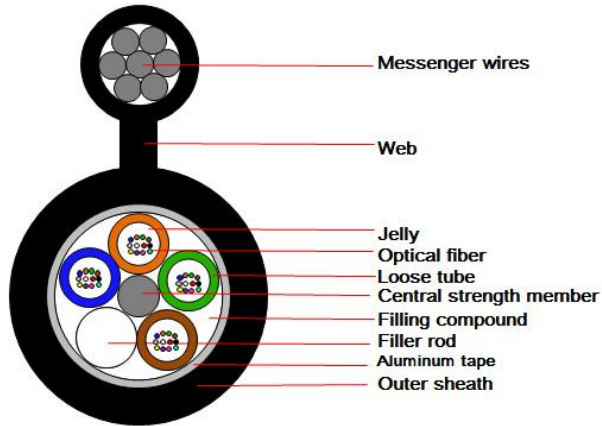


GYTC8A

Outdoor self-supporting optical cable for communication in an "8" shape configuration, featuring a metal reinforcing messenger wire, loose tube stranded and filled, and an aluminum-polyethylene bonded sheath.

Cable cross-section



Cable Specification

1 Introduction

Loose tube construction, tubes jelly filled, elements (tubes and filler rods) laid up around metallic central strength member, filling compound filled in the apertures of the cable core, then aluminum tape and PE outer sheath with messenger wires combined.

2 Fiber color code

Fiber color in each tube starts from No. 1 Blue.

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

3 Color codes for loose tube

Tube color starts from No. 1 Blue.

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Purple	Pink	Aqua

4 Cable structure and parameter

SN	Item	Unit	Value		
1	No. of fibers	count	48	96	144
2	No. of fibers per tube	count	12	12	12
3	No. of elements	count	5	8	12
4	Messenger wires	mm	7*1.0	7*1.0	7*1.0
5	Cable diameter($\pm 5\%$)	mm	9.6	11.9	14.5
6	Cable height($\pm 10\%$)	mm	17.0	19.3	21.9
7	Cable weight($\pm 10\%$)	kg/km	153	202	259

8	Short term tension	N	4000
9	Short term crush	N/100mm	1000

Characteristic of Optical Cable

1 Min. bending radius

Static: 15 x cable diameter

Dynamic: 20 x cable diameter

2 Application temperature range

Operation: - 40°C ~ +60°C

Installation: - 15°C ~ +60°C

Storage/transportation: - 40°C ~ +60°C

3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 794-1-2-E1	- Load: Short term tension - Length of cable: about 50m	- Fiber strain $\leq 0.6\%$ - No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ - No fiber break and no sheath damage.

Characteristic of Optical Fiber

G652D fiber information

Mode field diameter (1310nm):	9.2 μm ±0.4 μm
Mode field diameter (1550nm):	10.4 μm ±0.8 μm
Cut off wavelength of cabled fiber (λ_{cc}):	$\leq 1260\text{nm}$
Attenuation at 1310nm:	$\leq 0.36\text{dB/km}$
Attenuation at 1550nm:	$\leq 0.22\text{dB/km}$
Bending loss at 1550nm (100 turns, 30mm radius):	$\leq 0.05\text{dB}$
Dispersion in the range 1288 to 1339nm:	$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion at 1550nm:	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
Dispersion slope at zero dispersion wavelength:	$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$