Pull Back Retractable Cables

a10048:DL002:----SE

Product Details

Anatolia Retractable (Pull Back) Fibre Optic Cable is used for outdoor installation into ducts, constructed with colour coded single mode /bend sensitive fibres placed in a thermoplastic tube/ module, protected by two embedded strength members for anti buckling property and are covered with outer sheath which makes the cable robust and installation friendly.

Product Application

These cables can be used for outdoor installation into ducts. Window cuts into the sheath wall allow easy selection and extraction of single fibre unit for re-routing purposes without the need to dispose of excess cable. Modules may be further blown, pushed or pulled (using pulling cords) inside microducts (7/3.5mm).

Features & Benefits

- Available upto 48 fibre count in either single-mode or multi-mode optical fibres
- Special low-bend-sensitivity fibre provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fibre
- · Simple structure, light weight and high practicability
- · UV protected
- Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



- 1. LOOSE TUBE WITH FIBRES & GEL
- 2. EMBEDDED STRENGTH MEMBER

3. OUTER SHEATH





Totally Dielectric

FTTH

High Flexibility

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,

Specifications

| Physical Characteristics | | | | | | | |
|--|--------------------|--|------------------------------|---------------|--|--|--|
| Fibre Count 24 | | | 48 | | | | |
| Fibres per Tube | | 2 | | 2 | | | |
| Nominal Cable Diameter (m | nm) ± 0.5mm | 15 | | 15 | | | |
| Nominal Cable Weight (kg/l | km) ± 10% | 115 | | 115 | | | |
| Mechanical and Environmental Characteristics | | | | | | | |
| Test | Standard / Notes | otes Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | | 1000 | | | | |
| Bending Radius | IEC-60794-1-21-E11 | | Dynamic = 20D, Static = 15 |) | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 500 | | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 4 | | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°C to +70°C | | | | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water he | ead, 3m samples, 24 hrs no v | vater 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | |
|------------------------------|--|-----------------|-----------------|----------|------------|------------------------------|--|
| | Attenuation coefficient, dB/km (Average/Maximum) | | | PMD, ps/ | PMD qlink, | Cut-off Wavelength (lcc), nm | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | |
| G657A1 fibre | ≤ 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 .

Tube / 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 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Blue | Orange | Green | Brown | Grey | White | Red | Natural | Yellow | Violet | Pink | Aqua |

Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 2km Note - Customised drum lengths available on request.

Sheath printing details

ANNTOLIN

EPFU –Airblown Subcriber Cable

2d0024:DM024:W---S-

Product Details

Anatolia Airblown Fibre Optic cable is generally used in FTTx applications. It features light weight and small diameter specifically designed for metro feeder or access networking, especially suitable for air-blowing installation into single or bundled micro ducts. A dual layer thermoplastic material provides the best possible balance between stiffness and flexibility, optimum coefficient of friction and the required crush resistance and tensile strength for enhanced blowing performance.

Product Application

This design gives optimum balance of stiffness and flexibility allowing longer blowing distances compared to other blown cables available in the market which are blown into the smallest duct size using air-blowing cable installations. This technology is common in congested areas, such as metro applications where duct space is very limited, can be installed in new as well as existing ducts.

Features & Benefits

- Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- · Optimum solution for last mile application
- Provides comparable better crush and impact resistance
- Provides optimum co-efficient of friction for enhanced blowing performance
- Longitudinal water protection is enabled by water blocking compounds in tube
- · UV protected
- · Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



1. FIBRES & GEL 2. DUAL LAYER OUTER SHEATH









Cable complies to the latest issue of following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409, RoHS

Specifications

| Physical Characteristics | | | | | | | |
|---|--------------------|--|------------------------------|-------------|--|--|--|
| Fibre Count | | 2-6 | 12 | 24 | | | |
| Fibre Diameter (Micron) | | 250 | 250 | 200 | | | |
| Nominal Cable Diameter (m | m) ± 0.3mm | 2.0 | 2.3 | 2.4 | | | |
| Nominal Cable Weight (kg/k | xm) ± 10% | 5.0 | 6.0 | 8.0 | | | |
| Mechanical and Environmental Characteristics* | | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | | 70N | | | | |
| Bending Radius | IEC-60794-1-21-E11 | | Dynamic = 15D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 800 | | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 3 | | | | |
| 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: -10°C to +50°C Operation: -20°C to +70°C Storage: -20°C to +70°C | | | | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water he | ad, 3m samples, 24 hrs no wa | ter 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | |
|------------------------------|--------|-------------------------|--------|---------|------------------------------|--------|--|
| | Atte | enuation coefficient, o | PMD, | PMD LDV | Cut-off Wavelength (lcc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | |
| G652D fibre ** | ≤ 0,4 | ≤ 0,3 | ≤ 0,4 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | |
| G657A1 fibre | ≤ 0,4 | ≤ 0,3 | ≤ 0,4 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | |

** This fibre is also available as a bend insensitive

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



Packing and Lengths

Packing: Plastic Spool

Lengths (tolerance ±5%): 2/4/6 km

Note - Customised drum lengths available on request.

