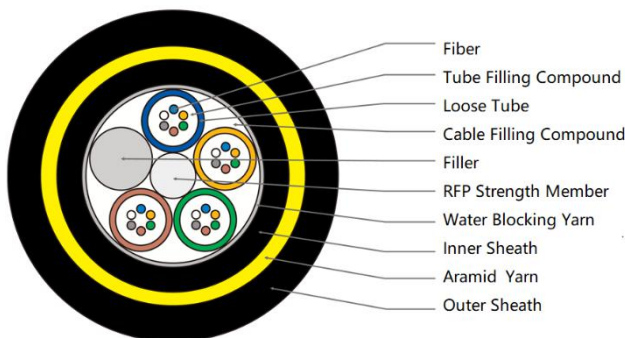


All Dielectric Self-supporting Ariel (ADSS) Cable



Features:

- Good performance of tensile strength
- Large Span
- Self-supporting without shutting off the power
- Small diameter, light weight and friendly installation

Application

- Communication line of overhead high voltage transmission system

Maxwellon TF-3501 series ADSS fiber optic cable construction is that 250um fibers are positioned in a loose tube which is made of high modulus plastics and filled with a water-resistant filling compound. A fiber reinforced plastic (FRP), sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of core as a non-metallic strength member; Tubes are stranded around the strength member into a compact and circular cable core; The cable core is filled with the filling compound which protects it from water ingress and covered with a polyethylene (PE) inner sheath; After the aramid yarn is longitudinally applied over the inner sheath, the cable is completed with a polyethylene (PE) outer or AT (anti-tracking) outer sheath.

Standards:

TF-3501 series ADSS fiber optic cable complies with standard IEEE1222 and IEC60794-1

Fiber Optic Characteristics

Parameters		Specification
Optical Characteristics		
Fiber Type		G652.D
Mode Field Diameter (um)	1310nm	9.1 ± 0.5
	1550nm	10.3 ± 0.7
Attenuation Coefficient (dB/km)	1310nm	≤ 0.35
	1550nm	≤ 0.21
Attenuation Non-uniformity (dB)		≤ 0.05
Zero Dispersion Wavelength (λ0) (nm)		1300 ~ 1324
Max Zero Dispersion Slope (S0max) (ps/(nm ² ·km))		≤ 0.093
Polarization Mode Dispersion Coefficient (PMDQ) (ps/km ^{1/2})		≤ 0.2
Cut-off Wavelength (λcc) (nm)		≤ 1260
Dispersion Coefficient (ps	1288~1339nm	≤ 3.5

/ (nm·km))	1550nm	≤ 18
Effective Group Index of Refraction (Neff)	1310nm	1.466
	1550nm	1.467
Geometric characteristic		
Cladding Diameter (um)		125.0 ± 1.0
Cladding Non-circularity (%)		≤ 1.0
Coating Diameter (um)		245.0 ± 10.0
Coating-cladding Concentricity Error (um)		≤ 12.0
Coating Non-circularity (%)		≤ 6.0
Core-cladding Concentricity Error (um)		≤ 0.8
Mechanical characteristic		
Curling (m)		≥ 4
Proof Stress (GPa)		≥ 0.69
Coating Strip Force (N)	Average Value	1.0 5.0
	Peak Value	1.3 ~ 8.9
Macro Bending Loss (dB)	Φ60mm, 100 Circles, @ 1550nm	≤ 0.05
	Φ32mm, 1 Circle, @ 1550nm	≤ 0.05

Cable Specifications

Parameters		Specification					
Fiber Count		2	6	12	24	60	144
Loose Tube	Material	PBT					
	Fibers per Tube	2	4	4	4	12	12
	Numbers	1	2	3	6	5	12
Filler Rod	Numbers	5	4	3	0	1	0
Central Strength Member	Material	FRP				FRP coated PE	
Water Blocking Material		Water blocking yarn					
Additional Strength Member		Aramid yarns					
Inner Jacket	Material	Black PE (Polythene)					
	Thickness	Nominal: 0.8 mm					
Outer Jacket	Material	Black PE (Polythene) or AT					
	Thickness	Nominal: 1.7 mm					
Cable Diameter (mm)		11.4	11.4	11.4	11.4	12.3	17.8
Cable Weight (kg/km)		94 ~	94 ~	94 ~	94 ~	119 ~	241 ~
		101	101	101	101	127	252
Rated Tension Stress (RTS) (KN)		5.25	5.25	5.25	5.25	7.25	14.5
Maximum Working Tension (40%RTS) (KN)		2.1	2.1	2.1	2.1	2.9	5.8
Everyday Stress (15-25%RTS) (KN)		0.78 ~	0.78 ~	0.78 ~	0.78 ~	1.08 ~	2.17 ~
		1.31	1.31	1.31	1.31	1.81	3.62

Allowable Maximum Span (m)		100
Crush Resistance (N/100mm)	Short time	2200
Suiting Meteorological Condition		Max wind speed: 25m/s Max icing: 0mm
Bending Radius (mm)	Installation	20D
	Operation	10D
Attenuation (After Cable) (dB/km)	SM Fiber @1310nm	≤ 0.36
	SM Fiber @1550nm	≤ 0.22
Temperature Range	Operation (°C)	-40 ~ +70
	Installation (°C)	-10 ~ +50
	Storage & Shipping (°C)	-40 ~ +60

Ordering Information:

ADSS outdoor cable; 2~144 fibers, G652D; Span: 100m, max wind speed: 25m/s, max icing: 0mm; HDPE outer jacket