NSN boot dulex LC Fiber Optic Jumper Specification

Application

1.Multi-purpose Outdoor.
2.For connection between distribution box and RRH.
3.Deployment in Remote Radio Head cell tower applications.

Features

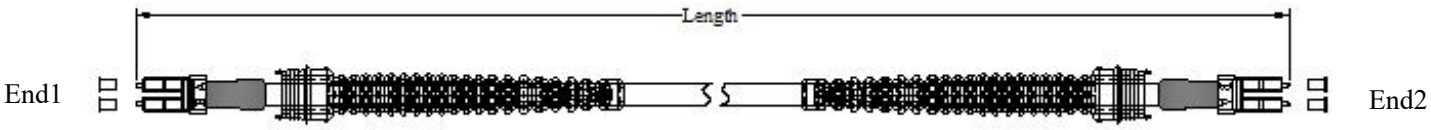
1.Easily add/install jumper cables for a future expansion.
2.Low insertion loss and added loss.
3.Height of attenuation.
4.Flexibility with small bending radius and excellent cable routing properties.
5.End-face geometry and quality superior than IEC and Telcordia standards.
6.The material in the jumpel cable are all-weather and UV-resistant.
7.IP67 water and dust protection.
8.Mechanical performance: IEC 61754-20 standard.
9.RoHS and REACH materials compliant.

Connector Types

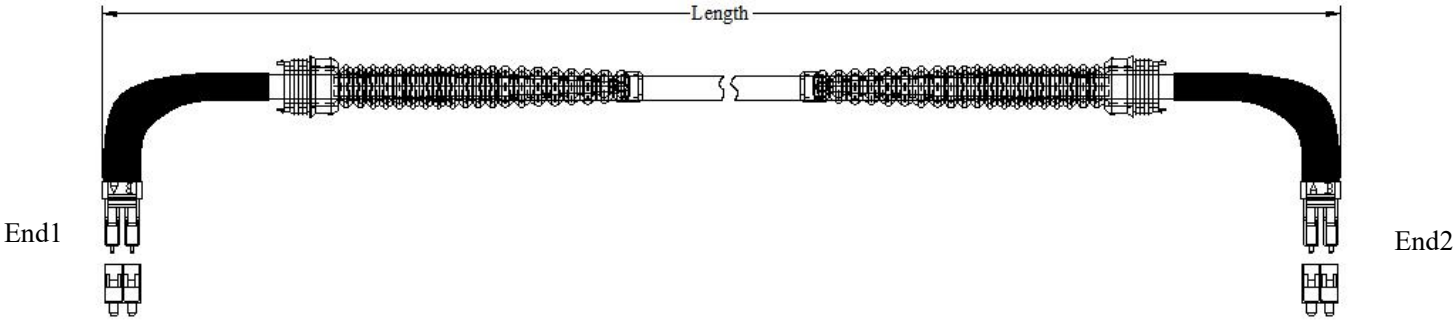
Type	Reference	Note	
LC	IEC 61754-20	Single mode duplex	APC: Green connectors UPC: Blue connectors
		Multimode duplex	UPC: Grey Connectors

Dimensional Diagrams

1.NSN boot 180° dulex LC Fiber Optic Jumper



2.NSN boot 90° dulex LC Fiber Optic Jumper



Patch cord versions

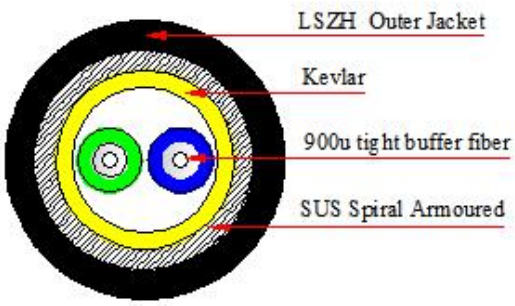
Jumper tolerance requirement	
Overall length (L) （M）	**length of tolerance（CM）**
0＜L≤20	+10/-0
20＜L≤40	+15/-0
L＞40	+0.5%L/-0

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（℃）
			short term	long term	short term	long term	short term	long term	
2	5.0±0.2	30	800	400	2000	1000	20D	10D	-20 ~~ +70

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（℃）
			short term	long term	short term	long term	short term	long term	
2	5.0±0.2	45	400	800	2000	3000	20D	10D	-20~~+70

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（℃）
			short term	long term	short term	long term	short term	long term	
2	7.0±0.3	68	600	1000	2000	3000	20D	10D	-20~~+70

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（℃）
			short term	long term	short term	long term	short term	long term	
2	7.0±0.3mm	50	600	1000	1000	2000	20D	10D	-20~~+70

Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value≤0.15dB;Maximum≤0.30	Typical value≤0.15dB;Maximum≤0.30	IEC 61300-3-34
Return loss	≥ 60dB (APC); ≥ 50dB (UPC)	≥30dB (UPC)	IEC 61300-3-6

End-Face Geometry

Item	UPC (Ref: IEC 61755-3-1)	APC (Ref: IEC 61755-3-2)
Radius of curvature (mm)	7 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 Qualty (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 Qualty (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	400N (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