

Singlemode Optical Fiber T-SMF



TeraCom Singlemode optical fiber (T-SMF) is designed to provide optimum performance in access and metropolitan access applications. TeraCom Singlemode fiber meets the expanded ITU 652 Table C requirements and can be used in loose tube, tight buffered and ribbon cable configurations.

T-SMF with its lower attenuation and PMD is optimized for Access and Enterprise networks, where very high rates of transmission are becoming increasingly more prevalent. T-SMF offers excellent reliability and durability, even in harshest environments.

Features	Benefits
› Lower PMD	Extends the PMD distance performance, thereby reducing regeneration cost
› Lower 1550 nm attenuation	Extends transmission equipment reach Capability
› Low Hydrogen sensitivity	Excellent reliability
› Superior Fiber Coating	Ease of stripping and increased reliability
› Low Water Peak	Can be used for CWDM applications

Optical Specifications	
› Attenuation @ 1310 nm	£ 0.35 dB / Km
› Attenuation @ 1550 nm	£ 0.20 dB / Km
› Attenuation @ 1383 nm	£ 0.6 dB / Km
› Attenuation Uniformity	Nopoint discontinuity greater then 0.1 dB at 1310nm or 1550nm>
› Attenuation with Bending	
-100 turns, 60mm Diameter @ 1550nm	£0.05 dB
-1 turn, 32 mm Diameter @ 1550nm	£0.5 dB
› Cutoff Wavelength	£1320 nm
› Cutoff Wavelength (Cabled)	£1260 nm
› Chromatic Dispersion 1285nm~1330nm	£3.2ps/nm.km
› Chromatic Dispersion @ 1550nm	£18 ps/nm.km
› Zero Dispersion Slope	£ 0.092ps/nm ² .km
› Zero Dispersion Wavelength	1302~1322nm
› PMD link design value as per IEC SC86A	£ 0.1 ps/ $\sqrt{\text{km}}$

method 1, 1997

Geometrical Specifications	
‣ Mode Field Diameter @ 1310nm	9.2 ±0.4 um
‣ Mode Field Diameter @ 1550nm	10.2 ±0.8 um
‣ Core Diameter (Nominal)	8.2 um
‣ Cladding Diameter	125 ±1.0 um
‣ Coating Diameter	247 ±7 um
‣ MFD Concentricity Error	£ 0.7 um
‣ Cladding Non – circularity	£ 1%
‣ Coating / Clad concentricity error	£ 12um
‣ Fiber Curl (radius)	> 4 meter

Mechanical / Environmental Specifications	
‣ Proof Test Level	100 kpsi (0.70GN/m ² = 1%)
‣ Coating Strip forc	8.9 N max, 1.3N minimum
‣ Dynamic Tensile Strength	³4.0GN/m ² (580kpsi)
‣ Dynamic Fatigue, Tensile	N _d ³ 20 unaged and aged
‣ Dynamic Fatigue, 2Point bend	N _d ³ 20 unaged and aged
‣ Static Fatigue	N _s ³20 aged at 85 ° C and 85% humidity
‣ Operating Temperature	- 60 ° C to + 85 ° C
‣ Induced attenuation at 1550nm	£0.05dB/km (-60 °C ~ +85 °C /95% relative humidity)
‣ Induced attenuation at 1550 nm	£0.05dB/km (Water Immersion)

PACKING

Fiber Length (Km / Reel) **12.6 Km to 50.4 Km**
Standard winding Tension **³ 50 g**

Teracom Singlemode Fiber is fully ITU G.652, IEC 60793-1 and Telcordia GR-20-CORE compliant.