Sheath printing details

/NNTOLIN

DUCT-Unitube Single Jacket Duct Nano

2d0024:DL024:W---S-

Product Details

Anatolia DUCT Unitube Single Jacket Duct Nano Fibre Optic Cable is used for used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

Product Application

These cables can be used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings.

Features & Benefits

- · Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- · Unitube design allows minimised weight and eases cable installation
- · Small size, fast cable termination and easy cable management
- · Optimum solution for last mile application
- · Easily removable rugged jacket
- · Longitudinal water protection is enabled by water blocking compounds in tube
- · UV protected
- · Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



1. LOOSE TUBE WITH FIBRES & GEL

- 2. PERIPHERAL STRENGTH YARNS
- 3. OUTER SHEATH





Totally Dielectric Water Blocked



Cable Complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409 CPR rating for LSZH sheath

Specifications

| | | Physical Characteristic | cs | | | |
|------------------------------|--------------------|--|--|-----|--|--|
| Fibre Count | | 2-12 | 2-12 24 | | | |
| Nominal Cable Diameter (mm) | ± 0.5mm | 2.5 | | 3.2 | | |
| Nominal Cable Weight (kg/km) | ± 10% | 10 | | 15 | | |
| | Mechanic | al and Environmental Cl | haracteristics | | | |
| Test | Standard / Notes | | Product Performance | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1 100 N @ 0.5% fibre Strain 40 N @ No fibre Strain | | | | |
| Bending Radius | IEC-60794-1-21-E11 | | Dynamic = 15D, Static = 10D | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 100 | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 5 | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°C to +70°C | | | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water he | 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | |
|------------------------------|--|-----------------|-----------------|---------|----------|--------------------|--|
| | Attenuation coefficient, dB/km (Average/Maximum) | | | | PMD LDV, | Cut-off Wavelength | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | (lcc), nm 1310nm | |
| G652D fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | |
| G657A1 fibre | ≤ 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)



Packing and Lengths

Packing: Plastic spool

Lengths (tolerance ±5%): 2 km, 4 km, 6 km

Note - Customised drum lengths available on request.

Sheath printing details

AERIAL Unitube **Figure-8**

2d0012:8L012:W---S-

Product Details

Anatolia AERIAL Unitube Figure-8 Optical Fibre Cable is a Unitube cable, which is intended for use in aerial installations. This product has integrated extra high strength (EHS) stranded steel messenger wire as a support strand which provides high tensile strength to the cable and make them ideal to be used for aerial outdoor applications. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath is placed over the cable core and integrated stranded steel messenger to form a "Figure-8" configuration

Product Application

· Designed suitably for outside plant (OSP) aerial applications for short runs between buildings and also for short, medium span aerial installations

· 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 12 fibre count in either single-mode or multi-mode optical fibres
- · Unitube design allows minimised weight and eases cable installation
- · Small size, fast cable termination and easy cable management
- · Optimum solution for last mile application
- · Figure-8 cable design provides easy and economical one-step installation
- · High tensile strength steel (EHS) strand suited for aerial applications
- · Tensile and crush resistant
- · UV protected
- Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



- 1. STEEL WIRE
- 2 NFCK
- 3. LOOSE TUBE WITH FIBRES & GEL
- 4. PERIPHERAL STRENGTH MEMBERS
- 5. OUTER SHEATH





UV Protected



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

Specifications

| Physical Characteristics | | | | | | | |
|---|--------------------|--|----------------------------|--|--|--|--|
| Fibre Count | Fibre Count 4-12 | | | | | | |
| Nominal Cable Diameter (r | nm) ± 0.5mm | | 5.2 X 10.2 | | | | |
| Nominal Cable Weight (kg/ | ′km) ± 10% | | 48 | | | | |
| Mechanical and Environmental Characteristics* | | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1200 | | | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 15D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 1000 | | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 10 | | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | |
|------------------------------|----------------|-----------------------|-----------------|---------|---------|--------------------|--|
| | Attenuation co | efficient, dB/km (Ave | rage/Maximum) | PMD, | PMD LDV | Cut-off Wavelength | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | (lcc), nm 1310nm | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | |
| G657A1 fibre | ≤ 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)



Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km

Note - Customised drum lengths available on request.

