

## IPSCAPC Cable Assemblies Specification



### Application

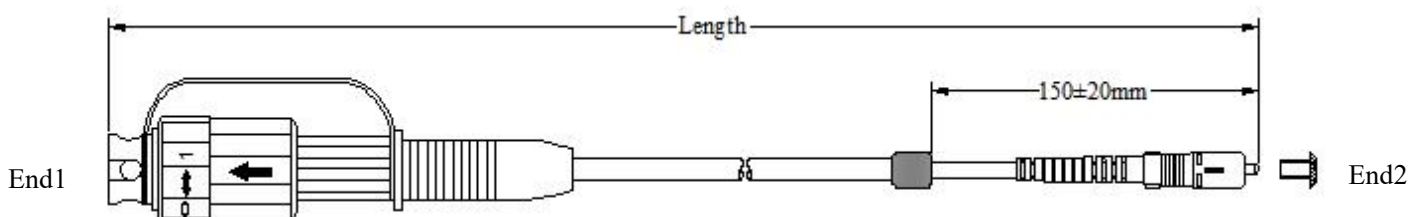
Fiber optic communications in harsh outdoor environments  
Outdoor communication equipment connection  
waterproof fiber equipment SC port  
Remote wireless base station  
FTTx wiring project

### Features

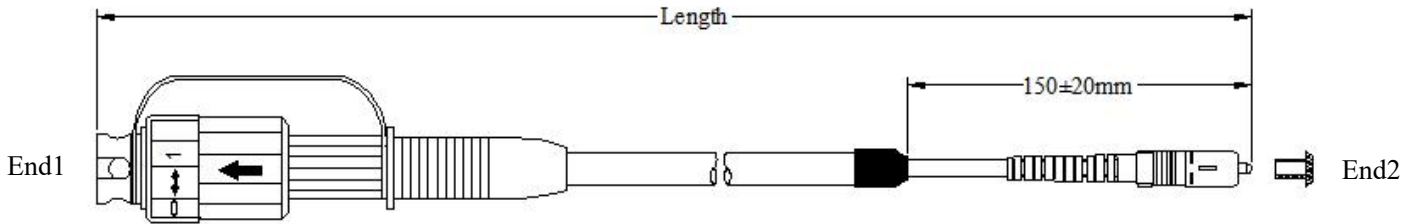
1. Cost effective solution for in house termination.
2. Low insertion loss and added loss.
3. Height of attenuation.
4. IP67 water, dust proof and corrosion resistant
5. The material in the jumpel cable are all-weather and UV-resistant.
6. Mechanical performance: IEC 61754-4 standard.
7. RoHS and REACH materials compliant.
8. Cable diameter Range: 5.0mm to 4.0\* 7.0mm.

### Dimensional Diagrams

4. IPSCAPC 5.0mm Cable Assemblies



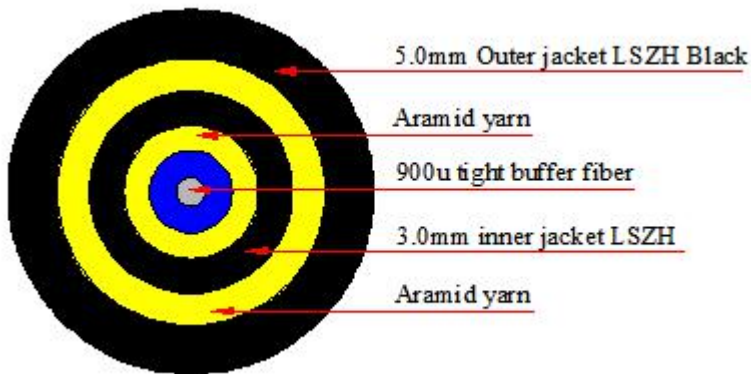
## 2.IPSCAPC 4.0\*7.0mm Cable Assemblies



### Patch cord versions

Jumper tolerance requirement	
Overall length (L) (M)	length of tolerance (CM)
$0 < L \leq 20$	+10/-0
$20 < L \leq 40$	+15/-0
$L > 40$	+0.5%L/-0

