



UFC9204LSZH
 UFC9206LSZH
 UFC9208LSZH
 UFC9212LSZH

UFC5204LSZH
 UFC5206LSZH
 UFC5208LSZH
 UFC5212LSZH

UFC4204
 UFC4206
 UFC4212

UFC3204
 UFC3206
 UFC3212

UFC2204
 UFC2206
 UFC2212

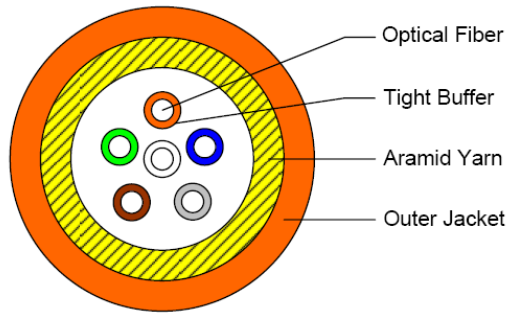


Scope of Application

This specification covers the general requirements for fiber optic telecommunication cables used for campus backbone (inter-building), building backbone (intra-building), indoor installation. LINK fiber optic cable support application such as 40/100Gbps Ethernet, IEEE802.3ae, 10G Ethernet, IEEE802.3z, Gigabit Ethernet, Fast Ethernet, Ethernet, 100BASE-F, 52/155/622Mbps and 1.2Gbps ATM, FDDI, Fiber channel and others.

LINK INDOOR, Distribution, LSZH, fiber optic cable, 900µm tight-buffered optical fibers surrounded by aramid strength member with a flame-retardant LSZH outer jacket.

Drawing



Technical Standard

- ANSI/TIA-568.3-D
- ANSI/TIA-568-D.3
- ANSI/ICEA 596
- Telcordia (Bellcore) GR-409-CORE
- ITU-T G.652D (Singlemode)
- ITU-T G.651 (Multimode)
- RoHS Compliant
- ISO/IEC 11801:2011
- ISO/IEC 11801:2017
- IEC 60332-1, IEC 60332-3
- IEC 61034-2, IEC 60754-2
- IEC 60793, IEC 60794-1-2
- EN 50173-1, UL-1666, FR-LSZH, OFNR





OPTICAL FIBER

Items		Specifications
Fiber Type		9/125 μm (OS2)
Max. / Typ. Attenuation	1310 nm	$\leq 0.35/0.33$ dB/km
	1383 nm	$\leq 0.35/0.31$ dB/km
	1550 nm	$\leq 0.21/0.19$ dB/km
	1625 nm	$\leq 0.23/0.20$ dB/km
Core	Mode Field Diameter	9.2 \pm 0.4 μm @ 1310 nm 10.4 \pm 0.5 μm @ 1550 nm
Cladding Diameter		125 \pm 0.7 μm
Coating Diameter, Primary		242 \pm 5 μm
Coating Diameter, Secondary		250 \pm 5 μm
Cladding Non-circularity		≤ 0.7 %
Core/Cladding Concentricity error		≤ 0.5 μm
Coating/Cladding Concentricity error		≤ 12 μm
Attenuation (Homogeneity)		Max 0.1 dB/km
Zero Dispersion Wavelength		1300 ~ 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/(nm ² .km)
Cut-off Wavelength	λ_0 (Fiber)	1150 ~ 1330 nm
	λ_∞ (Cable)	≤ 1260 nm
Proof Test Stress		100 Kpsi
Chromatic Dispersion	λ ; 1285~1340 nm	≤ 3.5 ps/nm.km
	$\lambda = 1550$ nm	≤ 18 ps/nm.km
	$\lambda = 1625$ nm	≤ 22 ps/nm.km
Polarization mode dispersion (PMD)		≤ 0.20 ps/ $\sqrt{\text{km}}$
Fiber Curl		$\geq 4\text{M}$
Numerical Aperture		0.130 \pm 0.010
Group refractive index	1310 nm	1.4676
	1550 nm	1.4682

Table 1 The Optical, Geometrical Performance of the Singlemode Fiber (The specification conforms to the requirement of ISO/IEC11801, ANSI/TIA-568.3-D, IEC 60793-2B1.3, ITU-T G.652D)