Sheath printing details

ARMOR Unitube Single Jacket Steel Tape Armored

2d0024:BL024:W-TRS-

Product Details

Anatolia ARMOR-Unitube Single Jacket Steel Tape Armored Cables is a central tube cable using optical fibres presented in loose tube and surrounded by Steel Tape armor. To protect the optical fibres from water ingress, the tube is filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. The cables have embedded strength members for anti buckling property. The cables can also be offered with steel wire as embedded strength member to provide higher tensile strength.

Product Application

These cables can be used for outdoor applications in ducts or aerial drop for access and distribution for campus/ between and within buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Steel tape adds to crush resistance as well as can be used as a cable locator after installation
- · Cables are rodent protected
- · Easily removable rugged 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. LOOSE TUBE WITH FIBRES & GEL
- 2. WATER SWELLABLE TAPE
- 3. STEEL TAPE ARMOR
- 4. RIPCORD(S)
- 5. EMBEDDED STRENGTH MEMBER
- 6. OUTER SHEATH





Rodent Protection Water Blocked

UV Protected

Anatolia Telecom Cabling Systems



Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR Certification for LSZH sheath, RoHS

Specifications

| | | Physical Characteristics | S | | | | |
|----------------------------|---|--|--|------|--|--|--|
| Fibre Count | | 2-12 | | 24 | | | |
| Nominal Cable Diameter (r | nm) ± 0.5mm | 7.5 | | 9.0 | | | |
| Nominal Cable Weight (kg/ | 'km) ± 10% | 60 | | 70 | | | |
| | Mechanical and Environmental Characteristics* | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1000 1000 | | | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 20D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 1000 | | 1000 | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°C to +70°C | | | | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water hea | 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 | | | | | | | |
|------------------------------|----------------|-----------------------|---------|---------|--------------------|------------------|--|
| | Attenuation co | efficient, dB/km (Ave | PMD, | PMD LDV | Cut-off Wavelength | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | (lcc), nm 1310nm | |
| G652D | ≤ 0,4 | ≤ 0,3 | ≤ 0 ,20 | ≤ 0,10 | ≤ 1260 | | |

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



Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 2km, 4km Note - Customised drum lengths available on request.

Sheath printing details

ARMOR-Unitube Single Jacket Steel Wire Armored

2d0024:BL024:W-WRS-

Product Details

Anatolia ARMOR Unitube Single Jacket Steel Wire Armored Cables is a multipurpose cable design that provides the reliability required in harsh environments. This is a central tube Cable using optical fibres presented in tube filled with a thixotropic gel to protect from water ingress. Core is sheathed with inner jacket and Steel wire armor surrounds the inner sheath with outer jacket placed over the armor layer making the cable robust and installation friendly. For potentially hazardous applications Low Smoke Zero Halogen is recommended.

Product Application

These cables are typically used in heavy construction zones including heavy traffic area, wind farm developments, pipelines, oil and gas fields, heavy industrial sites and a variety of additional harsh environments. This cable is suitable for direct buried and other hazardous applications.

• Heavy construction and hazardous applications like Oil and Gas fields.

• Voice, data, broadband and CATV transmission in Long Distance and Backbone Networks with direct burial, duct, marsh and river crossing installation methods.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Very high Crush and Impact resistant cable, suitable for harsh installation environment
- Wire armouring has excellent mechanical performance with high tensile properties
- Water blocking compounds outside the tubes and gel inside the tubes create water protection in the tubes and core
- · Steel armouring provides rodent resistant
- · Tensile and crush resistant
- · UV protected
- Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



- 1. LOOSE TUBE WITH FIBRES & GEL
- 2. WATER SWELLABLE PERIPHERAL STRENGTH YARNS
- 3. INNER SHEATH
- 4. STEEL WIRE ARMORING
- 5. RIPCORD(S)
- 6. OUTER SHEATH









Rodent Protection Water Blocked

cked UV Protected

High Crush

46



Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, CPR certification for LSZH sheath

