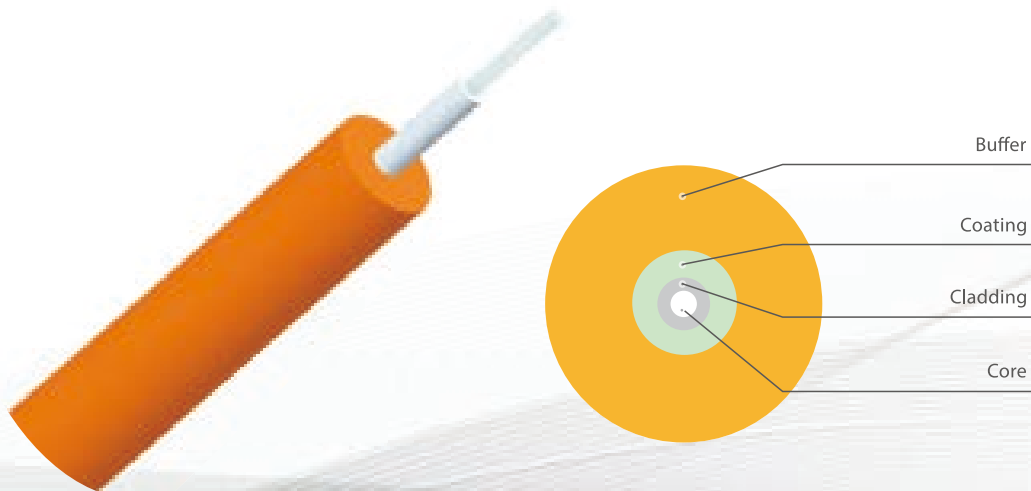


INDOOR CABLE

Tight-buffered Fiber



Applications

- Tight-buffered fiber is the basic element of various indoor cables. Different buffer materials can meet different mechanical and environmental requirements, such as large tensile (crush), high or low temperature, frequent bends, low smoke, no corrosive, field use, distribution cabinet (frame) and other generic use.
- Tight-buffered fibers can also be used in pigtails, optical connections of various active and passive devices, instruments and terminal units.

Features

- Good mechanical and environmental characteristics
- The strippability characteristics of buffer meet the customer requirements
- Meet various requirements of market and clients

Cable Performance

Items	Unit	G.652.A	G.652.B	G.652.C	G.652.D
Mode Field Diameter(1310nm)	μm	8.6 ~ 9.5±0.6			
Cladding Diameter	μm	125.0±1.0			
Core-Cladding Concentricity Error	μm	≤0.6			
Cladding Non-Circularity	%	≤1.0			
Coating Diameter(un-colored)	μm	245±10			
Coating Diameter(colored)	μm	250±15			
Cladding-Coating Concentricity Error	μm	≤12.5			
Cut-off Wavelength λ _{CC}	nm	≤1260			
Bend Loss R= 30mm, 100turns	dB	1550nm≤0.1	1625nm≤0.1	1625nm≤0.1	1625nm≤0.1
Attenuation Coefficient 1310nm	dB/km	≤0.35(I Grade) / ≤0.38(II Grade)			
Attenuation Coefficient 1550nm	dB/km	≤0.21(I Grade) / ≤0.24(II Grade)			
Attenuation Coefficient 1625nm	dB/km	≤0.24(I Grade) / ≤0.28(II Grade)			

Items(G657)	Unit	G.657.A1	G.657.A2	G.657.B2	G.657.B3
Mode Field Diameter(1310nm)	μm	8.6 ~ 9.5±0.4	8.6 ~ 9.5±0.4	6.3 ~ 9.5±0.4	6.3 ~ 9.5±0.4
Cladding Diameter	μm	125.0±0.7			
Core-Cladding Concentricity Error	μm	≤0.5			
Cladding Non-Circularity	%	≤1.0			
Coating Diameter(un-colored)	μm	245±10			
Coating Diameter(colored)	μm	250±15			
Cut-off Wavelength λ _{CC}	nm	≤1260			
Bend Loss(1550) R= 15mm,10 turns	dB	0.25	0.03	0.03	-
Bend Loss(1550) R= 10mm,1 turns	dB	0.75	0.10	0.50	0.03

Bend Loss(1550) R= 7.5mm,1 turns	dB	-	0.50	0.50	0.08
Bend Loss(1550) R= 5mm,1 turns	dB	-	-	-	0.15
Bend Loss(1625) R= 15mm,10 turns	dB	1.00	1.00	0.10	-
Bend Loss(1625) R= 10mm,1 turns	dB	1.50	0.20	0.20	0.10
Bend Loss(1625) R= 7.5mm,1 turns	dB	-	1.00	1.00	0.25
Bend Loss(1625) R= 5mm,1 turns	dB	-	-	-	0.45
Attenuation Coefficient(1380nm)	dB/Km	≤0.38	≤0.38	≤0.50	≤0.50
Attenuation Coefficient(1383nm)	dB/Km	≤0.38	≤0.38	-	-
Attenuation Coefficient(1550nm)	dB/Km	≤0.24	≤0.24	≤0.30	≤0.30
Attenuation Coefficient(1625nm)	dB/Km	≤0.28	≤0.28	≤0.40	≤0.40

Items(Multi-Mode)	Unit	A.1a.1	A.1a.2	A.1b
Core Diameter	μm	50.0±2.5	50.0±2.5	62.5±2.5
Cladding Diameter	μm	125.0±2.0		
Core Non-Circularity	%	≤6.0		
Cladding Non-Circularity	%	≤2.0		
Core-Cladding Concentricity Error	μm	≤0.5		
Coating Diameter(uncolored)	μm	245±10		
Coating Diameter(colored)	μm	250±15		
Cladding-Coating Concentricity Error	μm	≤12.5		
Numeral Aperture(NA)	-	-	0.20±0.015	0.275±0.015
Attenuation Coefficient(850nm)	dB/Km	2.4	2.5	2.8
Attenuation Coefficient(1300nm)	dB/Km	0.7	0.8	0.7
Modal Bandwidth(850nm)	Mhz-Km	200	1500	100
Modal Bandwidth(1300nm)	Mhz-Km	200	500	200

Note:All the values in the table, which are for reference only, are subject to change without notice.

Optical Characteristic

Fiber Type		Attenuation (dB/km)		Full Bandwidth (MHZ.km)	Effective Bandwidth (MHZ.km)	1Gbps Reach (m)	10Gbps Reach (m)	Min Bend Radius (mm)
Multi Mode		850/1300nm		850/1300nm	850nm	850/1300nm	850/1300nm	/
		Typical	Max					
62.5/125	OM1	3.0/1.0	3.5/1.5	200/500	220	275/550	33/300	30
50/125	OM2	3.0/1.0	3.5/1.5	500/500	510	550/550	82/300	30
50/125-150	OM2+	3.0/1.0	3.5/1.5	700/500	850	750/550	150/300	30
50/125-300	OM3	3.0/1.0	3.5/1.5	1500/500	2000	1000/550	300/300	30
50/125-550	OM4	3.0/0.7	3.0/1.0	3500/500	4700	1000/550	550/550	30
Single Mode		1310/1550nm		/	/	1310/1550nm	1310/1550nm	/
		Typical	Max					
9/125μm	G652D	0.36/0.22	0.5/0.4	—	—	5000m	10000-40000m	30
9/125μm	G657A1	0.36/0.22	0.5/0.4	—	—	5000m	10000-40000m	10
9/125μm	G657A2	0.36/0.22	0.5/0.4	—	—	5000m	10000-40000m	7.5