


G.652B –Single-mode Optical Fiber

Items	Description	Typical Value	
 Optical Characteristics	Attenuation @1310 nm	≤0.34 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 @1285~1330 nm	≤0.05 dB/km	
		@1525~1575 nm	≤0.05 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
	Polarization Mode Dispersion (PMD)	≤0.2 ps/√km	
	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 @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 (15% Weibull Probability) (10m Gauge length)	2.76 GPa 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℃ ~ +85℃) @1310nm, 1550nm, 1625 nm	≤ 0.05 dB/km	
	Damp Heat Aging Induced Attenuation (+85±2℃, 85%RH,30days) @1310nm, 1550nm, 1625 nm	≤ 0.05 dB/km	
	Heat Aging Induced Attenuation (85±2℃, 30days) @1310nm, 1550 nm, 1625 nm	≤ 0.05 dB/km	
	Water Immersion Induced Attenuation (23±2℃, 30days) @1310nm, 1550 nm, 1625 nm	≤ 0.05 dB/km	