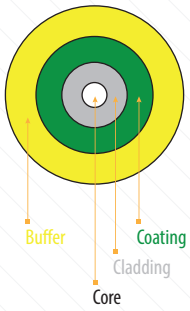
Tight-Buffered Fiber



Features
- Good mechanical and environmental characteristics;
- The strippability characteristics of buffer meet the relevant standards or customer requirements;
- Meet various requirements of market and clients.

Application
- Tight-buffered fiber is the basic element of various indoor cabies. Because of different buffer materials, the relevant indoor cables made out of tight-buffered fibers can meet different mechianical and environmental requirements, forexample, large tensile(crush), high or low temperature, frequent bends, low smoke , no corrosive, environmental, field use, distribution cabinet(frame) and other generic use, etc;
- Tight-buffered fibers with various buffer material can also be used in pigtails, optical connections of various optical active and passive devices, instruments and terminal units.

Options
- Fiber Type: G.652, G.655, G.657 single-mode fiber, A1a or A1b mulit-mode fiber, or other types of fiber;
- Material of buffer: Flame-retardant poly vinylchloride(PVC), low smoke zero halogen flame retardant
polyolefin(LSZH), Thermoplastic Polyester Ester Elastomers(Hytrel), or other contracted material;
- Color of buffer: blue, orange, green, brown, gray, white, red, black, yellow, violet, pink, turquoise, or other contracted dimension;
- Outer diameter of fiber: The nominal diameters are 0.580mm and 0.880mm, or other contracted length.
- Delivery Length: 1KM or 2KM or other contracted length;
- Other Requirements: Other contracted special requests.

Specifications

Items		Unit	G.652.D
Dimensitional Specifications and Transmission Characteristics of single-mode fiber-G.652D			
Mode Field Diameter(1310nm)		um	8.7-9.5
Cladding Diameter		um	125.0±1.0
Core-Cladding Concentricty Error		um	≤0.6
Cladding Non-Circularity		%	≤1.0
Coating Diameter(un-colored)		um	245±7
Coating Diameter(colored)		um	250±15
Cladding-Coating Concentricty Error		um	≤12.0
Cut-off Wavelength λ cc		um	≤1260
Bend Loss (R=30mm,100turns)		dB	1625nm≤0.1
Attenuation Coefficient	1310nm	dB/KM	≤0.34
	1550nm		≤0.20
	1625nm		≤0.23

Items		Unit	G.652.D
Dimensitional Specifications and Transmission Characteristics of single-mode fiber-G.655			
Mode Field Diameter(1310nm)		um	9.0-10.1
Cladding Diameter		um	125.0±0.7
Core-Cladding Concentricty Error		um	≤0.6
Cladding Non-Circularity		%	≤1.0
Coating Diameter(un-colored)		um	245±7
Coating Diameter(colored)		um	250±15
Cladding-Coating Concentricty Error		um	≤12.0
Cut-off Wavelength λ cc		um	≤1450
Bend Loss (R=30mm,100turns)		dB	1625nm≤0.05
Attenuation Coefficient	1550nm	dB/KM	≤0.22
	1625nm		≤0.24

Code	Fiber Type	Norminal Core Diameter(um)	Full Launching Bandwidth 850nm (MHz•KM)	Full Launching Bandwidth 1300nm(MHz•KM)	Effective Mode Bandwidth 850nm*(MHz•KM)
The Code Table of Multi-Fiber Bandwith Characteristics					
OM1	A1b	50	≥200	≥600	Inapplicable
OM2	A1a	62.5	≥600	≥1200	Inapplicable
OM3	A1a.2	50	≥1500	≥500	≥2000
OM4	A1a.3	50	≥3500	≥500	≥4700
OM5	A1a.4	50	≥3500	≥500	≥4700
			≥1850 (953nm)	≥500	≥2470(953nm)

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Specification

Items			Unit	G.657A1	G.657A2	G.657B3
Dimensional Specifications and Transmission Characteristics of Single-mode Fiber-G.657						
Mode Field Diameter(1310nm)			um	8.4-9.2	8.4-9.2	8.4-9.3
Cladding Diameter			um	125.0±0.7	-	-
Core-Cladding Concentricty Error			um	≤0.5	-	-
Cladding Non-Circularity			%	≤0.7	-	-
Coating Diameter(un-colored)			um	245±5	-	-
Coating Diameter(colored)			um	245±5	-	-
Cut-off Wavelength λ cc			um	≤1260	-	-
Bend Loss	R=15mm,10turns	1550nm	dB/KM	≤0.25	≤0.03	-
	R=10mm,1turns	1550nm		≤0.75	≤0.1	≤0.03
	R=7.5mm,1turns	1550nm		-	≤0.2	≤0.08
	R=5mm,1turns	1550nm		-	-	≤0.15
	R=15mm,10turns	1625nm		-	≤0.1	-
	R=10mm,1turns	1625nm		≤1.5	≤0.2	≤0.15
	R=7.5mm,1turns	1625nm		-	≤0.5	≤0.25
	R=5mm,1turns	1625nm		-	-	≤0.45
Attenuation Coefficient		1310nm		≤0.35	≤0.35	≤0.35
		1385nm		≤0.35	≤0.35	≤0.35
		1550nm		≤0.21	≤0.21	≤0.21
		1625nm		≤0.23	≤0.23	≤0.23

Items		Unit	A1a	A1b
Dimensional Specifications and Transmission Characteristics of Multi-mode Fiber				
Core Diameter		um	50.0±2.5	62.5±2.5
Cladding Diameter		um	125.0±1.0	
Core Non-Circulaarity		um	≤6.0	
Cladding Non-Circularity		%	≤1.0	
Core-Cladding Concentricity Error		um	≤1.5	
Coating Diameter	1310nm	um	245±7	
	1385nm	um	250±15	
Cladding-Coating Concentricty Error		um	≤12.0	
Numeral Aperture(NA)		-	0.200±0.015	0.275±0.015
Optical Characteristics			ClassA / ClassB	
Attrnuation coefficient	850nm	dB/KM	≤2.3/≤2.5	≤2.7/≤3.0
	1300nm	dB/KM	≤0.6/≤0.7	≤0.6/≤0.8
Full injection bandwidth	850nm	MHz•KM	≥600/≥500	≥200/≥160
	1300nm	MHz•KM	≥1200/≥500	≥600/≥500

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