Manufacturer's Brand			
2013	: Manufacture Year			
GYTC8S	: Cable Type			
XXCORE	: XX cores single-model optical fiber			
XXXXM	: Mark per Meter			

Remark: **【**The printing can be changed according to your need.**】**

2 The color of marking is white, but if the remarking is necessary, the yellow color marking shall be printed newly on a different position.

2.3 An occasional unclear of length marking is permitted if both of the neighboring markings are clear.

2.4 The both cable ends are sealed with heat shrinkable end caps to prevent water ingress.

2.5 Fiber and loose tube color code:

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Grey	Natural
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

2.6 Structure and specification details

Items		unit	Details
Fiber counts		--	12
Optical fiber	Type	--	G. 652D
Loose tube	Material	--	PBT
	Diameter	mm(± 0.2)	1.85
	Structure	--	1+5
Corrugated steel tape		--	YES
Central strength member		--	Steel wire
Cable diameter		mm (± 0.3)	9.3
Tension		N	3500
Crush		N/100mm	1000
Min. Bending radius	Short term		20 times cable diameter
	Long term		10 times cable diameter
Temperature range	Storage		-50°C to 70°C
	Operation		-40°C to 60°C
Application			Long-distance communications and communication between

Remark: **【Mechanical sizes are nominal values】**

2.7 Main technical specification of optical fiber (G.652D)

Characteristics	Specified values
Attenuation	
1310nm (dB/km)	≤ 0.36
1550nm (dB/km)	≤ 0.22
Max increased attenuation compare with attenuation at 1310 with 1285-1330 (dB/km)	≤ 0.05
Max increased attenuation compare with attenuation at 1550 with 1480-1580 (dB/km)	≤ 0.05
Attenuation at the water peak(1383 \pm 3) (dB/km)	≤ 2.0
Discontinuity difference at 1310 and 1550 (dB)	≤ 0.10

Uneven at 1310 and 1550 (dB)	≤0.050
Attenuation difference at both ends (dB/km)	≤0.015(1310)
	≤0.015(1550)
Induced Attenuation (-60℃ to +85℃;-10℃ to +80℃ RH95%; Water Immersion at 23℃;Heat Aging at 85℃) (dB/km)	
1310nm (dB)	≤0.05
1550nm (dB)	≤0.05
Mode-field Diameter	
1310nm (um)	9.2±0.4
1550nm (um)	10.4±1.0
Cut-off Wavelength	
Fiber Cut-off Wavelength	1100-1330
Cable Cut-off Wavelength	≤1260
Dispersion (ps/nm.km)	
1285-1339nm(ps/nm.km)	≤3.5
1270-1360nm(ps/nm.km)	≤5.3
1550nm(ps/nm.km)	≤20
Zero Dispersion Wavelength (nm)	1300—1322
Zero Dispersion Slope ps/(nm ² .km)	≤0.092
Individual Fiber Polarization Mode Dispersion ps/(nm ² .km)	≤0.20
Dimensional Specification	
Cladding Diameter (um)	125±1.0
Core-clad concentricity (um)	≤0.5
Cladding Non-circularity(%)	≤1
Coating Diameter (um)	245±5
Coating-Cladding Concentricity (um)	≤12
Mechanical Specification	
Proof Test (%)	1.0 (0.7Gpa)
Fiber Curl (M)	≥4
Attenuation with Bending	
Induced attenuation after wrapped 100 turns around a mandrel (dB)	≤0.1 (1550nm) Φ60
	≤0.05 (1310nm) Φ60
Induced attenuation after wrapped 1 turns around a mandrel (dB)	≤0.5 (1550nm) Φ32
	/
Other Specification	
Fatigue Resistance Parameter (Nd)	>20
Appearance	Arrange orderly, color brilliance, Cladding is fastness and smoothly, not desquamate

