

FiberHome G.657A2 single mode fiber

FiberHome® G.657A2 bending insensitive single mode optical fiber has low macro-bending sensitivity and low water peak attenuation. It is comprehensively optimized for use in O-E-S-C-L band. It allows for easy installation and is widely use in access network, FTTx networks and special indoor applications.

VAD process provides excellent performance of low PMD index, low splice loss and high reliability.

It complies with or exceeds the specification of ITU-T recommendation of G.652D/G.657A and the IEC 60793-2-50 B6-a type fiber.

G.657A2 fiber characteristics		
Optics specifications		
Attenuation	@1310nm	$\leq 0.36\text{dB/km}$
	@1383nm	$\leq 0.36\text{dB/km}$
	@1550nm	$\leq 0.23\text{dB/km}$
	@1625nm	$\leq 0.25\text{dB/km}$
Dispersion	@1550nm	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
	@1625nm	$\leq 22\text{ps}/(\text{nm}\cdot\text{km})$
Zero-Dispersion wavelength		1300nm~1324nm
Zero-Dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2 \cdot \text{km})$
Mode field diameter (MFD) at 1310nm		$8.6 \pm 0.4\mu\text{m}$
Attenuation uniformity	1280nm-1310nm	$\leq 0.035\text{dB/km}$
	1310nm-1330nm	$\leq 0.03\text{dB/km}$
	1525nm-1550nm	$\leq 0.03\text{dB/km}$
	1550nm-1575nm	$\leq 0.03\text{dB/km}$
PMD	Max. for fiber on the reel	$0.1\text{ps}/\text{km}^{1/2}$
Cable cutoff wavelength $\lambda_{cc}(\text{nm})$		$\leq 1260\text{nm}$
Geometrical characteristics		
Cladding diameter		$125.0 \pm 0.7\mu\text{m}$
Cladding non-circularity		$\leq 0.7\%$
Core/cladding concentricity error		$\leq 0.5\mu\text{m}$
Fiber diameter with coating (uncolored)		$245 \pm 5\mu\text{m}$
Cladding/coating concentricity error		$\leq 12.0\mu\text{m}$
Curl		$\geq 4\text{m}$
Mechanical characteristics		
Proof stress		$\geq 0.7\text{GPa}(100\text{kpsi})$
Macrobend loss at 1550nm	$\Phi 30\text{mm}, 10\text{turn}$	$\leq 0.03\text{dB}$
	$\Phi 15\text{mm}, 1\text{turn}$	$\leq 0.5\text{dB}$
Environmental characteristics (at 1310nm & 1550nm)		
Temperature induced attenuation($-60\sim+85^{\circ}\text{C}$)		$\leq 0.05\text{dB/km}$
Dry heat induced attenuation ($85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 30 days)		$\leq 0.05\text{dB/km}$
Water immersion induced attenuation ($23^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 30 days)		$\leq 0.05\text{dB/km}$
Damp heat induced attenuation ($85^{\circ}\text{C} \pm 2^{\circ}\text{C}$, RH85%, 30 days)		$\leq 0.05\text{dB/km}$

Riser Cable 24FO G.657A2

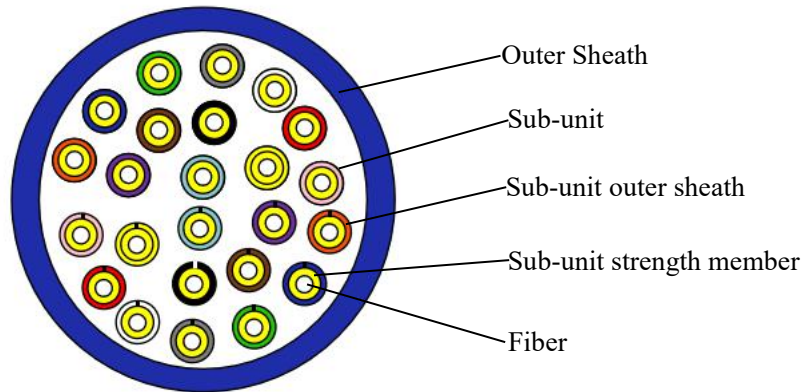


Figure. Cable Cross-Section (A-end)

Item	Material	Description
Outer sheath	LSZH	Blue color, LZSH Nominal thickness 1.2mm
Sub-unit	Optical fiber with Aramid yarn and LSZH sheath	Sub-unit O.D.: 0.90± 0.05mm, Color with: Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Aqua, Blue*, Orange*, Green*, Brown*,Slate*, White*, Red*, Black*, Yellow*, Violet*, Pink*, Aqua*
Sub-unit strength member	Aramid yarns	Aramid strength member
Sub-unit outer sheath	LSZH	LSZH
Fiber	Silicon-based fiber(G.657A2)	bending-loss insensitive single-mode optical fiber
Cable O.D.	8.7 ± 0.3mm	
Cable weight	57 ± 5kg/km	

(*) Sub-unit 13 to 24 will be marked with black rings (Black sub-unit is white color ring).

Cable main mechanical properties and application

Serial No.	Item		Requirement
1	Attenuation	@1310nm	≤0.36dB/km
		@1550nm	≤0.23dB/km
2	Allowable tensile resistance (N)		1200N
3	Allowable crush resistance (N)		400N/100mm
4	Operation temperature		-5 ° C +60 ° C