

## AERIAL- Multitube Single Jacket ADSS

2d0144:AL012:X---S-

### Product Details

Anatolia AERIAL Multi-tube Single Jacket ADSS Cables are small in diameter and light in weight which enable them to be installed aerially in short to medium span applications. This cable is a stranded loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel 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 evenly distributed over the core to provide the required tensile strength for aerial self-supporting applications. An overall thermoplastic jacket provides the cable with both mechanical and environmental protection.

### Product Application

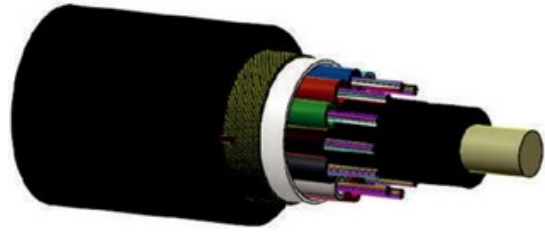
This ADSS Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for short to medium span lengths including deployment along existing aerial Right-of-Way and electric transmission towers. This cable is suitable for aerial-to-duct /underground transitions.

### Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- All dielectric design cable is completely immune to electromagnetic fields
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

### Typical Construction of Cable

1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING WITH ARAMID YARNS
5. RIPCORD(S)
6. 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, IEEE 1222, RoHS

## Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tubes	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	11.2	13.2	16.5
Nominal Cable Weight (kg/km) ± 10%	95	145	200

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
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	2200	2200	2200
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
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 fibre break.

## Cabled Optical Fibres Characteristics

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

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (lcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,1	≤ 1260

\*\* This fibre is also available as a bend insensitive

## Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customised drum lengths available on request.

## Sheath printing details

Anatolia < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

## AERIAL- Multitube Double Jacket ADSS

2d0144:AL012:X---D-

### Product Details

Anatolia AERIAL Multi-tube Double Jacket ADSS are designed having high tensile strength which makes them suitable for medium to long span applications. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swallowable tape to prevent water ingress in the interstices of cable core. High Strength Aramid Yarns are evenly distributed over the inner sheath to provide the required tensile strength for aerial self-supporting applications. An overall Thermoplastic jacket provides the cable with both mechanical and environmental protection.

### Product Application

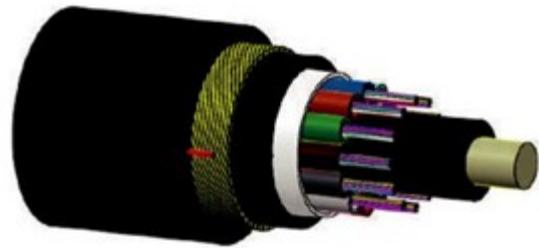
This ADSS Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for medium to long span-lengths including deployment along existing aerial Right of Way and electric transmission towers. This cable is suitable for aerial-to-duct /underground transitions.

### Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Anti-tracking PE can be used for installation in the proximity of high tension power lines (Optional)
- This cable can be designed to suit specific requirements of span length, wind speed and other loading conditions
- All dielectric design cable is completely immune to electromagnetic fields
- Multitube design with ripcords for easy and quick mid-span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

### Typical Construction of Cable

1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & GEL
3. WS YARNS
4. CORE WRAPPING
5. INNER SHEATH
6. ARAMID YARNS
7. RIPCORD(S)
8. 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, IEEE 1222, RoHS

## Specifications

Physical Characteristics				
Fibre Count		12-72	96	144
Fibres per tube		12	12	12
No. of tube		1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm		14.5	15.3	19.0
Nominal Cable Weight (kg/km) ± 10%		145	195	290
Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
NESC Conditions/Span		NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m	NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m	NESC Light/250 m NESC Medium/ 220 m NESC Heavy/ 120 m
Maximum Operating Tension	IEC-60794-1-21-E1	6900 N	7700 N	9200 N
Maximum Allowable Tension	IEC-60794-1-21-E1	11000 N	12000 N	14700 N
Installation Sag %		1%		
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
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 fibre break.

## Cabled Optical Fibres Characteristics

The optical fibres are in accordance to the specifications ITU-T G.652D and ITU-T G.655. Refer to specific data sheets for details.

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD, ps/√km	PMD LDV, ps/√km	Cut-off Wavelength (lcc), nm 1310nm
	1310nm	1550nm	1625nm			
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,1	≤ 1260

\*\* This fibre is also available as a bend insensitive

## Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customised drum lengths available on request.

## Sheath printing details

Anatolia < Fibre Type >< Fibre Count >< Product Type >< OFC Laser Symbol >< Telephone Symbol >< Month & Year of Production >< Cable ID >< Meter Marking >

## AERIAL Gel Free Multitube Single Jacket ADSS

2d0144:AL012:D---S-

### Product Details

Anatolia AERIAL Gel Free Multi-tube Single Jacket ADSS Cables are smaller in diameter and lighter in weight which enables them to be installed aerially in moderate field conditions. This cable is a stranded loose tube cable with optical fibres placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, 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.

### Product Application

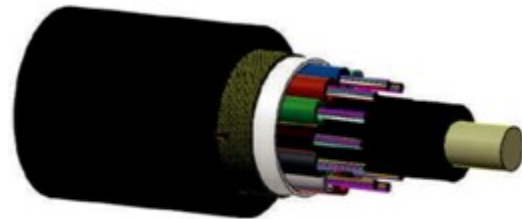
This ADSS Cable is designed for Outside Plant aerial and duct applications in local and campus network loop architectures, FTTH deployments and for self-supporting aerial use, direct use in ducts and aerial-to-duct / underground transitions. These cables are used in aerial applications for short span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

### Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- 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 with out 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 fibre 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 fibre types available on request.

