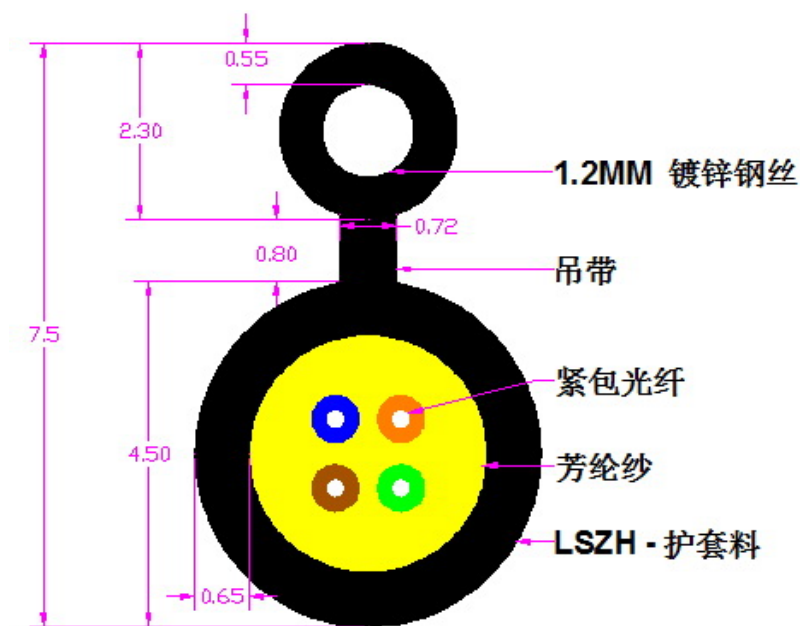




TECHNICAL DATA SHEET FOR OPTICAL FIBER DROP CABLE LSZH TYPE WITH (SM 4 FIBERS)

Product: Optical Fiber CABLE 4C ROUND Drop Cable
spec code: SLDW4CR

1. Cable Cross-section



Support wire diameter 1.2mm solid

The drop wire is designed for Maximum pole span 40 meters installation and initial sag 0.5% of pole span length.

2. Cable Specification

2.1 Sheath marking

SURELINK FTTX DROP CABLE 4F G657A1 LSZH XXXXm

*SUM*The marking is printed every 1 meter*

2.2 Each cable ends are sealed with heat shrinkable end caps to prevent water ingress.

2.3 Fiber color code

No.	1	2	3	4
Color	Blue	Orange	green	brown

2.4 Cable structure and parameter

Fiber count	Tight Buffer Diameter	Messenger solid steel wire diameter	Sheath thickness (nominal*)	Cable dimension W*H (Nominal*)	
	mm	mm	mm	mm	
4	0.9	1.2 MM	0.65	4.5*7.5	

** The nominal sheath thickness may have a tolerance with $\pm 0.1\text{mm}$.*

3. Performance of Cabled Optical Fiber



The performance of cabled optical fiber (ITU-T Rec. G.657A)

Item	Specification
Fiber type	Single mode
Fiber material	High grade silica or doped silica or
Protective materials	UV curable acrylate or Equivalent
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1490nm @ 1550 nm @ 1625 nm from 1285 nm to 1330 nm shall from 1525 nm to 1575 nm	≤ 0.38 dB/km ≤ 0.35 dB/km ≤ 0.30 dB/km ≤ 0.26 dB/km ≤ 0.29 dB/km not exceed the attenuation coefficient at 1310 nm by more than 0.03dB/km. shall not exceed the attenuation coefficient at 1550 nm by more than 0.02dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm ² .km)
Chromatic dispersion @ 1310 nm @ 1550 nm @ 1625 nm	≤ 3.5 ps/(nm. km) ≤ 18.0 ps/(nm. km) ≤ 22.0 ps/(nm. km)
PMD _Q (Quadrature average*)	≤ 0.2 ps/km ^{1/2}
Mode field diameter @ 1310 nm	8.6±0.4 μm
Core / Clad concentricity error	≤ 0.5 μm
Cladding diameter	125.0 ± 1.0 μm
Cladding non-circularity	$\leq 1.0\%$
Primary coating diameter	245 ± 5 μm
Macro bending	≤ 0.25 dB@1550nm (Radius=15mm, 10 turns)
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0°C~ +70°C @ 1310 & 1550nm	≤ 0.1 dB/km

* PMD_Q is a link of 20 cable sections (M) and a probability level of 0.01% (Q).

Table 1. Cable sheath material specification



Parameters	Specification
1. Carbon Black (%)	2.6 ± 0.25
2. Minimum Tensile Strength	100 kg/cm ²
3. Minimum Elongation	160 %
4.Flame Propagation	See Section 6.4

Suspension member diameter: 1.2 mm

Minimum Breaking strength: 1000N

Minimum elongation : 2.0%

Minimum weight of zinc coating (mm wire) : 32g/m²

Installation conditions

Parameters		value
1. Maximum pole span length		40 m.
2. Temperature	Installation:	40 °C
	Operation :	Tropical, -10°C to 70°C
3. Worst case loading condition (Short-term)	Wind Velocity :	Max. 144 km/hr
	Temperature :	25°C
4. Initial Sag		0.5 % of span length
5. Relative humidity		Up to 90%, no frost

The minimum allowable bending radius of the cable shall be as below.

Minimum bending radius	Performance
	4 fibers
With suspension wire	130 mm.20XD or better
Without suspension wire	35mm. 10XDor better

4. Performance of Optical Fiber Cable

4.1 Cable bending radius: 10 x cable diameter (static)

20 x cable diameter (dynamic)

4.2 Application temperature range

Operating temperature range : -10°C to +70°C

Storage / Transport temperature range : -10°C to +70°C

Installation temperature range : 0°C to +50°C

4.3 Mechanical & environmental performance test

S/N	Item	Test Method	Acceptance Condition
1	Tensile Strength Testing IEC 794-1-E1	- Load: ≥ 800 N - Length of cable under load: 50 m - Load time: ≥ 10 min.	- Loss change ≤ 0.1 dB @1550 nm - Fiber strain $\leq 0.33\%$ - No fiber break and no sheath damage.

2	Bending Testing IEC 794-1-E6	- Bending Diameter.: 30mm, 10 turns	- Loss change ≤ 0.1 dB @1550 nm - No fiber break and no sheath damage.
3	Temperature Cycling Test IEC 794-1-F1	- Temperature step: +20°C→-10°C→+70°C →+20°C - Time per each step: 16 hrs - Number of cycle: 1	- Loss change ≤ 0.1 dB/km@1550 nm - No fiber break and no sheath damage.

5. Packing and Marking

5.1 Packing

5.1.1 Each single cable length been wound on an iron stand-wooden composite or pure wooden drum.

5.1.2 Standard drum length is 1000m .

5.1.3 Covered by plastic buffer sheet.

5.1.4 Sealed by strong wooden battens.

5.1.5 At least 1m of cable inner end should be reserved for testing.

5.2 Marking

5.2.1 Cable drum

- Manufacturer brand;
- Roll-direction arrow;
- Cable outer end position indicating arrow;
- The word “**OPTICAL FIBER CABLE**”;
- Origin, The word “**MADE IN CHINA**”;
- Caution plate indicating the correct method for loading, unloading and convey the cable;
- *Other customer information such as contract no., project no., and delivery destination. (if needed)*

5.2.2 Marking plate

- Product name;
- Cable type and size;
- Drum length in meters;
- Gross / Net weight in kilograms;
- Drum number;
- Manufacturer's name;
- Manufacturing year and month;
- *Other customer information such as contract no., project no., and delivery destination. (if needed)*