

DROP 1H G657A2 MENSAJERO ACERO 0.5MM ACERO LSZH 1KM

MODELO GJYXCH-1B6A2

Product Description

This specification covers the general requirements and performance of cable, which LANLY offered including optical characteristics, mechanical characteristics and geometrical characteristics and etc.

Optical Fiber

Optical fiber characteristics

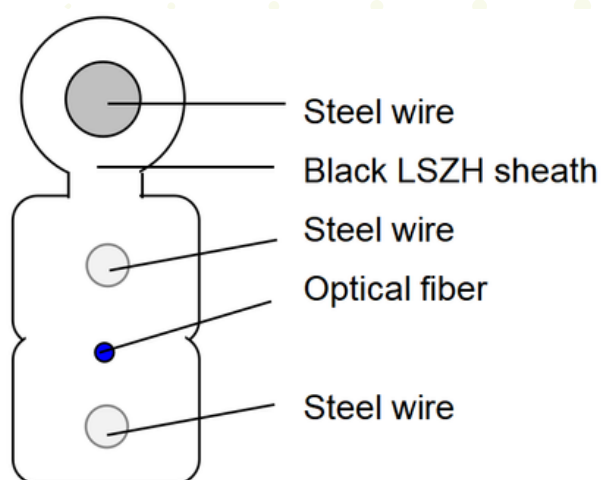
Category	Description		Specifications
			G.657A2
Optical Specifications	Attenuation	@1310nm	$\leq 0.35\text{dB/km}$
		@1383nm	$\leq 0.35\text{dB/km}$
		@1460nm	$\leq 0.25\text{dB/km}$
		@1550nm	$\leq 0.21\text{dB/km}$
		@1625nm	$\leq 0.23\text{dB/km}$
	Attenuation vs. Wavelength	@1285~1330nm relative to @1310	$\leq 0.08\text{ dB/km}$
		@1525~1575nm relative to @1550	$\leq 0.05\text{ dB/km}$
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		$\leq 0.092\text{ps}/(\text{nm}^2.\text{km})$
	Dispersion	@1310nm	$\leq 3\text{ ps/nm.km}$
		@1550nm	$\leq 18.0\text{ ps/nm.km}$
		@1625nm	$\leq 22.0\text{ ps/nm.km}$
	PMD		$\leq 0.1\text{ ps}/\sqrt{\text{km}}$
Geometric Specifications	Cable Cutoff Wavelength(λ_{cc})		$\leq 1260\text{nm}$
	Macro-bend induced attention R15mm/10turns/1550nm		$\leq 0.03\text{dB}$
	Macro-bend induced attention R10mm/1turn/1550nm		$\leq 0.1\text{dB}$
	Mode Field Diameter	@1310nm	$8.6\sim 9.2(\pm 0.4)\mu\text{m}$
	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

Other parameters meet standard ITU-T G.657

1. OPTICAL CABLE

1.1 Construction of cable



2. Cable Specification

The optical fiber unit is positioned in the center. Two parallel steels wires are placed at two sides. LSZH outer sheath with messenger wire combined.

2.2 Cable structure and parameter

Item	Contents	Unit	Value
Optical Fiber	/	/	1
Strength member	Material	/	Steel wire
Messenger wire	Material	/	Steel wire
	Diameter	mm	Nominal 1.0
Outer jacket	Dimension	mm	5.2(± 0.2)*2.0(± 0.2) Without messenger wire: 3.0(± 0.2)*2.0(± 0.2)
	Material	/	LSZH
	Color	/	Black
Max span	/	m	100
Tensile performance	Short term	N	600
Crush	Short term	N/100mm	2200

MAX Span	/	m	100
Cable attenuation		dB/km	≤ 0.4 at 1310nm, ≤ 0.3 at 1550nm
Cable weight (Approx.)		kg/km	19
Protection Level	/		Non-flammable thermoplastic material UV resistant
Applicable standards	/		G.657A, CEI 60793-2-50, ISO/IEC 11801, EN 50173, Telcordia GR-20-CORE y ANSI/ICEA S-87-640.

Note: sizes and values without tolerances are nominal values.

3. Characteristic of Optical Cable

3.1 Min. bending radius without messenger wire

Static: 20mm

Dynamic: 40mm

3.2 Application temperature range

Operation: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Installation: $-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$

Storage/transportation: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

3.3 Main mechanical & environmental performance test

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-21-E1	- Load: Short term tension - Length of cable: $\geq 50\text{m}$ - Load time: 1min	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Crush Test IEC 60794-1-21-E3	- Load: Short term crush - Load time: 1min	- Loss change $\leq 0.1\text{dB}@1550\text{nm}$ after test. - No fiber break and no sheath damage.
Temperature Cycling IEC 60794-1-22-F1	- Temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$ - Time of each step: 8h - Number of cycle: 2	- Loss change $\leq 0.4\text{dB/km}@1550\text{nm}$. - No fiber break and no sheath damage.