

FTTA NSN BOOT DUPLEX

NSN boot duplex LC Fiber Optic Jumper (NSN-NSN)



FEATURES

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



APPLICATION

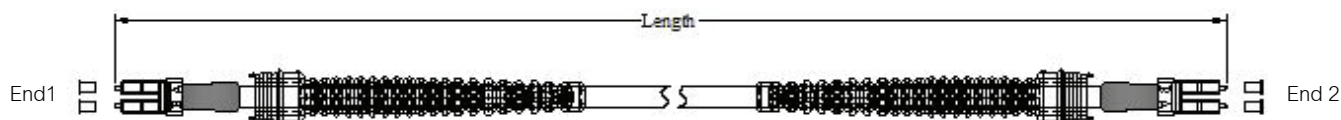
- Multi-purpose Outdoor.
- For connection between distribution box and RRH.
- Deployment in Remote Radio Head cell tower applications.

CONNECTOR TYPES

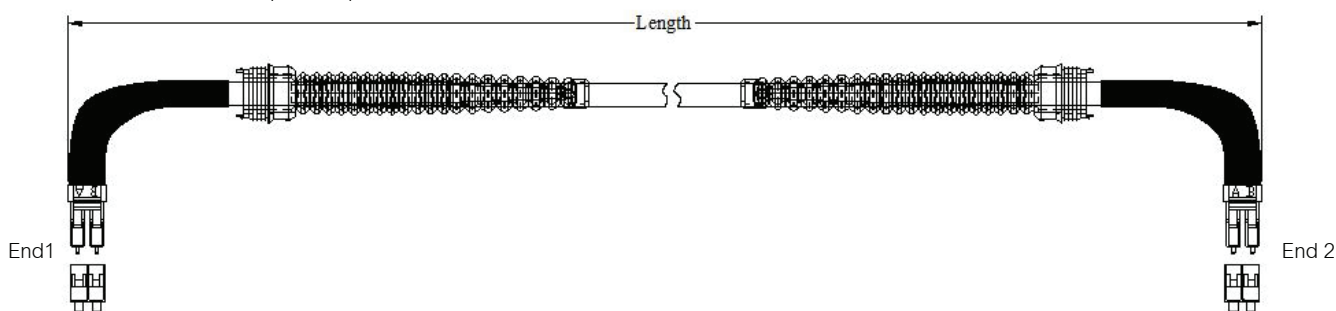
Type	Reference	Type	Note
LC	IEC 61754-20	Single mode duplex	APC: Green connectors
			UPC: Blue connectors
		Multimode duplex	UPC: Grey Connectors

DIMENSIONAL DIAGRAMS

NSN boot 180° dulex LC Fiber Optic Jumper



NSN boot 90° dulex LC Fiber Optic Jumper



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

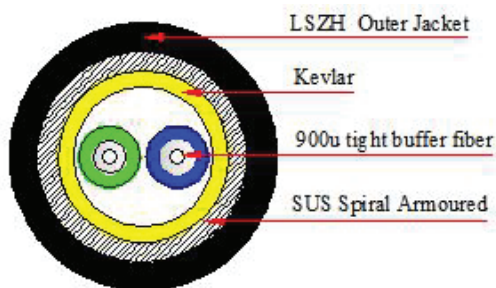
CABLE STRUCTURE



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	
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 (°C)
			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 (°C)
			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

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	
2	7.0±0.3	68	600	1000	2000	3000	20D	10D	-20 ~ +70

OPTICAL CHARACTERISTICS

Item	Single mode	Multimode	Reference
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 QUALY (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 QUALY (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 (ranch 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

ORDER INFOMATION

PRODUCT	PART NUMBER
NSN boot duplex LC Fiber Optic Jumper (NSN-NSN)	F-FTTA-NSN-NSN