Product Specification

STL DOF-Lite 656 Fibre

ITU-T G.655.E/G.656 Single Mode Optical Fibre

Product Description

STL DOF-Lite 656 Single Mode Optical Fibre is a Non-Zero Dispersion Shifted Fibre (NZ-DSF).

Product Application

STL DOF-Lite 656 Fibre was designed for high data-rate, multi-wavelength long haul transmission. It is suitable for transmission in the conventional C-band (1530-1565 nm) and L-band (1565- 1625 nm).

Product Benefits

STL DOF-Lite 656 Fibre provides lower dispersion and dispersion slope which can be advantageous for metro networks. It is also compliant with current 100G/200G and beyond coherent technologies for long-haul networks.

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.

Parameters

Optical Parameters		
Attenuation Max. (dB/km)		
1550 nm		≤ 0.21
1625 nm		≤ 0.24
Macro bend loss (dB)		
100 turns 30 mm radius	1550nm	≤ 0.05
1 turn 16 mm radius	1625nm	≤ 0.05
100 turns 30 mm radius		≤ 0.1
Mode Field Diameter (µm) at 1550 nm		9.2 ± 0.5
Cable cutoff wavelength (nm)		≤ 1450
Dispersion at 1460 nm (ps/nm.km)		1.00 to 4.60
Dispersion at 1530 nm (ps/nm.km)		3.02 to 8.24
Dispersion at 1550nm (ps/nm.km)		3.60 to 9.28
Dispersion at 1565 nm (ps/nm.km)		3.80 to 10.13
Dispersion at 1625 nm (ps/nm.km)		4.58 to 13.43
PMD LDV (ps/√ km)		≤ 0.06
Individual Fibre PMD* (ps/√ km) * Individual PMD values may change when cabled		≤ 0.1
Point of discontinuities 1550nm & 1625nm (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)		≤ 12
Environmental Characteristics		
Temperature dependence	-60°C to +85°C	≤ 0.05 (Induced Attenuation at 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	
Mechanical Characteristics		
Proof Testing		≥ 125 (kpsi) (0.86GN/m²) (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)		1.4670 at 1550 nm
Attenuation in the wavelength region from 1525 - 1575 nm in reference to the attenuation at 1550 nm (dB/km)		≤ 0.02

01/072023

For additional information please contact your sales representative.
You can also visit our website at www.stl.tech

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