Specifications

| Physical Characteristics | | | | | | | |
|----------------------------|---|------------------------------|-------------------------------|-------------------------|--|--|--|
| Fibre Count | | 4-8 | | 12-24 | | | |
| Nominal Cable Diameter (r | nm) ± 0.5mm | 10.0 | | 11.5 | | | |
| Nominal Cable Weight (kg/ | ′km) ± 10% | 200 | | 244 | | | |
| | Mechanical and Environmental Characteristics* | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 3500 | | 3500 | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 15D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 4000 | | 4000 | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 50 | | | | |
| 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: -10°C to +60°C | Operation: -20°C to +70°C | Storage: -30°C to +70°C | | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water hea | ad, 3m samples, 24 hrs no wat | er 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | |
|--|---------------|-----------------|-----------------|---------|---------|------------------------------|--|--|
| Attenuation coefficient, dB/km (Average/Maximum) | | | | PMD, | PMD LDV | Cut-off Wavelength (lcc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1550nm 1625nm | | ps/√km | 1310nm | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | | |
| G657A1 fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,15 | ≤ 1260 | | |

** This fibre is also available as a bend insensitive

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



Packing and Lengths

Packing: Wooden drums

Lengths (tolerance ±5%): 2km

Note - Customised drum lengths available on request.

Sheath printing details

DROP Cable Unitube Mini ADSS

2d0024:AL024:W---S-

Product Details

Anatolia DROP Unitube Mini ADSS Fibre Optic Cable is a unitube cable, which is intended for use in drop installations. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

Product Application

These cables can be used for outdoor applications in access network or as access cable from outdoor to indoor in customer premises network. It can be used as access building cable in premises distribution system, especially used in outdoor aerial access cabling.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- · Optimum solution for last mile application
- · Good mechanical and environmental characteristics
- High strength loose tube that is hydrolysis resistant
- · Aramid yarn strength member ensure tensile strength
- · Tensile and crush resistant
- · UV protected
- · Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable

- 1. LOOSE TUBE WITH FIBRES & GEL 2. PERIPHERAL STRENGTH YARNS
- 3. RIPCORD(S)
- 4. EMBEDDED STRENGTH MEMBER
 - 5. OUTER SHEATH











Aerial Drop

Totally Dielectric Water Blocked

Protected

Anatolia Telecom Cabling Systems



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

Specifications

| Physical Characteristics | | | | | | | |
|---|--------------------|------------------------------|--------------------|---------------|-------------------------|--|--|
| Fibre Count | | 2-12 | | 24 | | | |
| Nominal Cable Diameter (n | nm) ± 0.5mm | 4.8 | | | 5.8 | | |
| Nominal Cable Weight (kg/ | ′km) ± 10% | 22 | | | 25 | | |
| Mechanical and Environmental Characteristics* | | | | | | | |
| Test | Standard / Notes | | Product Perform | mance | | | |
| NESC Conditions/Span | | (Wind Spee | ed 65Km/Hr, Ice L | Loading 0m | nm)/50 m | | |
| Maximum Operating Tension (Long Term) | | 150N | | | | | |
| Maximum Allowable Tension (Short term) | | 500N | | | | | |
| Installation Sag % | | | 1.5% | | | | |
| Bending Radius | IEC-60794-1-21-E11 | | Dynamic = 15D, St | tatic = 10D | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 1000 | | | 1000 | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | 10 | | | | | |
| 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: -10°C to +60°C | Operation: -20°C | C to +70°C | Storage: -30°C to +70°C | | |
| Water Penetration | IEC-60794-1-22-F5B | 1m water he | ad, 3m samples, 24 | 4 hrs no wate | er 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | |
|--|---------------|---------------------|-----------------|---------|----------|--------------------|--|--|
| Attenuation coefficient, dB/km (Average/Maximum) | | | | | PMD LDV, | Cut-off Wavelength | | |
| Fibre Type | 1310nm | 310nm 1550nm 1625nm | | ps/√km | ps/√km | (lcc), nm 1310nm | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,08 | ≤ 1260 | | |
| G657A1 fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,08 | ≤ 1260 | | |

** This fibre is also available as a bend insensitive

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



Packing and Lengths

Packing: Wooden drums with protection Lengths (tolerance ±5%): 4 km Note - Customised drum lengths available on request.

Sheath printing details

DROP Easy Strip Fig 8 Flat

a10002:8T002:-F--SE

Product Details

Anatolia Drop Easy Strip Fig 8 Flat Cable is an enhanced performance FTTH solution, constructed with one/two single mode /bend sensitive fibres (ITU-T G657A1) protected by two strength members and a messenger wire on the top for aerial drop applications and a final LSZH jacket. This Cable is very light and easy to install and strip. Industry standard connectors can be used for direct Termination because of standard 250µm fibre size. Coloured fibre is for easy identification.

Product Application

These cables can be used for indoor/outdoor aerial applications and FTTX/FTTH applications between the apartment's central communication room and the apartment/office point.