OPTICAL FIBER

Items		Specifications			
		50/125 μ m (OM2)	50/125 μ m (OM3)	50/125 μ m (OM4)	50/125 μ m (OM5)
Fiber Type	850 nm	$\leq 2.7 / \leq 2.5$	$\leq 2.7 / \leq 2.3$	$\leq 2.7 / \leq 2.3$	$\leq 2.7 / \leq 2.3$
	1300 nm	$\leq 0.8 / \leq 0.7$	$\leq 0.8 / \leq 0.6$	$\leq 0.8 / \leq 0.6$	$\leq 0.8 / \leq 0.6$
	953 nm	N.A	N.A	N.A	$\leq 2.3 / \leq 2.0$
Max./ Typ. Attenuation (dB/km)	850 nm	≥ 500	≥ 1500	≥ 3500	≥ 3500
	1300 nm	≥ 500	≥ 500	≥ 500	≥ 500
	953 nm	N.A	N.A	N.A	≥ 1850
Bandwidth (MHz/km)	850 nm Laser Bandwidth (MHz/km)	N.A	≥ 2000	≥ 4700	≥ 4700
	953nm Laser Bandwidth (MHz/km)	N.A	N.A	N.A	≥ 2470
	Core Diameter (μ m)	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Cladding Diameter (μ m)	125 ± 1	125 ± 1	125 ± 1	125 ± 1	
Core Non-circularity (%)	≤ 5	≤ 5	≤ 5	≤ 5	
Cladding Non-circularity (%)	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
Core/Cladding Concentricity error (μ m)	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5	
Coating Diameter, Primary (μ m)	242 ± 5	242 ± 5	242 ± 5	242 ± 5	
Coating Diameter, Secondary (μ m)	250 ± 5	250 ± 5	250 ± 5	250 ± 5	
Coating Non-Circularity (%)	≤ 5	≤ 5	≤ 5	≤ 5	
Coating/Cladding Concentricity error (μ m)	≤ 12	≤ 12	≤ 12	≤ 12	
Attenuation (Homogeneity)	Max 0.1 dB/km	Max 0.1 dB/km	Max 0.1 dB/km	Max 0.1 dB/km	
Proof Test Stress (kpsi)	100	100	100	100	
Bending Loss @ 850 & 1300 nm (100 turns,	≤ 0.5 dB	≤ 0.5 dB	≤ 0.5 dB	≤ 0.5 dB	
Zero-Dispersion Wavelength	1295~1315nm	1295~1315nm	1295~1315nm	1295~1315nm	
Zero-Dispersion Slope (ps/(nm ² .km))	≤ 0.101	≤ 0.101	≤ 0.101	≤ 0.101	
Numerical Aperture	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	
Group refractive index	850 nm	1.482	1.482	1.482	
	1300 nm	1.477	1.477	1.477	

Table 2 The optical, Geometrical Performance of the Multimode Fiber (The specification conforms to the requirement of ISO/IEC11801, ANSI/TIA-568.3-D, IEC 60793-2A1a, IEC 60793-2A1b, ITU -T G.651)



CABLE CONSTRUCTION

The construction of the cable shall be in accordance with Table 3 below.

Items		Specifications			
Number of fiber		4 Core	6 Core	8 Core	12 Core
Tight Buffer	Material	FR-PVC with color coding			
	Outer Diameter	900 μm			
Strength Member		Aramid Yarn			
Outer Jacket	Material	FR-LSZH			
Cable Diameter (Approx.)		4.8 ± 0.2 mm	5.4 ± 0.2 mm	5.9 ± 0.2 mm	6.8 ± 0.2 mm
Cable Weight (Approx.)		21 kg/km	26 kg/km	33 kg/km	42 kg/km

Table 3 Construction of INDOOR, DISTRIBUTION, LSZH, FIBER OPTIC CABLE.

TEMPERATURE RANGE

For the cables covered by this specification, the following temperature ranges apply.

- Operation Temperature : -40°C to +80°C
- Installation Temperature : -40°C to +80°C
- Storage/Shipping Temperature : -40°C to +85°C

MECHANICAL SPECIFICATION

Item		Specification			
Number of fibers		4 Core	6 Core	8 Core	12 Core
Maximum Tensile load	Installation	600N	600N	600N	600N
	Operation	300N	300N	300N	300N
Minimum bending Radius	Installation	15x	15x	15x	15x
	Operation	10x	10x	10x	10x

Table 4 Mechanical Specification of the cable.



MECHANICAL PERFORMANCE TEST

- Tensile loading Test TIA/EIA-455-33A and IEC 60794-1-2-E1A
- Compression Test TIA/EIA-455-41A and IEC 60794-1-2-E3
- Repeated Bending Test TIA/EIA-455-104A and IEC 60794-1-2-E6
- Impact Test TIA/EIA-455-25B and IEC 60794-1-2-E4
- Cable Bending Test IEC 60794-1-2-E11B
- Cable Twist or Torsion Test TIA/EIA-455-85A and IEC 60794-1-2-E7
- Temperature Cycling Test TIA/EIA-455-3A and IEC 60794-1-2-F1
- Water Penetration Test TIA/EIA-455-82B and IEC 60794-1-2-F5

ORDER INFORMATION

INDOOR, DISTRIBUTION, FR-LSZH, FIBER OPTIC CABLE

Descriptions	OS2, SM 9/125 µm	OM2, MM 50/125 µm	OM3, MM 50/125 µm	OM4, MM 50/125 µm	OM5, MM 50/125 µm
4 Core	UFC9204LSZH	UFC5204LSZH	UFC4204	UFC3204	UFC2204
6 Core	UFC9206LSZH	UFC5206LSZH	UFC4206	UFC3206	UFC2206
8 Core	UFC9208LSZH	UFC5208LSZH	UFC4208	UFC3208	UFC2208
12 Core	UFC9212LSZH	UFC5212LSZH	UFC4212	UFC3212	UFC2212

Specifications subject to change without notice.

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