


G.652D –Single-mode Optical Fiber

Items	Description	Typical Value
 Optical Characteristics	Attenuation @1310 nm	≤0.34 dB/km
	@1383nm (After H ₂ -aging)	≤0.32 dB/km
	@1550 nm	≤0.20 dB/km
	@1625 nm	≤0.23 dB/km
	Attenuation Non-uniformity @1310 nm, 1550 nm	≤0.03 dB
	Point Discontinuity @1310 nm, 1550 nm	≤0.03 dB
	Attenuation Vs. Wavelength @1260~1330 nm	≤0.07 dB/km
	@1288~1330 nm	≤0.03 dB/km
	@1525~1575 nm	≤0.02 dB/km
	Zero Dispersion Wavelength	1300~1324 nm
	Zero Dispersion Slope	≤0.093 ps/nm ² ·km
	Dispersion @1288~1339 nm	≤3.5 ps/nm·km
	@1271~1360 nm	≤5.3 ps/nm·km
@1550 nm	≤18 ps/nm·km	
@1625 nm	≤22 ps/nm·km	
Polarization Mode Dispersion (PMD)	*note	
Cable Cutoff Wavelength (λ _{cc})	≤1260 nm	
Macro-bending Loss (100turns,Φ50 mm) @1550 nm	≤ 0.05 dB	
(100turns,Φ50 mm) @1625 nm	≤ 0.10 dB	
Mode Field Diameter (MFD) @1310 nm	9.2±0.4μm	
Effective Group Index of Refraction @1310 nm	1.466	
@1550 nm	1.467	
Dimensional Characteristics	Fiber Curl Radius	≥4.0 m
	Cladding Diameter	125 ± 0.7μm
	Core/Clad Concentricity	≤0.5μm
	Cladding Non-Circularity	≤1.0%
	Coating Diameter	243± 5μm
	Cladding/Coating Concentricity	≤6μm
	Coating Non-circularity	≤6.0%
Mechanical Characteristics	Proof Test	≥1.0%
	Tensile Strength(10m Gauge length) (15% Weibull Probability)	2.76 GPa
	(50% Weibull Probability)	3.45 GPa
	Fatigue Resistance Parameter (N _d)	≥ 20
Peak Coating Strip Force	1.3~8.9 N	
Environmental Characteristics	Temperature Cycling Induced Attenuation (-60°C ~ +85°C) @1310nm, 1550nm, 1625 nm	≤ 0.05 dB/km
	Damp Heat Aging Induced Attenuation (+85±2°C, 85%RH,30days) @1310nm, 1550nm, 1625 nm	≤ 0.05 dB/km
	Heat Aging Induced Attenuation (85±2°C, 30days) @1310nm, 1550 nm, 1625 nm	≤ 0.05 dB/km
	Water Immersion Induced Attenuation (23±2°C, 30days) @1310nm, 1550 nm, 1625 nm	≤ 0.05 dB/km

***Note: PMD only for individual fiber, G.652C PMD Maximum 0.3ps/√km, G.652D PMD Maximum 0.2ps/√km.**