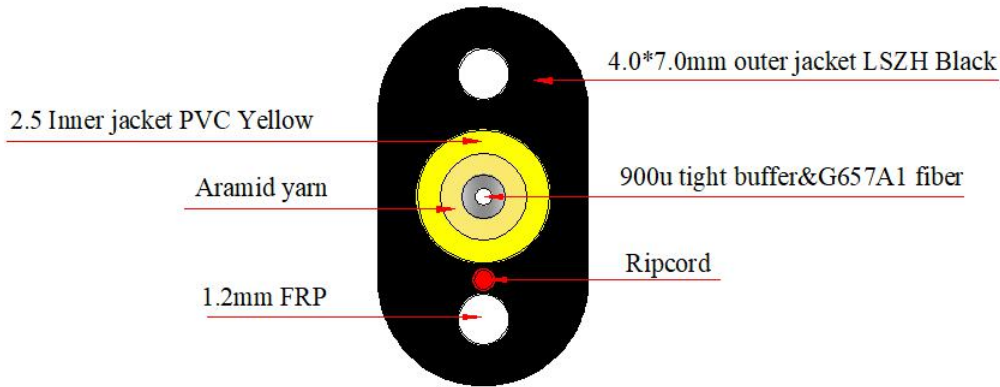
### Cable Structure



### Cable Parameters

Cable Count	Out sheath Diameter (MM)	Weight (KG)	Minimum allowable Tensile Strength (N)		minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage temperature (°C)
			short term	long term	short term	long term	short term	long term	
1	5.0±0.2	26.5	800	400	2000	1000	20D	10D	-20 ~ +60

## Cable Structure



## Cable Parameters

Cable Count	Out sheath Diameter (MM)	Weight (KG)	Minimum allowable Tensile Strength (N)		minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage temperature (°C)
			short term	long term	short term	long term	short term	long term	
1	(4.0±0.2)x(7.0±0.2)	42	1350	400	2200	1000	20D	10D	-20 ~ +60

## Optical Characteristics

Item	Parameter				Reference
	Single mode		Multimode		
	Standard	Elite	Standard	Elite	
Insertion loss	Typical≤0.30dB Max≤0.75dB	Typical≤0.15dB Max≤0.35dB	Typical≤0.50dB Max≤0.25dB	Typical≤0.10dB Max≤0.35dB	IEC 61300-3-34
Return loss	≥ 50dB (PC) ≥ 60dB (APC)	≥ 55dB (PC) ≥ 65dB (APC)	≥ 30dB(PC)	≥ 30dB(PC)	IEC 61300-3-6

## End-Face Geometry

Item	UPC (Ref: IEC 61755-3-1)	APC (Ref: IEC 61755-3-2)
Radius of curvature (mm)	10 to 25	5 to 12
Fiber height (nm)	-100 to 100	-100 to 100
Apex offset (μm)	0 to 50	0 to 50
APC angle (°)	/	8° ±0.2°
Key error (°)	/	0.2° max

### End-Face Quality (SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

### End-Face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

### Mechanical Characteristics

Test	Conditions	Reference
Endurance	500 matings	IEC 61300-2-2
Vibration	Frequency: 10 to 55Hz, Amplitude: 0.75mm	IEC 61300-2-1
Cable retention	100N (main cable); 50N (connector part)	IEC 61300-2-4
Strength of coupling mechanism	80N for 2 to 3mm cable	IEC 61300-2-6
Cable torsion	15N for 2 to 3mm cable	IEC 61300-2-5
Fall	10 drops, 1m drop height	IEC 61300-2-12
Static lateral load	1N for 1h (main cable); 0.2N for 5min (ranch part)	IEC 61300-2-42
Cold	-25°C, 96h duration	IEC 61300-2-17
Dry heat	+70°C, 96h duration	IEC 61300-2-18
Change of temperature	-25°C to +70°C, 12 cycles	IEC 61300-2-22
Humidity	+40°C at 93%, 96h duration	IEC 61300-2-19