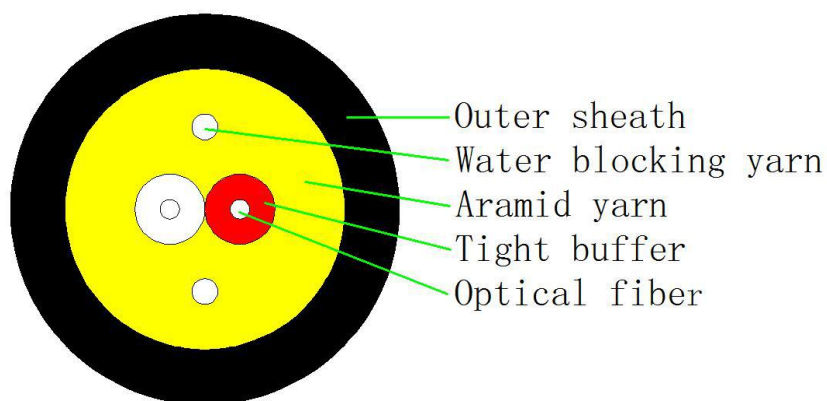


## Round 5mm Outdoor 2Fiber G657A1 Cable(GYFJH)

### Cable Design



### Technical data

No. of cable		2	
Fiber Model		G.657A1	
Tight lines	Material		PVC
	Thickness ( $\pm 0.03$ ) mm		0.32
	Diameter ( $\pm 0.06$ ) mm		0.9
	Colour		White&Red
Strength Member	Material		Aramid Yarn
Outer Sheath	Material		LSZH
	Thickness ( $\pm 0.05$ ) mm		0.8
	Colour		Black
Cable Diameter ( $\pm 0.2$ ) mm			5.0
Cable Weight ( $\pm 1$ ) kg/km			22
Attenuation	1310nm	dB/km	$\leq 0.36$
	1550nm		$\leq 0.22$
Allowable Tensile Strength	Short Term	N	300
	Long Term		180
Allowable Crush Resistance	Short Term	N/100mm	500
	Long Term		100
Min.	Without Tension		$10.0 \times \text{Cable-} \phi$



bending radius	Under Maximum Tension	20.0× Cable- φ
Temperature range (°C)	Installation	-20~+60
	Transport&Storage	-40~+60
	Operation	-40~+60

### Tight lines Colour

No.	1	2
Color	White	Red

### The properties of single mode optical fiber (ITU-T Rec. G.657A1)

Characteristic	condition	data	unit
<b>Optical properties</b>			
Attenuation	1310nm	≤0.35	dB/km
	1383nm(氢老化后)	≤0.35	dB/km
	1490nm	≤0.23	dB/km
	1550nm	≤0.22	dB/km
	1625nm	≤0.23	dB/km
Relative wavelength attenuation @1310nm @1550nm	1285~1330nm	≤0.05	dB/km
	1525~1575nm	≤0.05	dB/km
Dispersion in the wavelength range of	1285~1340nm	≤3.5	ps/(nm.km)
	1550nm	≤18	ps/(nm.km)
Zero dispersion wavelength		1300~1324	nm
A zero-dispersion slope		≤0.092	ps/(nm <sup>2</sup> .km)
Polarization Mode Dispersion Coefficient PMD Single fiber maximum Fiber link value (M=20, Q=0.01%) Typical value		≤0.2	ps/
		≤0.1	ps/
		0.04	ps/
Cable cut-off wavelength (λ <sub>cc</sub> )		≤1260	nm
Mode field diameter (MFD)	1310nm	8.8±0.4	μm
	1550nm	9.8±0.5	μm
Attenuation discontinuities	1310nm	≤0.05	dB
	1550nm	≤0.05	dB



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<b>Geometric characteristics</b>			
Core diameter		125±0.7	μm
Cladding roundness		≤0.7	%
Coating diameter		245±5	μm
Coating / package concentricity error		≤12.0	μm
Core / package concentricity error		≤0.5	μm
The warpage (radius)		≥4	m
<b>Environmental characteristics (1310nm、1550nm、1625nm)</b>			
Temperature additional attenuation	-60℃ ~+85℃	≤0.05	dB/km
Temperature-humidity cycle additional attenuation	-10℃ ~+85℃, 98% Relative humidity	≤0.05	dB/km
Flooding additional attenuation	23℃, 30 days	≤0.05	dB/km
Hot and humid additional attenuation	85℃ 和 85% Relative humidity, 30 days	≤0.05	dB/km
Dry heat aging	85℃	≤0.05	dB/km
<b>Mechanical properties</b>			
Screening tension		≥9.0	N
The macro bend Additional attenuation			
10 CircleΦ30mm	1550nm	≤0.025	dB
10 CircleΦ30mm	1625nm	≤1.0	dB
1 CircleΦ20mm	1550nm	≤0.75	dB
1 CircleΦ20mm	1625nm	≤1.5	dB
Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥20	

### Sheath marking

xxxxxx	GYFJH	XXB6a1 (G.657A1)	=XXXXm	2018
xxxxxx	: Manufacturer's brand			
GYFJH	: Cable type			
XXB6a1 (G.657A1)	: XX cores single-mode optical fiber (ITU-T Rec. G.657A1)			
=XXXXm	: Mark of meters			
2018	: Manufacture year			
<i>*The marking is printed every 1 meter;</i>				



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*\*\*"G.657A1" means ITU-T Rec. Low Water Peak (LWP) G.657 single mode optical fiber.*

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

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

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