3. Packing and Marking

3.1 Packing

3.1.1 Each single length of cable shall be reeled on Fumigated Wooden Drum suitable for long distance shipment.

3.1.2 Covered by plastic buffer sheet.

3.1.3 Sealed by strong wooden battens.

3.1.4 At least 1 m of inside end of cable will be reserved for testing.

3.1.5 Drum length

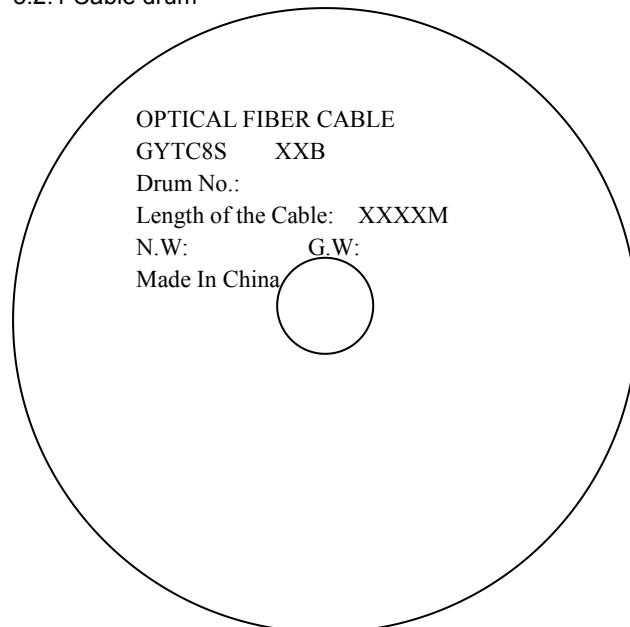
3.1.5.1 Standard drum length is $3000\text{m} \pm 4\%$;

3.1.5.2 Single length not less than 95% of standard length per drum shall be permitted for quantity not exceeding 10% of the total supply;

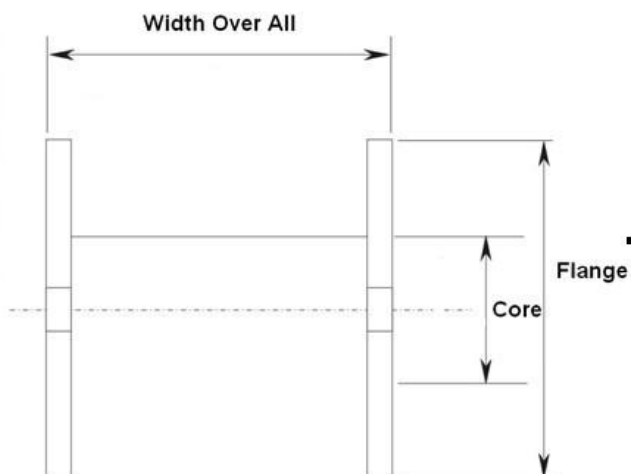
3.1.5.3 Total quantity is at least the ordered quantity.

3.2. Drum Marking

3.2.1 Cable drum



- Manufacturer brand;
- Roll-direction arrow;
- Cable outer end position indicating arrow;
- The word "OPTICAL FIBER CABLE";
- Origin, The word "MADE IN CHINA";
- Caution plate indicating the correct method for loading, unloading and convey the cable;
- Other customer information such as contract no., project no., and delivery destination. (if needed)



3.2.2 Marking plate

- Product name;
- Cable type and size;
- Drum length;
- Gross / Net weight in kilograms;
- Drum number in meters;
- Manufacturer's name;
- Manufacturing year and month;
- Project number, contract number or purchasing order number (if needed).

3.3 Cable identification documents

4. Test requirements

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength 3500N -Sample length:50 meters -Time: 1minutes;	-Fiber strain at maximum Load: max. 0.33% -Attenuation

				increase≤0.10dB
2	Crush test	IEC-60794-1-E3	-Load:1000N -Time: 1 minutes -Length: 100mm	-No splits or cracks in the outer jacket; -Attenuation increase<0.10dB,
3	Impact test	IEC-60794-1-E4	-Impact energy: 450g - Height:1 meter -Impact points: min.1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase≤0.10dB(after the test)
4	Torsion test	IEC-60794-1-E7	-1m cable length with 150N weight -±180°, 10 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10B
5	Repeated bending	IEC-60794-1-E6	-R=20×cable outer diameter -1m cable length with 150N weight,30 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10dB(after the test)
6	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20℃→-40℃→+60℃→-40℃→+60℃→+20℃ -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3℃) ≤0.10dB,
7	Water penetration test	IEC-60794-1-F5	-Water height: 1m -Sample length:3m -Duration of test: 24hrs	-No water leakage at the end of the sample
8	Drip test	IEC-60794-1-E14	-Five 0.3m samples suspended vertically in a climate chamber, raised temperature to +70℃	-No filling compound shall drip from tubes after 24 hr

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-End of Specification-