Features & Benefits

- Available in 1 or 2 fibre count in either single-mode or multi-mode optical fibres
- Special low bend sensitivity fibre provides high bandwidth and excellent communication transmission property
- Two parallel strength members ensure good performance of crush resistance to protect the fibre
- Simple structure, light weight and high practicability
- More bandwidth, reliability and low cost
- Novel flute design, easily strip and splice, simplify the installation and maintenance
- · Low smoke, zero halogen and flame retardant sheath
- Industry standard connectors can be used for direct Termination
- · UV protected
- Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



- **1. SUPPORTING STRENGTH MEMBER**
- 2. COLORED FIBRES
- 3. EMBEDDED STRENGTH MEMBERS
- 4. OUTER SHEATH

Aerial Drop



Water Blocked

UV Protected

Anatolia Telecom Cabling Systems

sales@anatoliacom.com



Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T Recommendations, GR-409

Specifications

| | | Physical Characteristics | | | | |
|---|--------------------|------------------------------|---------------------------|-------------------------|--|--|
| Fibre Count | | 1-2 | | | | |
| Nominal Cable Diameter (m | nm) ± 0.5mm | | 5.4 X 2.0 | | | |
| Nominal Cable Weight (kg/ł | (m) ± 10% | | 20 | | | |
| | Mechanica | l and Environmental Cl | haracteristics | | | |
| Test | Standard / Notes | Notes Product Performance | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 400 | | | | |
| Bending Radius | IEC-60794-1-21-E11 | Dynamic = 15D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 1000 | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 4 | | | |
| Torsion | IEC-60794-1-21-E7 | | ± 180° | | | |
| Drip Test | IEC-60794-1-21-E14 | 4 30 cm, 70°C, 24 hr | | | | |
| Temperature Cycling | IEC-60794-1-22-F1 | Installation: -10°C to +60°C | Operation: -20°C to +70°C | Storage: -30°C to +70°C | | |
| Water Penetration IEC-60794-1-22-F5B 1m water head, 3m samples, 24 hrs no water leakage | | | | iter 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | |
|------------------------------|-------------|--------------------|-------------------|---------|---------|------------------------------|--|--|
| | Attenuation | coefficient, dB/km | (Average/Maximum) | PMD, | PMD LDV | Cut-off Wavelength (lcc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | | |
| G657A1 fibre | ≤ 0,4 | < 0,3 | < 0,4 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | | |

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

1 2 Blue Orange

Packing and Lengths

Packing: Plastic drums Lengths (tolerance ±5%): 500, 1000 Mtrs Note - Customised drum lengths available on request.

Sheath printing details

DROP Flat Drop **Dielectric/Toneable**

2d0012:RL012:W-WRS-

Product Details

Anatolia DROP Flat Drop Dielectric/Toneable Fibre Optic Cable offers the ease of installation in an easy-access, single-tube design. This is a central Tube Cable using optical fibres presented in tube filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. The cables have two embedded strength members for anti buckling property. The dielectric version eliminates any bonding and grounding requirements. Toneable version adds a 24 AWG conductor that provides underground location tracing, attached by a web for easy tear-away separation from the cable - the most popular option for underground and multipurpose installation.

Product Application

This cable is well suitable for self-supporting aerial, duct, buried applications and as outdoor cable for all OSP drop cable applications. The dielectric version eliminates any bonding and grounding requirements. The cables offer exceptional crush resistance. UT Flat Drop provides easy FTTx (Fibre-To-The-X) installation and termination using existing hardware and methods for drops to homes and businesses. Its flat profile is compatible with economical wedge clamps for self-support aerial spans up to 90 meters, depending on environmental loading

Typical Construction of Cable



- 1. COPPER TONING WIRE
- 2. NECK
- 3. LOOSE TUBE WITH FIBRES & GEL
- 4. RIPCORD(S)
- 5. EMBEDDED STRENGTH MEMBER
- 6. OUTER SHEATH



Features & Benefits

- Available up to 12 fibre count in either single-mode or multi-mode optical fibres
- · Embedded strength members for anti-buckling properties
- · Longitudinal water protection is enabled by water blocking compounds in tube
- Easy access to fibre due to its unitube construction
- · Available with steel wire as embedded strength member for higher tensile strengths
- · Toning wire enables underground location
- · Industry standard connectors can be used for direct termination
- · Tensile and crush resistant
- · UV protected
- · Tightly controlled physical parameters
- · Combination of fibre types available on request



