

FTTH Flat Drop Patch Cord Specification



Application

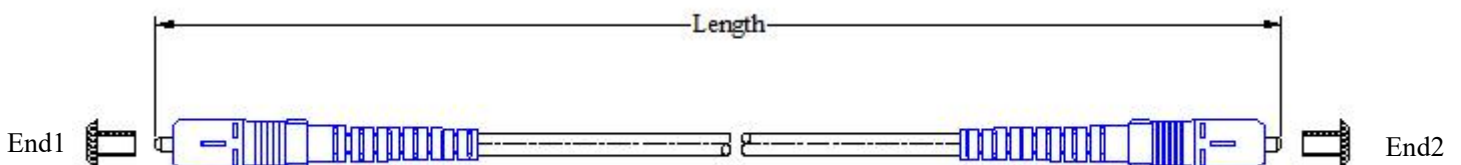
FTTH network for indoor and outdoor
Local Area Network and Building Cabling Network
Interconnect between instruments,
terminal box and communication

Features

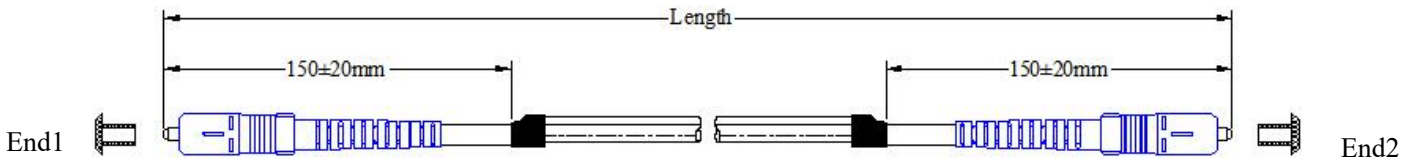
1. Cost effective solution for in house termination.
2. Low insertion loss and added loss.
3. Height of attenuation.
4. The material in the jumpel cable are all-weather and UV-resistant.
5. Mechanical performance: IEC 61754-4 standard.
6. RoHS and REACH materials compliant.
7. Cable diameter Range: 2.0*3.0mm, 2.0*5.0mm..

Dimensional Diagrams

1. SCUPC FTTH Flat Drop Patch Cord 2.0*3.0mm Cable



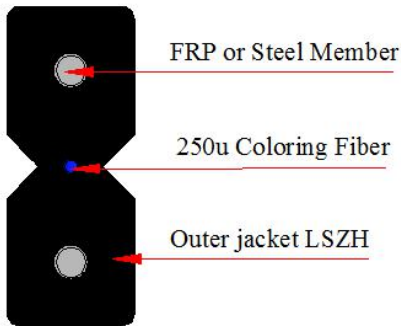
2. SCUPC FTTH Flat Drop Patch Cord 2.0*5.0mm Cable



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

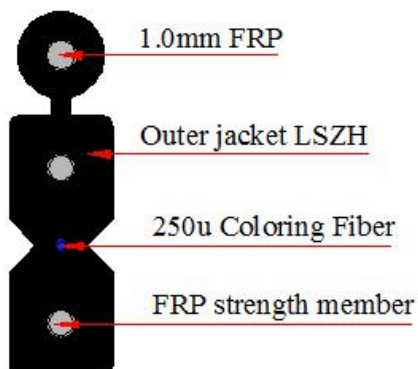
Cable Structure



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	$(2.0 \pm 0.1) \times (3.0 \pm 0.2)$	8	100	50	500	100	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	$(2.0 \pm 0.2) \times (5.0 \pm 0.3)$	21.7	400	200	2200	1000	20D	10D	-20 ~ +60

Optical Characteristics

Item	Parameter				Reference
	Single mode		Multimode		
	Standard	Elite	Standard	Elite	
Insertion loss	Typical $\leq 0.30\text{dB}$ Max $\leq 0.75\text{dB}$	Typical $\leq 0.15\text{dB}$ Max $\leq 0.35\text{dB}$	Typical $\leq 0.50\text{dB}$ Max $\leq 0.25\text{dB}$	Typical $\leq 0.10\text{dB}$ Max $\leq 0.35\text{dB}$	IEC 61300-3-34
Return loss	$\geq 50\text{dB}$ (PC) $\geq 60\text{dB}$ (APC)	$\geq 55\text{dB}$ (PC) $\geq 65\text{dB}$ (APC)	$\geq 30\text{dB}$ (PC)	$\geq 30\text{dB}$ (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 (°)	/	$8^\circ \pm 0.2^\circ$
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