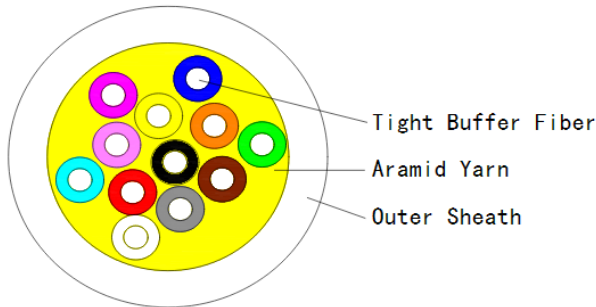


GJFJH

Cable Design



No. of cable	4	8	12
Fiber type	G657A1		
Strength Member	Polyester yarn		
Cable Diameter(mm)	5.0	5.5	6.2
Outer Sheath	LSZH		

Optical fiber characteristics (G657A1 FIBER)

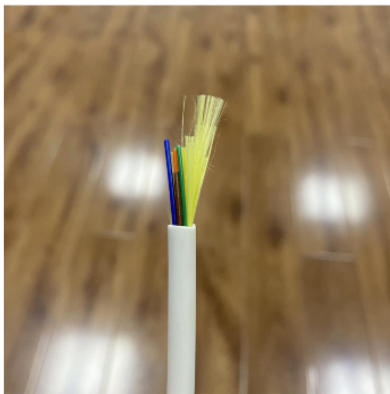
Category	Description		Specifications
			G.657A1
Optical Specifications	Attenuation	@1310nm	≤0.35dB/km
		@1383nm	≤0.35dB/km
		@1550nm	≤0.22dB/km
		@1625nm	≤0.25dB/km
	Attenuation discontinuity		≤0.05 dB
	Attenuation vs. Wavelength	@1285~1330nm	≤0.05 dB/km
		@1525~1575nm	≤0.05 dB/km
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		≤0.092ps/(nm ² .km)
	Dispersion	@1310nm	≤3.5 ps/nm.km
		@1550nm	≤18 ps/nm.km
	Polarization Mode Dispersion(PMD)		≤0.2ps/km ^{1/2}
	Cable Cutoff Wavelength(λ _{cc})		≤1260nm
Effective Group Index of Refraction	@1310nm	1.4675	
	@1550nm	1.4681	
Macro bend loss (30mm radius ,100turns) 1625nm		≤0.1 dB	
Geometric Specifications	Mode Field Diameter	@1310nm	9.2±0.6μm
		@1550nm	10.4±0.8μm
	Cladding Diameter		125±1μm
	Cladding Non-Circularity		≤1.0%
	Coating Diameter		245±5μm
	Coating/Cladding Concentricity Error		≤8μm
Core/Cladding Concentricity Error		≤0.8μm	
Mechanical Specifications	Proof Test level		≥1.0%
	Fiber Curl Radius		≥4.0m
	Peak Coating Strip Force		1.3~8.9N

Technical data

No. of cable			4	8	12
Outer Sheath	Material	mm	LSZH		
	Thickness		0.8 (nominal)		
	color		white.		
Cable Weight(± 10.0 kg/km)		kg/km	20	28	36
Max Tensile Load	Short Term	N	200		
	Long Term		150		
Crush Resistance	Short Term	N/100	≥ 1000		
	Long Term	mm	≥ 300		
Attenuation	1310nm	dB/km	≤ 0.35		
	1550nm		≤ 0.21		
Min. bending radius	Without Tension	mm	$10.0 \times \text{Cable-}\phi$		
	Under Maximum Tension		$20.0 \times \text{Cable-}\phi$		
Temperature range (°C)	Installation	°C	-20~+60		
	Transport&Storage		-40~+70		
	Operation		-40~+70		

Identification

No.	1	2	3	4	5	6	7	8	9	10	11	12
Color	blue	orange	green	brow	grey	white	red	black	yellow	violet	pink	aqua



Test

Parameter	Test method	Test conditions	Acceptance criteria*
Tensile strength	IEC 60794-1-2-E1	Load: As per cable maximum tensile strength in table above.	Change in Attn <0.05 dB/Km. No damage or rack to cable & no fiber break
Crush	IEC 60794-1-2-E3	Short time: 10 min Long time: 120 min Load: As per maximum crush resistance in table above Number of positions: 3 adjacent sections (ensuring one over tube and one over lay reversal)	
Impact	IEC 60794-1-2-E4	Weight: 1.5 kg Height: 1.0 m Anvil radius: 12.5 mm Impacts: 1	
Torsion	IEC 60794-1-2-E7	Sample length: 1 m Bends: 360° (1turn) clockwise and after measurement (one minute) 720° (2turns) anticlockwise (two minutes)	
Bend	IEC 60794-1-2-E11	Mandrel diameter: 180 mm Bend: 360° (1turn)	
Bend under tension	Concurrent to tensile test IEC 60794-1-2-E18	Mandrel diameter: 360 mm Bend: 360° (1turn)	
Temperature cycling	IEC 60794-1-2-F1	Sample length: 1000 m (minimum) Temperature range: From -10°C to +70°C	

Marking:

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