Water Blocked

Aerial Drop



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

Specifications

| | | Physical Characteristic | S | | | |
|---|--------------------------------------|--|----------------------------|------------------|--|--|
| Fibre Count | | Up to 12 (Dielect | ric) Up | to 12 (Toneable) | | |
| Nominal Cable Diameter (n | nm) ± 0.5mm | 4.4 * 8.2 | | 4.4 * 10.2 | | |
| Nominal Cable Weight (kg/ | ′km) ± 10% | 35 | | 55 | | |
| Mechanical and Environmental Characteristics* | | | | | | |
| Test | Standard / Notes Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1300 1300 | | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 15D, Static = 10D | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 2500 | | 2500 | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | |
|--|---------------|-----------------|-----------------|---------|---------|------------------------------|--|--|
| Attenuation coefficient, dB/km (Average/Maximum) | | | | PMD, | PMD LDV | Cut-off Wavelength (lcc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | | |
| G652D fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,10 | ≤ 1260 | | |
| G657A1 fibre | ≤ 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)



Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 2km Note - Customised drum lengths available on request.

Sheath printing details

/NNTOLIN

DROP Unitube Single Jacket Embedded Strength Member

2d0024:RL024:W---SE

Product Details

Anatolia DROP Unitube Single Jacket Embedded strength member Cables are multipurpose cables designed for diverse needs for CATV applications. This is a central tube cable using optical fibres presented in tube filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. The cables have embedded strength members for anti-buckling property and can be either FRP or Steel wire as per the requirement.

Product Application

These cables can be used for outdoor applications in ducts or aerial drop for access and distribution for campus/ between buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- · Easily removable rugged 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. LOOSE TUBE WITH FIBRES & GEL 2. EMBEDDED STRENGTH MEMBER 3. OUTER SHEATH
- 3. OUTER SHEATH







Aerial Drop Totally D

Totally Dielectric

Water Blocked UV Protected

54



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

Specifications

| Physical Characteristics | | | | | | | |
|---|--------------------|--|----------------------------|-----|--|--|--|
| Fibre Count | | 2-12 | | 24 | | | |
| Nominal Cable Diameter | mm) ± 0.5mm | 6.0 | | 7.0 | | | |
| Nominal Cable Weight (kg | J/km) ± 10% | 30 | | 35 | | | |
| Mechanical and Environmental Characteristics* | | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 350 | | | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 20D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 1000 | | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 10 | | | | |
| 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: -10°C to +50°C Operation: -20°C to +70°C Storage: -30°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.

| Transmission Characteristics | | | | | | | | |
|--|---------------|-----------------|-----------------|---------|----------|------------------------------|--|--|
| Attenuation coefficient, dB/km (Average/Maximum) | | | | | PMD LDV, | Cut-off Wavelength (lcc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0.10 | ≤ 1260 | | |
| G657A1 fibre | ≤ 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 (Sterlite Tech's NOVA fibre)

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 |

Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 2km, 4km Note - Customised drum lengths available on request.

Sheath printing details

/NNTOLIN

DROP Unitube Single **Jacket Dielectric Armored**

2d0024:RL024:W-GRSE

Product Details

Anatolia DROP Unitube Single Jacket Dielectric Armored Fibre Optic Cable is central tube cable using optical fibres presented in loose tube and surrounded by glass roving yarn armor. To protect the Optical fibres from water ingress, the tube is filled with a thixotropic gel, and is enclosed in a thermoplastic sheath. For potentially hazardous applications Low Smoke Zero Halogen is recommended.

Product Application

These cables can be used for outdoor applications in ducts or direct buried or aerial drop for access and distribution for campus/ between and within buildings. These cables can be installed in ducts with either pulling or blowing techniques and in aerial applications with traditional lashing methods.

Features & Benefits

- Available up to 24 fibre count in either single-mode or multi-mode optical fibres
- · Cables are rodent resistant
- · Easily removable rugged 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. LOOSE TUBE WITH FIBRES & GEL
- 2. WATER SWELLABLE TAPE
- 3. CORE WRAPPING WITH PERIPHERAL STRENGTH YARNS(If required)
- 4. RIPCORD(S)
- 5. OUTER SHEATH





Aerial Drop Totally Dielectric

Anatolia Telecom Cabling Systems

56



Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T recommendations CPR Certification for LSZH sheath

