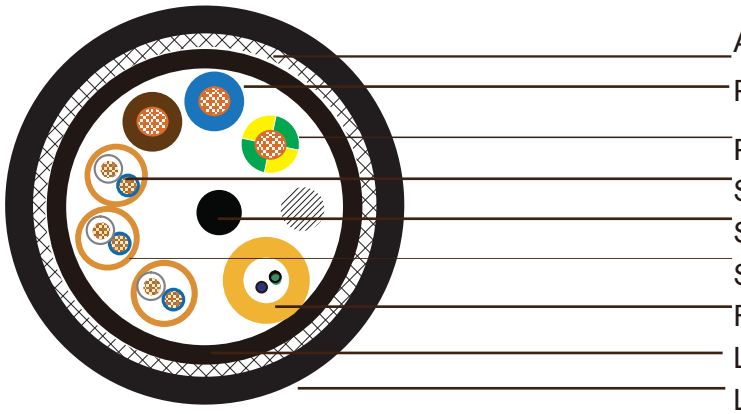
Power Cable + Signal Cable + SM Tight Buffered Fiber Optical Cable SWB Armored **Fire Resistant** Composite Cable

Construction:



1*3*1.5mm² Power Cable

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

Element Assembly

Central Strength Member	**Steel wire coated with PE**
Inner Jacket	**FRLSZH , ID(inner sheath diameter)min. 20.2mm**
Armor	**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: ≥1GOhmxkm

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

0.5msmq Signal Cable

Conductor Resistance @ 20°C: 39.7Ohm/km

Insulation Resistance: ≥1GOhmxkm

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/(nm2.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

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