Single Mode 9/125 G657B3

This single mode fiber inherits all merits of G657 family. This full-spectrum single-mode fiber has solid trench-assisted profile with large Mode Field Diameter, which can be easily spliced by commercial splicer and procedure. It has very high and stable dynamic fatigue value(N_d), which provides significantly improved fiber durability when used in harsh environments and at small bending radii conditions
It is designed specifically for Fiber-To-The-Home(FTTH), enterprise network and any other applications where ultra low bending-loss at small bending radii is needed. Down to 5 mm bending radius, Ultra can meet the complex installation conditions in MDU and FTTH, such as wall corner, stapling, high Load tension, etc.
The single mode fiber meets or exceeds the ITU-T Recommendation G.657.B3 and the IEC 60793-2-50 type B1.3 Optical Fiber Specification.

Optical Characteristics for Single Mode 9/125 μm (G657B3)

CHARACTERISTIC		CONDITION	SPECIFIC VALUE	UNIT
Optical Characteristics				
Attenuation		1310 nm	≤0.35	[dB/km]
		1383 nm (after H_2-aging)	≤0.35	
		1550 nm	≤0.21	
		1625 nm	≤0.23	
Attenuation vs. Wavelength Max. α Difference		1285-1330 nm	≤0.03	[dB/km]
		1525-1575 nm	≤0.02	
Zero Dispersion Wavelength			1300-1324	[nm]
Zero Dispersion Slope			≤0.092	[ps/(nm².km)]
PMD	Maximum Individual Fiber		≤0.10	[ps/√km]
	Link Design Value (M=20, Q=0.01%)		≤0.06	
	Typical Value		0.04	
Cable Cutoff Wavelength λ_{cc}			≤1260	[nm]
Mode Field Diameter (MFD)		1310 nm	8.2~9.0	[μm]
		1550 nm	9.1~10.1	[μm]
Effective Group Index of Refraction (N_{eff})		1310 nm	1.468	
		1550 nm	1.469	
Point Discontinuities		1310 nm	≤0.05	[dB]
		1550 nm	≤0.05	[dB]
Macro Bending Induced Attenuation				
1 Turn Around a Mandrel @ 5mm Radius		1550 nm	≤0.15	[dB]
1 Turn Around a Mandrel @ 5mm Radius		1625 nm	≤0.45	[dB]
1 Turn Around a Mandrel @ 7.5mm Radius		1550 nm	≤0.08	[dB]
1 Turn Around a Mandrel @ 7.5mm Radius		1625 nm	≤0.25	[dB]
1 Turn Around a Mandrel @ 10mm Radius		1550 nm	≤0.03	[dB]
1 Turn Around a Mandrel @ 10mm Radius		1625 nm	≤0.10	[dB]
Geometrical Characteristics				
Cladding Diameter			125.0±0.7	[μm]
Cladding Non-Circularity			≤0.7	[%]
Coating Diameter			245±5	[μm]
Coating/Cladding Concentricity Error			≤12.0	[μm]
Coating Non-Circularity			≤6.0	[%]
Core/Cladding Concentricity Error			≤0.5	[μm]
Curl (Radius)			≥4	[m]
Delivery Length			2.1 to 50.4	[km/reel]
Environmental Characteristics		1310 nm, 1550 nm & 1625 nm		
Temperature Dependence (Induced Attenuation)		- 60°C to +85°C	≤0.05	[dB/km]
Temperature Humidity Cycling (Induced Attenuation)		-10°C to +85°C, 98% RH	≤0.05	[dB/km]
Damp Heat Dependence (Induced Attenuation)		85°C and 85% RH, for 30days	≤0.05	[dB/km]
Water Soak Dependence (Induced Attenuation)		23°C, for 30days	≤0.05	[dB/km]
Dry Heat Aging		85°C, for 30days	≤0.05	[dB/km]
Mechanical Characteristics				
Proof Test			≥9.0	[N]
			≥1.0	[%]
			≥100	[Kpsi]
Coating Strip Force		Typical Average Force	1.5	[N]
		Peak Force	≥1.3 & ≤8.9	[N]
Dynamic Stress Corrosion Susceptibility Parameter (N_d, Typical)			≥27	