ADSS Fiber Optic Cable 300 SPAN B1.3 PE

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Variants

12 Core 96 Core 72 Core 48 Core 24 Core

Details

ADSS Optical Fiber Cable – 300 Span

Fiber Specifications

Parameter	Specification
Material	Quartz Glass (Silicon Dioxide)
Core	9 ?m (High Refractive Index)
Cladding	125 ?m (Low Refractive Index)
Coating	245 ?m (Protective Resin)

Optical Parameters

Parameter	Requirement	Standard
Core Non-Circularity	? 6%	ITU-T G.652
Cladding Diameter	125.0 ± 0.7 ?m	-
Core / Cladding Concentricity	? 0.6 ?m	-
Cladding Non-Circularity	? 1.0%	-
Coating Diameter	245 ± 10 ?m	-

Cladding / Coating Concentricity	? 12 ?m	-
Attenuation Coefficient	1310 nm: ? 0.35 dB/km 1550 nm: ? 0.21 dB/km	-
Zero Dispersion Slope	? 0.092 ps/(nm²·km)	-
Zero Dispersion Wavelength	1300 – 1324 nm	-
Polarization Dispersion	? 0.20 ps/?km	-
Mode Field Diameter (1310 nm)	9.0 ± 0.4 ?m	-
Cut-off Wavelength	1170 – 1330 nm	-
Chromatic Dispersion	1288 – 1339 nm: ? 3.4 ps/(nm·km) 1550 nm: ? 18 ps/(nm·km) 1625 nm: ? 22 ps/(nm·km)	-

Cable Parameters

Parameter	Value
Fibers per Loose Tube	6
Number of Tubes	2
Inner Sheath Thickness	1.0 mm
Outer Sheath Thickness	1.7 mm
Aramid Area	2.8 mm²
Cable Diameter	13 mm (±5%)
Cable Cross-Section	106 mm²
Cable Weight	105 kg/km (±10%)

Mechanical & Environmental Performance

Parameter	Value
RTS (Rated Tensile Strength)	4800 N
MAT (Maximum Allowable Tension)	1900 N
Static Bending Radius	? 174 mm
Dynamic Bending Radius	? 290 mm
Operating Temperature	-40°C to +70°C
Installation Temperature	-10°C to +40°C

Test Requirements

Test Type	Standard	Key Criteria
Tensile Test	IEC 60794-1-21-E1	RTS: No break at 100% RTS. UOS (60% RTS): Fiber strain < 0.35%, no added attenuation. MAT (40% RTS): Strain < 0.05%.
Crush Test	IEC 60794-1-21-E3	? 0.1 dB attenuation at 1550 nm under 2200 N; no residual attenuation.
Impact Test	IEC 60794-1-21-E4	450 g weight, 1 m height, 5 impacts. No sheath cracks or residual attenuation.
Repeated Bending	IEC 60794-1-21-E6	30 bends under 150 N load. No cracks or residual attenuation.
Torsion Test	IEC 60794-1-21-E7	±180° twist, 10 cycles. No added attenuation or sheath damage.

Temperature Cycling	IEC 60794-1-22-F1	-40°C to +65°C, 2 cycles. Attenuation < 0.05 dB/km at 1550 nm.
Water Penetration	IEC 60794-1-22-F7	1 m head for 1 hour. No leakage.