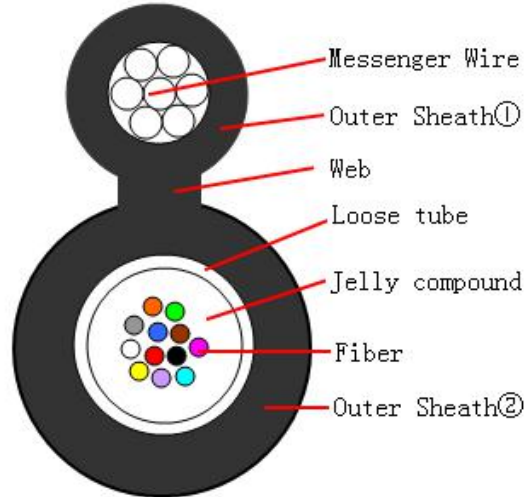


## Self-supporting aerial fiber optical cable (GYXTC8Y)

### Cable Design



### Technical data

No. of cable 光纤芯数		2~24
Fiber Model 光缆型号		G.652D
Loose Tube 松套管	Material 材料	PBT
	Diameter (±0.06) mm 直径	3.0
	Thickness (±0.03) mm 壁厚	0.5
Outer Sheath① 外护套①	Material 材料	MDPE
	Thickness (±0.2) mm 厚度	1.3
Outer Sheath② 外护套②	Material 材料	MDPE
	Thickness (±0.2) mm 厚度	1.5
Web 吊带	Material 材料	MDPE
	Size (±0.5) mm 尺寸	2.5*2.0
Messenger Wire 支持件	Material 材料	Galvanized steel strand 镀锌钢绞线
	Size (±0.1) mm 尺寸	1.0*7
Cable Diameter (±0.5) mm		6.0*14.1

光缆外径		
Cable Weight (±10.0) kg/km 光缆重量		95
Min. bending radius 最小弯曲半径	Without Tension 静态	10.0×Cable-φ
	Under Maximum Tension 动态	20.0×Cable-φ
Temperature range 温度范围 (°C)	Installation 安装	-20~+60
	Transport&Storage 运输和存储	-40~+70
	Operation 工作	-40~+70

**Fibre Color**

No.	1	2	3	4	5	6
Color	Blue 蓝	Orange 橙	Green 绿	Brown 棕	Gray 灰	White 白
No.	7	8	9	10	11	12
Color	Red 红	Black 黑	Yellow 黄	Violet 紫	Pink 粉红	Aqua 青绿
No.	13	14	15	16	17	18
Color	Blue+P 蓝+黑	Orange+P 橙+黑	Green+P 绿+黑	Brown+P 棕+黑	Gray+P 灰+黑	White+P 白+黑
No.	19	20	21	22	23	24
Color	Red+P 红+黑	Natural+P 本+黑	Yellow+P 黄+黑	Violet+P 紫+黑	Pink+P 粉红+黑	Aqua+P 青绿+黑

\* "P" means Point mark

**The properties of single mode optical fiber (ITU-T Rec. G.652.D)  
G.652D**

Item 项目	Specification 数据
Fiber type 光纤型号	Single mode 单模
Attenuation coefficient 衰减 @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	≤ 0.35 dB/km ≤ 0.32 dB/km ≤ 0.21 dB/km ≤ 0.25 dB/km
Point discontinuity 点不连续性	≤ 0.05 dB
Cable cut-off wavelength 截止波长	≤ 1260 nm

Zero-dispersion wavelength 零色散范围	1302~ 1322 nm
Zero-dispersion slope 零色散斜率	≤ 0.092 ps/(nm <sup>2</sup> .km)
Chromatic dispersion 色散系数 @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm	≤3.5 ps/(nm. km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMD <sub>Q</sub> (Quadrature average*)	≤0.2 ps/km <sup>1/2</sup>
Mode field diameter @ 1310 nm 模场直径	9.2±0.4 μm
Core / Clad concentricity error 芯/包同心度误差	≤ 0.5 μm
Cladding diameter 包层直径	125.0 ± 1 μm
Cladding non-circularity 包层不圆度	≤1.0%
Primary coating diameter 涂覆层直径	245 ± 10 μm

### Application:

NO.	Item 项目	Requirement 要求
1	Allowable Tensile Strength 允许拉伸力	5000N
2	Allowable Crush Resistance 允许压扁力	1000 (N/100mm)

### Main mechanical & environmental performance test

Item 项目	Test Method 测试方法	Acceptance Condition 要求
Tensile Strength 拉伸试验 IEC 794-1-2-E1	- Load: 2200N -负载: <b>2200N</b> - Length of cable: about 60m -光缆长度: <b>60m</b>	- Fiber strain ≤ 0.33% -光纤应变≤ <b>0.36%</b> - Loss change ≤ 0.1 dB @1550 nm -损耗变化 ≤ <b>0.1dB@1550 nm</b> - No fiber break and no sheath damage. -光纤不断裂, 光缆外护套不开裂
Crush Test 压扁试验 IEC 60794-1-2-E3	- Load: 2000N/100mm -负载: <b>2000N/100mm</b> - Load time: 1min -负载时间: <b>1 分钟</b>	- Loss change ≤ 0.05dB@1550nm - <b>1550nm 附加衰减≤ 0.05dB</b> - No fiber break and no sheath damage. -光纤不断裂, 光缆外护套不开裂
Impact Test 冲击试验 IEC 60794-1-2-E4	- Points of impact: 3 -试验点位: <b>3 个</b> - Times of per point: 1 -每点位试验次数: <b>1 次</b> - Load: 1kg -负载: <b>1kg</b>	- Loss change ≤ 0.1dB@1550nm - <b>1550nm 附加衰减 ≤ 0.1dB</b> - No fiber break and no sheath damage. -光纤不断裂, 光缆外护套不开裂
Temperature Cycling Test 温度循环试验 YD/T901-2001-4.4.4.1	- Temperature step: 温度变化 +20°C→-40°C→+70°C →+20°C	- Loss change ≤ 0.05 dB/km@1550 nm - <b>1550nm 附加衰减 ≤ 0.05dB</b> - No fiber break and no sheath damage. -光纤不断裂, 光缆外护套不开裂

	<ul style="list-style-type: none"><li>- Time per each step: 12 hrs</li><li>-每次循环时间: 12 小时</li><li>- Number of cycle: 2</li><li>-循环次数: 2 次</li></ul>	
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