Specifications

| | | Physical Characteristic | S | | | | |
|---|--------------------|--|----------------------------|-------------------------|--|--|--|
| Fibre Count | | 2-12 | | 24 | | | |
| Nominal Cable Diameter (r | nm) ± 0.5mm | 7.4 | | 8.4 | | | |
| Nominal Cable Weight (kg/ | ′km) ± 10% | 45 | | 60 | | | |
| Mechanical and Environmental Characteristics* | | | | | | | |
| Test | Standard / Notes | Standard / Notes Product Performance | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1000 | | 1000 | | | |
| Bending Radius | IEC-60794-1-21-E11 | D | ynamic = 15D, Static = 10D | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 1000 | | 1000 | | | |
| 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: -10°C to +60°C | Operation: -20°C to +70°C | Storage: -30°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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | |
|--|---------------|-----------------|-----------------|---------|---------|------------------------------|--|--|
| Attenuation coefficient, dB/km (Average/Maximum) | | | | PMD, | PMD LDV | Cut-off Wavelength (Icc), nm | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | ps/√km | 1310nm | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | | |
| G657A1 fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1450 | | |

** This fibre is also available as a bend insensitive

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



Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 19 km Note - Customised drum lengths available on request.

-

Sheath printing details

DROP Unitube Single Jacket Miniature

2d0024:RL024:W---S-

Product Details

Anatolia DROP Unitube Single Jacket Miniature Fibre Optic Cable is used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings. This cable consists of colour coded optical fibres placed in a central tube along with gel to protect from water ingress and is surrounded with aramid yarns which provides tensile to the core. Thermoplastic sheath placed over the dielectric armor layer makes the cable user friendly.

Product Application

These cables can be used for outdoor applications in cable trays or ducts or aerial drop for access inside campus and within buildings.

Features & Benefits

- Available upto 24 fibre count in either single-mode or multi-mode optical fibres
- Unitube design allows minimised weight and eases cable installation
- Small size, fast cable termination and easy cable management
- Optimum solution for last mile application
- · Easily removable rugged jacket
- Longitudinal water protection is enabled by water blocking compounds in tube
- · UV protected
- · Tightly controlled physical parameters
- · Combination of fibre types available on request

Typical Construction of Cable



- 1. LOOSE TUBE WITH FIBRES & GEL
- 2. PERIPHERAL STRENGTH YARNS
- 3. OUTER SHEATH





High Flexibility

Totally Dielectric Water Blocked

UV Protected



Cable complies to the following main Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, ITU-T recommendations, CPR for LSZH sheath

Specifications

| Physical Characteristics | | | | | | | | |
|---|--------------------|---|-----|--|--|--|--|--|
| Fibre Count | | 2~12 | 24 | | | | | |
| Nominal Cable Diameter (n | nm) ± 0.3mm | 3.8 | 4.2 | | | | | |
| Nominal Cable Weight (kg/ | km) ± 10% | 15 | 18 | | | | | |
| Mechanical and Environmental Characteristics* | | | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 100 | | | | | | |
| Bending Radius | IEC-60794-1-21-E11 | Dynamic = 15D, Static = 10D | | | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | | 200 | | | | | |
| Impact strength (N.m) | IEC-60794-1-21-E4 | | 5 | | | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | | |
|------------------------------|-------------------|-----------------------|-----------------|---------|----------|--------------------|--|--|--|
| | Attenuation co | efficient, dB/km (Ave | rage/Maximum) | PMD, | PMD LDV, | Cut-off Wavelength | | | |
| Fibre Type | 1310nm 1550nm 162 | | 1625nm | ps/√km | ps/√km | (lcc), nm 1310nm | | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,1 | ≤ 1260 | | | |
| G657A1 fibre | ≤ 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)



Packing and Lengths

Packing: Plastic spool/drums

Lengths (tolerance ±5%): 4 km, 6 Km

Note - Customised drum lengths available on request.

Sheath printing details

/NNTOLIN

Simplex Armored

2d0002:BT002:--TRSE

Product Details

Anatolia Simplex armored Cable contains two simplex units protected in a corrugated steel tape armored and overall jacket of Polyethylene. For indoor/ outdoor application Low Smoke Zero Halogen sheath is recommended Simplex, duplex indoor armored cable is composed of flexible tube, Kevlar strengthening member and outer jacket. With excellent mechanical performance of tensile strength and crush resistance, the cable is the ideal choice of cabling, processing patch cord, LAN and other communication applications.

Product Application

Cable is fit to use in Fibre to the Antenna (FTTA) application which can withstand adverse weather condition.

