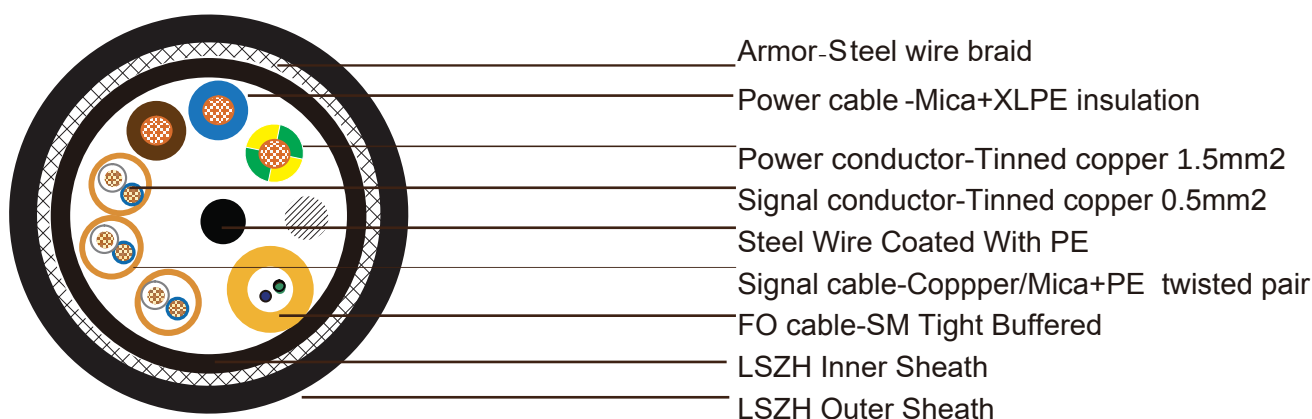




Composite Cables

Power Cable + Signal Cable + SM Tight Buffered Fiber Optical Cable SWB Armored Fire Resistant Composite Cable

Construction:



1*3*1.5mm² Power Cable

Conductor	Stranded tinned copper wire
Insulation	MGT +XLPE. Nominal Insulation Thickness 0.7mm
Insulation Color	Brown ,Blue ,Green /Yellow

3P*0.5mm² Signal Conductor

Conductor	Stranded tinned copper wire
Insulation	MGT +PE. Nominal Insulation Thickness 0.6mm
Insulation Color	Blue, White

2Cx125um Tight Buffered Fiber Cable

Tight buffered fiber	Single-mode fiber meets the ITU G.652D specificati
Strength meber	Aramid yarn with Fire barrier wrapped
Sheath	LSZH
Sheath Color	Black or yellow



Composite Cables

Element Assembly

Central Strength Member	Steel wire coated with PE
Inner Jacket	FRLSZH , ID(inner sheath diameter)min. 20.2mm
Aarmor	Steel wire braid, dia. 0.2mm, coverage 80%
Sheath	FRLSZH, UV resistance, hydrocarbon resistance and water tightness
Sheath Color	Black. Nom. OD (overall diameter) min. 24.6mm.

Electrical Properties @20°C:

1.5mmsq Power Cable

Conductor Resistance @ 20°C : 12.3 ohm/km

Insulation Resistance: $\geq 1 \text{GOhm} \times \text{km}$

Voltage rating: 300/500V or 0.6/1KV as option

0.5msmq Signal Cable

Conductor Resistance @ 20°C: 39.7Ohm/km

Insulation Resistance: $\geq 1 \text{GOhm} \times \text{km}$

Voltage rating: 300/500V

Mechanical Properties:

Operating temperature: -30 to +80 degree C

Tensile load:

Operating: 3000N; Installation: 6000N

Bending radius:

Operating: 12.5×OD

Installation: 25×OD

Compressive load:

Short term: 5000N; Long term: 4000N

Fire Protection Characteristics:

Flame Propagation: IEC 60332-1 , IEC 60332-3-24(IEC 60332-3C)

Low Smoke Capacity: IEC 61034-1/2

Halogen Free: IEC 60754-1/2



OPTICAL CHARACTERISTICS

The Single-mode fibers meet the ITU G.65D specification, as listed below:

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables		Standard	Metro Area	Long Haul	
	@1310nm	≤0.35	-	-	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.26	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables					
	@1310nm	≤0.38	-	-	dB/km
	@1550nm	≤0.28	-	-	dB/km
Chromatic Dispersion					
	between 1260 and 1360nm (O Band)	≤3.5	NA-	-	ps/(nm*km)
	between 1460 and 1530nm (S Band)	-	-	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	≤1520	≤1420	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm ² .km)
Point Discontinuity at 1300nm & 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	-		um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-off Wavelength		≤1260	≤1450	≤1310	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km 1/2
Cladding Diameter		125±1	125±1	125±1	um



Composite Cables

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Core/Cladding Concentricity Error		≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity		≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity		≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter		245±10	245±10	245±10	um
Proof-Test Level		100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m ²
Fatigue Coefficient		≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm		0.1	0.1	0.1	Db/km