

ADSS Multitube Loose Tube Fiber Cable

Product Details

Gel free Multi-tube Single Jacket ADSS cables are smaller in diameter and lighter in weight which enables them to be installed aerially in this cable is a stranded loose tube cable with optical fibers placed inside robust buffer tubes stranded around a fiber reinforced plastic (FRP) central strength member. In addition to optical fibers, the buffer tubes contain water-swellable yarns, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. High strength aramid yarns are distributed over the core to provide the required tensile strength for aerial self-supporting applications.

An overall thermoplastic jacket affords the cable both mechanical and environmental protection. Anti-track PE may be added for installation along with high tension lines.

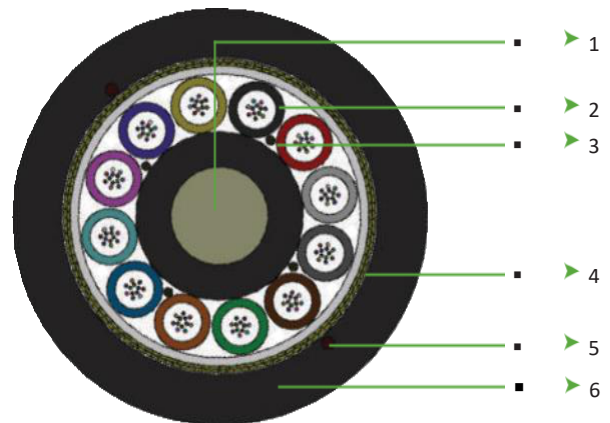
Application

This ADSS Cable is designed for Outside Plant aerial and duct applications in local and campus network loop architectures, FTTH deployments and for self-supporting aerial use, direct use in ducts and aerial-to-duct / underground transitions. These cables are used in aerial applications for short span lengths including deployment along existing aerial rights-of-way and electric transmission towers.

Features & Benefits

- Available up to 144 fiber count in either single-mode or multi-mode optical fiber
- Anti-track PE may be added for installation along with high tension lines (Optional)
- Depending on customer requirements, the cable can be designed to take care of span length, wind speed, ice load and other extra loading on cable
- All dielectric design allows the user to use cable without any grounding due to its immunity to electromagnetic fields
- Can also be used for duct installation depending on right of way
- Multitube design with ripcords for easy and quick mid-span access
- Dry water blocking materials inside and outside the tubes enable full water protection
- Water blocking yarns inside tubes enable rapid, clean fiber splicing and storage inside the joint enclosures
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected.
- Tightly controlled physical parameters.
- Combination of fiber types available on request.

Typical construction of cable



- CENTRAL STRENGTH MEMBER
- LOOSE TUBE WITH FIBERS & WATER SWELLABLE YARNS
- WS YARNS
- CORE WRAPPING WITH ARAMID YARNS
- RIPCORD(S)
- OUTER SHEATH



Aerial



Totally Dielectric



Water blocked



UV Protected

Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, I222-2011 IEE, RoHS

Specifications

Physical characteristics				
Fiber Count		12-72	96	144
Fibers per tube		12	12	12
No. of tube		1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		12.4	12.8	17.6
Nominal Cable Weight (kg/km) ± 10%		100	125	210
Mechanical and environmental characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/100 m NESC Medium/ 100 m NESC Heavy/ 60 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m	NESC Light/100 m NESC Medium/ 80 m NESC Heavy/ 50 m
Maximum Operating Tension	IEC-60794-1-21-E1	2700 N	3100 N	3800 N
Maximum Allowable Tension	IEC-60794-1-21-E1	4200 N	4900 N	6000 N
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2000	2000	2000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Temperature Cycling	IEC-60794-1-22-F1	Installation: -20°C to +60°C	Operation: -30°C to +70°C	Storage: -40°C to +70°C
Water Penetration	IEC-60794-1-22-F5B	1m water head, 3m samples, 24 hrs no water leakage		

** After the test, the change in attenuation shall be ≤ 0.05 dB/km.No damage or crack on cable & no fiber break.

Cabled Optical Fibers characteristics

The optical fibers are in accordance to the specifications ITU-T G.652D. Refer to specific data sheets for details.

Standard Fiber Transmission Characteristics						
Fiber Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (cc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,25 / ≤ 0,26	-	≤ 0,20	≤ 0,10	≤ 1260

** This fiber is also available as a bend insensitive fiber

Standard: Maximum Cable Attenuation 1310 nm: 0.35 1550 nm: 0.25

Available in Low Loss Fiber:

Low Loss: Maximum Cable Attenuation 1310 nm: 0.33 1550 nm: 0.19

Fiber Standard color code (“As Per EIA/TIA 598”)



Tube Standard color code (“As Per EIA/TIA 598”)



Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customized drum lengths available on request.