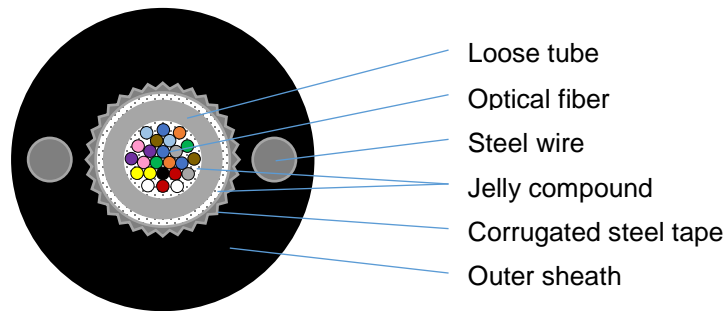




**DROP FIBER OPTIC CABLE  
ROUND ARMORED LOOSE TUBE G.652D UP TO 24C  
REFERENCE: IEC 60793, 60794, ITU-T G.650, G.652D**

**Cable Structure**

**1) Cross Section**



**2) Construction**

Structure	Item	Value
Optical Fiber	Fiber	G.652D (Max. 24F)
	Color	TIA 568A
Loose Tube	Diameter	Nom. 3.0 mm
	Color	Natural
	Filling compound	Thixotropic jelly
Tensile Strength Member	Steel Wire	2
Armor	Corrugated steel tape with polymer coated on both sides	
Outer Sheath	Material	HDPE
	Color	Black
Bending	Dynamic	≥ 20 x Cable diameter
	Static	≥ 10 x Cable diameter
Cable	Diameter	Nom. 9.7 mm
	Weight	37~39 kg/km

## Optical Fiber Characteristics

### 1) Single mode fiber (ITU-T G.652D)

Parameter	Value
Attenuation coefficient @ 1310 nm @ 1550 nm	≤ 0.36dB/km ≤ 0.22dB/km
PMD	≤ 0.2 dB(ps/km <sup>1/2</sup> )
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm <sup>2</sup> .km)
Chromatic dispersion @ 1285 ~ 1330 nm @ 1550 nm	≤ 3.5 ps/(nm <sup>2</sup> .km) ≤ 18.0 ps/(nm <sup>2</sup> .km)
Mode field diameter @ 1310 nm	9.3 ± 0.5 μm
Core/Clad concentricity error	≤ 0.8 μm
Cladding diameter	125.0 ± 1.0 μm
Cladding non-circularity	≤ 1.0 %
Primary Coating diameter	245 ± 10μm
Refractive index	1.4690 @ 1310 nm 1.4695 @ 1550 nm
Proof test level	100 kpsi, 1%

## Mechanical Properties

### 1) Mechanical & Environmental requirements

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength:2700N -Sample length:50 meters -Time: 1minutes;	-Attenuation increase $\leq$ 0.1dB - Fiber strain at max. load: max.0.33%
2	Crush test	IEC-60794-1-E3	-Load:1000N -Time: 1 minutes -Length: 100mm	-No splits or cracks in the outer jacket; -Attenuation increase $<$ 0.1dB, (After the test)
3	Impact test	IEC-60794-1-E4	-Impact energy: 450g - Height:1 meter -Impact points: min.1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase $\leq$ 0.1dB(After the test)
4	Repeated bending	IEC-60794-1-E6	-R=20xcable outer diameter -1m cable length with 150N weight,30 cycles	- No splits or cracks in the outer jacket -Attenuation increase $\leq$ 0.1dB(After the test)
5	Torsion test	IEC-60794-1-E7	-1m cable length with 150N weight - $\pm$ 90 degrees, 10 cycles	- No splits or cracks in the outer jacket -Attenuation increase $\leq$ 0.1dB(After the test)
6	Bending test	IEC-60794-1-E11	-Diameter of mandrel: 20xD -Number of turns/helix:10 -Number of cycles: 5	- No splits or cracks in the outer jacket - No fiber break
7	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20°C $\rightarrow$ -40°C $\rightarrow$ +60°C $\rightarrow$ -40°C $\rightarrow$ +60°C $\rightarrow$ +20°C -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20 $\pm$ 3°C) $\leq$ 0.1dB/km,
8	Water penetration test	IEC-60794-1-F5	-Water height: 1m -Sample length:3m -Duration of test: 24hrs	-No water leakage at the end of the sample
9	Drip test	IEC-60794-1-E14	-Five 0.3m samples suspended vertically in a climate chamber, raised temperature to +70°C	-No filling compound shall drip from tubes after 24 hr

Product:  
SJSA Round Drop 24F

Spec. No.:  
LA-RD-24D0-150121A-SJSA

## Packing and Marking

### 1) Marking

#### **0000M LEXINGTON AMES SJSA DROP CABLE G.652D 4F 2019**

- 0000M: figure of meter or foot
- The marking is printed every 1 meter or 3 feet

### 2) Packing

- Plywood Bobbin
- Pallet is applied for the shipment
- Box
- 1,000M/Drum

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