



STL HD A2 250 Fibre

ITU-T G.657.A2 Single Mode Optical Fibre

Product Description

STL HD A2 250 fibre is an ultra-low bend loss ITU-T G.657.A2 compliant fibre with a 250-micron diameter. The induced loss of this fibre at the tightest bends is a factor of two lower than the ITU-T G.657.A2 standard providing installation and operational efficiencies in high density (HD) networks. This ultra-low bend loss extends to the longer wavelengths required for future system upgrades. Fibres with ultra-low bend loss allow operators to optimize their physical asset utilization and future proof their high-density networks.

Product Application

The need to improve network installation and operational efficiencies has led to wider application of bend-insensitive fibres. STL HD A2 250 fibre is suitable for use in any high-density network.

Product Benefits

- Provides installation and operational efficiencies and enables the use of compact closures and accessories - Due to ultra-low bend loss.
- Future system ready - In that low bend loss extends to the longer wavelengths required for future system upgrades.
- Compatible with legacy networks - Due to low loss splicing to G.652.D and G.657.A1 fibres

Standard Compliance

STL routinely calibrates and recertifies process equipment and measurement benches against internationally traceable standards from NPL/NIST, and follow test methods compliant with EIA/TIA, CEI-IEC and ITU standards.

Product Specifications

Optical Parameters		
Attenuation Max. (dB/km)		
1310 nm	≤ 0.35	
1383 nm		
1550 nm	≤ 0.21	
1625 nm	≤ 0.23	
Macro bend loss (dB)		
1 turn 7.5 mm radius	1550nm	≤ 0.2
1 turn 10 mm radius		≤ 0.1
10 turns 15 mm radius		≤ 0.03
1 turn 7.5 mm radius	1625nm	≤ 0.2
1 turn 10 mm radius		≤ 0.5
10 turns 15 mm radius		≤ 0.1
Mode Field Diameter (μm) at 1310 nm		8.6 ± 0.4
Mode Field Diameter (μm) at 1550 nm		9.6 ± 0.5
Cable cut-off wavelength (nm)		≤ 1260
Zero dispersion wavelength (nm)		1300 to 1324
Dispersion at 1550nm (ps/nm.km)		≤ 18
Zero Dispersion Slope (ps/nm ² .Km)		≤ 0.092
PMD LDV (ps/√.km)		≤ 0.06
Individual Fibre PMD* (ps/√.km) * Individual PMD values may change when cabled		≤ 0.1
Point of discontinuities 1310nm & 1550nm (dB)		≤ 0.05
Geometrical Parameters		
Cladding Diameter (μm)		125 ± 0.7
Core Clad Concentricity error (μm)		≤ 0.5
Cladding Non-circularity (%)		≤ 0.8
Coating Diameter (uncoloured) (μm)		242 ± 5
Coating Cladding Concentricity error (μm)		≤ 10
Mechanical & Environmental Characteristics		
Temperature dependence	-60°C to +85°C	≤ 0.05 (Induced Attenuation at 1310, 1550, 1625 nm (dB/km))
Temperature humidity cycling	-10°C to +85°C, 95% RH	
Water Immersion	30 days, 23 ± 2°C	
High temperature and humidity aging	30 days, 85 ± 2°C, 85% RH	
Accelerated Aging (Temperature)	30 days, 85 ± 2°C, 85% RH	
Proof Testing		≥ 125 (kpsi) (0.86GN/m ²) (This is equivalent to 1.2% strain)
Fibre Curl (m)		≥ 4
Performance Characteristics		
Coating strip force		≥ 1.3 N (0.3 lbf) and ≤ 5.0 N (1.1 lbf)
Dynamic fatigue parameter (N ^d)		≥ 20
Effective group index of refraction (Typical Values)		1.4678 at 1310 nm 1.4685 at 1550 nm 1.4689 at 1625 nm
Attenuation in the wavelength region from 1285 - 1330 nm in reference to the attenuation at 1310 nm (dB/km)		≤ 0.03
Attenuation increase in the wavelength region from 1525 - 1575 nm in reference to the attenuation at 1550 nm (dB/km)		≤ 0.02

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For additional information please contact your sales representative.

You can also visit our website at www.stl.tech

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