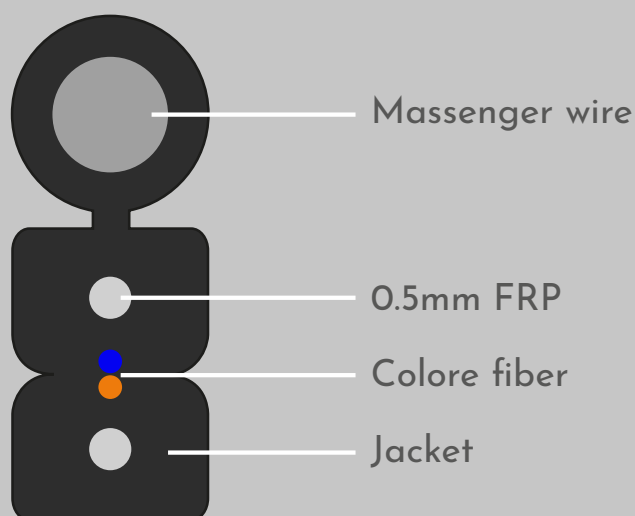




CROSS SECTION



DIMENSIONS AND DESCRIPTIONS OF CABLE CONSTRUCTIONS

Item	Contents	Value
Fiber	Type	G.657A2/G.657A1
	Diameter (mm)	0.25
	Color	Blue, orange
	Count	2
Strength membe	Material	FRP (Fiber Reinforced Plastic)
	Diameter (mm)	0.4±0.05
	Count	2
Outer sheath	Material	LSZH
	Color	Black
Messenger wire	Material	Phosphatized steel wire
	Diameter (mm)	1.0 ± 05
Cable dimension (mm) (H*L)		2.0 (±0.2) × 5.0 (±0.2)



Optical properties of the SM fiber are achieved through a germanium doped silica core with a pure silica cladding which meets ITU-T G657 and IEC 60793-2-50, UV curable acrylate protective coating is applied over the glass cladding to provide the necessary maximum fiber lifetime.

Geometrical, optical, and mechanical characteristics of fiber in cable as the following table:

GEOMETRY CHARACTERISTICS

Characteristics	Specified values		Units
SMF type	G.657A1	G.657A2	
Cladding Diameter	125 ± 0.7		[μm]
Cladding Non-Circularity	≤ 1		[%]
Coating Diameter(uncolored)	245 ± 10		[μm]
Coating Diameter(colored)	250 ± 15		[μm]
Core--Cladding Concentricity Error	≤ 0.5		[μm]
Coating--Cladding Concentricity Error	≤ 12.5	≤ 12.5	[μm]

OPTICAL CHARACTERISTICS

Characteristics	Condi tions	Specified values		Units
SMF type		G.657A1	G.657A2	
	1310 nm	≤0.35	≤0.35	[dB/km]
	1383 nm	≤0.35	≤0.35	[dB/km]
	1550 nm	≤0.21	≤0.21	[dB/km]
Attenuation before cable	1625 nm	≤0.23	≤0.23	[dB/km]
	1310 nm	≤0.4	≤0.4	[dB/km]
	1383 nm	≤0.4	≤0.4	[dB/km]
	1550 nm	≤0.3	≤0.3	[dB/km]
Attenuation after cable	1625 nm	≤0.35	≤0.35	[dB/km]
Zero Dispersion Wavelength(λ0)		1300-1324	1300-1324	[nm]
Zero Dispersion Slope(S0)		≤ 0.092	≤ 0.092	[ps/(nm ² ·k m)]
PMDQ		≤ 0.1	≤ 0.1	[ps/√km]
Cable Cutoff Wavelength (λCC)		≤1260	≤1260	[nm]
Mode Field Diameter (MFD)	1310nm	(8.6~9.2) ± 0.4	(8.6~9.2) ± 0.4	[μm]



MACRO BENDING LOSS

Characteristics	Condi tions	Specified values		Units
SMF type		G.657A1	G.657A2	
100 Turns @ 30 mm Radius	1550 nm	-	-	[dB]
	1625 nm	-	-	[dB]
10 Turns @ 15 mm Radius	1550 nm	≤0.25	≤0.03	[dB]
	1625 nm	≤1.0	≤0.1	[dB]
1 Turns @ 10 mm Radius	1550 nm	≤0.75	≤0.1	[dB]
	1625 nm	≤1.5	≤0.2	[dB]
1 Turns @ 7.5 mm Radius	1550 nm	-	≤0.5	[dB]
	1625 nm	-	≤1.0	[dB]
1 Turns @ 5 mm Radius	1550 nm	-	-	[dB]
	1625 nm	-	-	[dB]

MECHANICAL SPECIFICATION

Characteristics	Condi tions	Specified values		Units
SMF type		G.657A1	G.657A2	
Proof Test	-	≥ 100		[kpsi]
	-	≥ 0.69		[GPa]
Coating Strip Force	Average value	1~5N		[N]
	Peak value	1.0~8.9N		[N]
Transportation and storage temperature	-	-40°C ~ +70°C		[°C]
Installation temperature	-	-5°C ~ +60°C		[°C]
Operation temperature	-	-40°C ~ +70°C		[°C]
Minimum Allowable Bending Radius	Static	20 mm		[mm]
	Dynamic	40 mm		[mm]