### Typical Construction of Cable

1. CENTRAL STRENGTH MEMBER
2. LOOSE TUBE WITH FIBRES & WATER SWELLABLE YARNS
3. WS YARNS
4. CORE WRAPPING WITH ARAMID YARNS
5. RIPCORD(S)
6. 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, 1222-2011 IEE, RoHS

## Specifications

Physical Characteristics				
Fibre Count	12-72	96	144	
Fibres 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 fibre break.

## Cabled Optical Fibres Characteristics

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

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

\*\* This fibre is also available as a bend insensitive

## Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customised drum lengths available on request.

## Sheath printing details

Anatolia < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol ><Month & Year of Production><Cable ID>< Meter Marking>

## AERIAL Multitube Single Jacket Figure-8

2d0144:8L012:X---S-

### Product Details

Anatolia AERIAL Single Jacket Figure-8 Cables have integrated high strength stranded galvanised steel messenger wire as a support strand which provides high tensile strength to the cable making it suitable for aerial self-supported installations. This cable is a stranded loose tube cable with optical fibre placed inside robust buffer tubes stranded around a fibre reinforced plastic (FRP) central strength member. In addition to optical fibres, the buffer tubes contain water blocking gel, and the cable core is surrounded with water-swellable tape to prevent water ingress in the interstices of cable core. Thermoplastic jacket is applied over the cable core and integrated stranded steel messenger to form a "Figure-8" configuration.

### Product Application

This Cable is designed for outside plant (OSP) aerial self-supported applications in distribution as well as local and campus network loop architectures. These cables are used in aerial applications for short to medium span lengths including deployment along existing aerial Rights-of-way. Once detached from the steel messenger wire, cable is suitable for aerial-to-duct /underground transitions. This design provides easy and economical one-step installation and stable performance over a wide temperature range and is compatible with any local distribution telecommunication network.

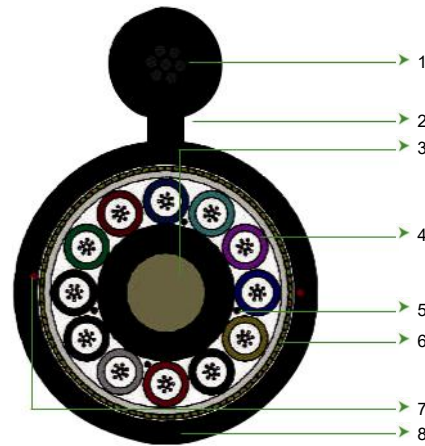
### Features & Benefits

- Available up to 144 fibre count in either single-mode or multi-mode optical fibres
- Figure-8 cable design provides easy and economical one step installation
- Multitube design with ripcords for easy and quick mid span access
- Dry water-blocking technology for gel free core helps in quicker end preparation
- Easily removable rugged thermoplastic jacket
- Flexible, light weight, easy to handle & install
- Tensile and crush resistant
- UV protected
- Tightly controlled physical parameters
- Combination of fibre types available on request

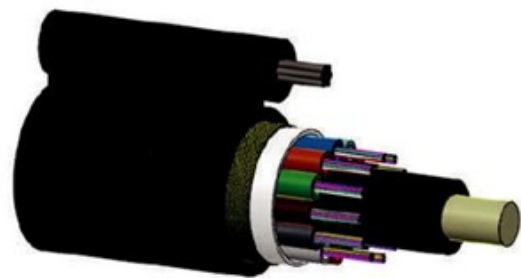
### Performance Standards

Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, IEEE 1222,

### Typical Construction of Cable



1. MESSENGER WIRE
2. NECK
3. CENTRAL STRENGTH MEMBER
4. LOOSE TUBE WITH FIBRES & GEL
5. WS YARNS
6. CORE WRAPPING
7. RIPCORD(S)
8. OUTER SHEATH



## Specifications

Physical Characteristics			
Fibre Count	12-72	96	144
Fibres per tube	12	12	12
No. of tubes	1~6	8	12
Nominal Cable Diameter (mm) ± 0.5mm	10.8 x 19.0	12.5 x 20.5	16.0 x 24.0
Nominal Cable Weight (kg/km) ± 10%	170	220	275

Mechanical and Environmental Characteristics*				
Test	Standard / Notes	Product Performance		
Max. Allowable Tensile Strength (N)	IEC-60794-1-21-E1	10000 N	10000 N	10000 N
Bending Radius	IEC-60794-1-21-E11	Dynamic = 20D, Static = 15D		
Crush Resistance (N/100mm)	IEC-60794-1-21-E3	3000	3000	3000
Impact strength (N.m)	IEC-60794-1-21-E4	25		
Torsion	IEC-60794-1-21-E7	± 180°		
Drip Test	IEC-60794-1-21-E14	30 cm, 70°C, 24 hr		
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 fibre break.

## Cabled Optical Fibres Characteristics

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

Transmission Characteristics						
Fibre Type	Attenuation coefficient, dB/km (Average/Maximum)			PMD,	PMD LDV	Cut-off Wavelength
	1310nm	1550nm	1625nm	ps/√km	ps/√km	(lcc), nm 1310nm
G652D**	≤ 0,35 / 0,36	≤ 0,22 / ≤ 0,23	≤ 0,24 / ≤ 0,26	≤ 0,20	≤ 0,10	≤ 1260

\*\* This fibre is also available as a bend insensitive

## Fibre Standard Colour Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Tube Standard Color Code (As per EIA/TIA 598)

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

## Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km, 4km

Note - Customised drum lengths available on request.

## Sheath printing details

Anatolia < Fibre Type ><Fibre Count><Product Type ><OFC Laser Symbol ><Telephone Symbol >  
><Month & Year of Production><Cable ID>< Meter Marking>