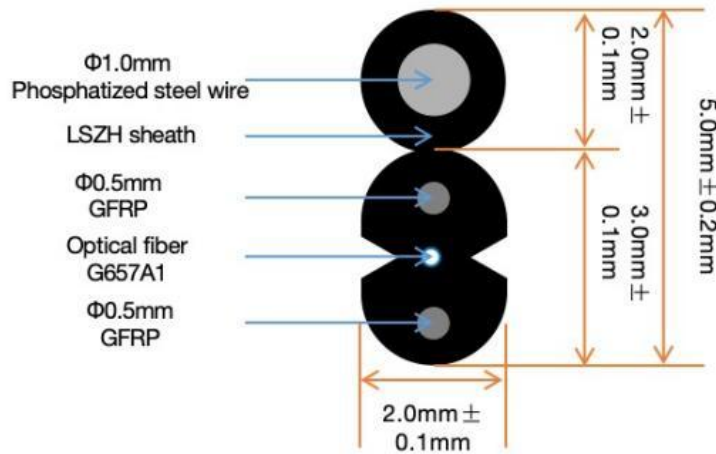


GJYXFCH

Cross Section of Cable



Optical Fiber Type and Properties

G.657A1 Fiber

Category	Description		Specifications
			G.657A1
Optical Specifications	Attenuation	@1310nm	$\leq 0.34\text{dB/km}$
		@1550nm	$\leq 0.22\text{dB/km}$
	Core		Germanium doped silica glass
	Cladding		silica glass
	Primary Coating		2 layers of UV curable resin
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		$\leq 0.092\text{ps}/(\text{nm}^2.\text{km})$
	Dispersion	@1310nm	$\leq 3.5\text{ ps}/\text{nm.km}$
@1550nm		$\leq 18.0\text{ ps}/\text{nm.km}$	

	Cable Cutoff Wavelength(λ_{cc})		$\leq 1260\text{nm}$
	Polarization Mode Dispersion(PMD)		$\leq 0.2\text{ps}/\sqrt{\text{km}}$
	Macro-bend induced attention 10 turns around a mandrel of 15mm radius at 1550nm		$\leq 0.25\text{dB}$
Geometric Specifications	Mode Field Diameter	@1310nm	$8.6\pm 0.4\mu\text{m}$
	Cladding Diameter		$125\pm 1\mu\text{m}$
	Cladding Non-Circularity		$\leq 1.0\%$
	Coating Diameter		$243\pm 7\mu\text{m}$
	Coating/Cladding Concentricity Error		$\leq 8\mu\text{m}$
	Core/Cladding Concentricity Error		$\leq 0.5\mu\text{m}$
Mechanical Specifications	Proof Test level		$\geq 1.0\%$
	Fiber Curl Radius		$\geq 4.0\text{m}$
	Peak Coating Strip Force		1.3~8.9N

Dimensions of Cable Constructions

Item		Parameters
Fiber	Number of cores	1core
Strength member	Material	GFRP
	Diameter	$2*\Phi 0.5\text{mm}$
Messenger wire	Material	Phosphatized steel wire
	Diameter	$\Phi 1.0\text{mm}\pm 0.05$
Jacket material	Material	LSZH
	Color	Black
Cable diameter		$(2.0\pm 0.1)*(5.0\pm 0.2)$
Min. bending radius	Static	15D
	Dynamic	30D
Tensile performance	Short term	600N
Crush	Short term	1500N/100mm
Cable weight(kg/km)	Approx.	17

Mechanical and Environmental Characteristics

Item	Test standard	Spec	Acceptance Criteria
Temperature Range of Storage	—————	-20 to +70°C	—————
Temperature Range of Installation	—————	-10 to +70°C	—————
Temperature Operation	—————	-20 to +70°C	—————
Tensile Load (short term)	IEC 60794-1-2-E1	600N	Fiber strain<0.4% Without residual additional Loss
Crush Resistance	IEC 60794-1-2-E3	1500N/100mm	No fiber breakage
Repeat Bending	IEC 60794-1-2-E6	R=20×cable outer diameter -1m cable length with 30N weight,30 cycles	No damage to the outer jacket -Attenuation increase ≤0.03dB -Reversible
Cable Bend	IEC 60794-1-2-E11B	5×cable Diameter	No fiber breakage
Water Penetration	IEC 60794-1-2-F5	--Water height: 1m, -Sample length:3m, -Duration of test: 24hrs	No water leakage at the end of the sample
Temperature	IEC 60794-1-2-F1	Temperature step: +20°C→-20°C→+70°C→-20°C→+70°C→+20°C	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3°C) ≤0.05dB,
RoHS Compliant	ROHS	—————	—————

Other

Sheath Color	Black color
Sheath Marking	Ink printing on per meter
The length of delivery	1km, 2km per roll or according to the customer's requirement

-End of Specification-