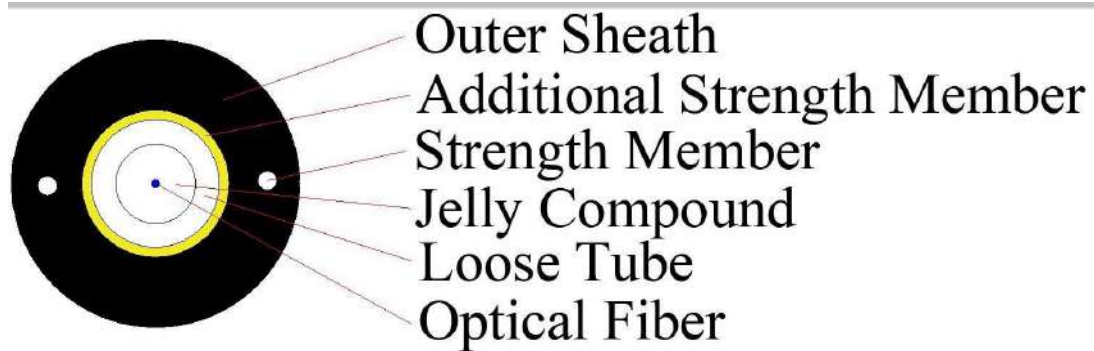


Cable Design



Technical data

No. of cable		1F
Fiber Model		G.657A1
Strength Member	Material	FRP
	Diameter (± 0.05) mm	0.5
	NO.	2
Loose Tube	Material	PBT
	Diameter (± 0.06) mm	2.0
	Thickness (± 0.03) mm	0.31
	The Max.Core NO./Tube	1
Strength Member	Material	Aramid yarn
Outer Sheath	Material	MDPE
Cable Span(m)		≥ 50
Cable Diameter (± 0.2) mm		5.2
Cable Weight (± 5) kg/km		22
Prefabricated Connectors for both side		Sc/upc
Min. bending radius	Without Tension	$10.0 \times \text{Cable-}\phi$
	Under Maximum Tension	$20.0 \times \text{Cable-}\phi$
Temperature range (°C)	Installation	-20~+60
	Transport&Storage	-40~+70
	Operation	-40~+70

Fibre Color

No.	1
Color	Blue

Loose Tube Color

No.	1
Color	White

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

Characteristic	Characteristic	Characteristic	Characteristic
Optical properties			
Attenuation	1310nm 1550 nm 1625 nm	≤ 0.35 ≤ 0.21 ≤ 0.23	dB/km dB/ km dB/ km
Attenuation Value	1310~1625nm	≤ 0.035	dB/km
Difference attenuation between	1285~1310nm 1310nm 1525~1575nm 1550nm 1480~1580nm 1550nm	≤ 0.03 ≤ 0.02 ≤ 0.04	dB/ km dB/ km dB/ km
Macro bending sensibility	@1550 nm @1625 nm @1550 nm @1625 nm	≤ 0.25 ≤ 1.0 ≤ 0.75 ≤ 1.5	Radius 15mm, 10 circle Radius 15mm, 10 circle Radius 10mm, 1 circle Radius 10m m, 1circle
Zero dispersion wavelength		1300~1324	nm
A zero-dispersion slope		≤ 0.092	ps/(nm ² .km)

dispersion coefficient	@1285-1340nm @1550 nm @1625 nm	-3.4-3.4 ≤18.0 ≤22.0	ps/(nm ² .km)
Cable cut-off wavelength (λ_{cc})		≤1260	nm
Mode field diameter (MFD)	1310 nm 1550 nm	8.4-9.2 9.3-10.3	μ m μ m
Attenuation discontinuities	1310 nm 1550 nm	≤0.05 ≤0.05	d B d B
Geometric characteristics			
Core diameter		0.7	μ m
Cladding Diameter		125±0.7	
Cladding roundness		≤0.7	%
Coating diameter		245±7	μ m

Coating / package concentricity error		≤12.0	μ m
Core / package concentricity error		≤0.5	μ m
The warpage (radius)		≥4	m
Environmental characteristics (1310nm, 1550nm, 1625nm)			
Temperature additional attenuation	-60°C ~+85°C	≤0.05	dB/km
Temperature-humidity cycle	-10°C ~+85°C, 85%	≤0.05	dB/km

additional attenuation	Relative humidity, 30 days		
Flooding additional attenuation	23°C, 30 days	≤0.05	dB/km
Hot and humid additional attenuation	85°C和 85% Relative humidity, 30 days	≤0.05	dB/km
Dry heat aging	85°C	≤0.05	dB/km
Mechanical properties			
Screening tension		100kpsi, 1% strain	N
Tensile strength(mid-value)		>550	kpsi

Coating peeling force	Typical average	1.5	N
Dynamic fatigue parameters		≥ 20	

Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin with zero meter. The accuracy of the measurement of length marking shall be held within the limits of $\pm 1\%$.

- a) Manufacturer's name
- b) Type of wire
- c) Year and month of manufacture
- d) Length marking each meter along the wire