- 1. Fibre to the Home solution
- 2. Process to armored patch cord
- 3. Cabling on wall, ceil, tube
- 4. Cabling on outer wall, between building

Features & Benefits

- Available in 1 or 2 fibre count
- Cables are rodent protected
- · Easily removable rugged jacket.
- Flexible, light weight, easy to handle & install.
- Good Tensile and crush resistant.
- UV protected.
- · Combination of fibre types available on request

Typical Construction of Cable



- 1. TIGHT BUFFER WITH FIBRE
- 2. PERIPHERAL STRENGTH MEMBER (ARAMID YARNS)
- 3. CORRUGATED STEEL TAPE
- 4. RIPCORD
- 5. OUTER SHEATH







Cable complies to the following International Standards IEC.60794 series, ANSI/ICEA S-87-640, Telcordia GR-20, GR 409, ITU-T Recommendations

Specifications

| Physical Characteristics | | | | | | | | |
|---|--------------------|---|-----------------------------|--|--|--|--|--|
| Fibre Count 2 | | | | | | | | |
| Nominal Diameter (mm) ± 0.5r | nm | 8.5 | | | | | | |
| Nominal Weight (kg/km) ± 10% 45 | | | | | | | | |
| Mechanical and Environmental Characteristics* | | | | | | | | |
| Test | Standard / Notes | Product Performance | | | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 1000 | | | | | | |
| Bending Radius | IEC-60794-1-21-E11 | | Dynamic = 15D, Static = 10D | | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 1000 | | | | | | |
| 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: -10°C to +60°C Operation: -20°C to +70°C Storage: -30°C to +7 | | | | | | |
| 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 \leq 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.657A1. Refer to specific data sheets for details.

| Transmission Characteristics | | | | | | | | | |
|------------------------------|----------------|-----------------------|-----------------|---------|-------------------|--|--|--|--|
| | Attenuation co | efficient, dB/km (Ave | rage/Maximum) | PMD, | PMD LDV ps/√km | Cut-off Wavelength (Icc), nm 1310nm | | | |
| Fibre Type | 1310nm | 1550nm | 1625nm | ps/√km | | | | | |
| G652D** fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,08 | ≤ 1260 | | | |
| G657A1 fibre | ≤ 0,35 / 0,36 | ≤ 0,22 / ≤ 0,23 | ≤ 0,24 / ≤ 0,26 | ≤ 0 ,20 | ≤ 0,08 | ≤ 1260 | | | |

** This fibre is also available as a bend insensitive

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



Packing and Lengths

Packing: Wooden drums Lengths (tolerance ±5%): 2km Note - Customised drum lengths available on request.

Sheath printing details

ANNTOLIN

Double Jacket Tight Buffer

a10001:DT001:-F--DE

Product Details

Anatolia Double Jacket Tight Buffer Fibre Optic Cable is an integral part of the end-to-end fibre optic solution, designed to support enhanced data needs along with future advancing network requirements. Cable contains a single fibre, tight-buffered (coated with a 900 micron buffer over the primary buffer coating) with Kevlar (aramid fibre) strength members and LSZH Inner jacket with Kevlar and Outer LSZH Jacket for indoor/outdoor use.

Product Application

Simplex Cables are used mostly for patch cord and backplane applications. Cable is suitable for use in indoor / outdoor FTTH application in duct, horizontal or riser application. Ideal for applications involving safety requirements iin case of fire.

Features & Benefits

- 900 Microns Tight buffered fibres supports fast field installations
- Easy jacket removal using standard tools
- Small & flexible makes it ideal for confined spaces
- Patch panels & work station equipment connections
- · Horizontal & riser distribution in open office environment
- Variant available in terms of color & fibre type
- Building interconnection (Campus LAN)
- Links between electronic equipment & fibre patch panel
- Double jackets provides increased tensile strength, mechanical and ultraviolet protection

Typical Construction of Cable



- 1. COLOURED TIGHT BUFFERED FIBRES
- 2. INNER SHEATH
- 3. PHERIPHERAL STRENGTH MEMBERS- ARAMID YARNS
- 4. OUTER SHEATH





Performance Standards

Cable complies to the following Standards IEC.60794 series, ANSI/ICEA S-87-640, Telecordia GR-20, ITU-T Recommendations, GR-409, IEC 60332-1, IEC 60332-3-22/24 Flame Standards, CPR certification for LSZH sheath

Specifications

| | | Physical Characteristics | | | | |
|-------------------------------|--------------------|---|--|--|--|--|
| Fibre Count | | Simplex | | | | |
| Nominal Diameter (mm) ± 0.2mm | | 4.6 | | | | |
| Nominal Weight (kg/km) ± 10% | | 20 | | | | |
| | Mechanical | and Environmental Characteristics | | | | |
| Test | Standard / Notes | Product Performance | | | | |
| Max. Tensile Strength (N) | IEC-60794-1-21-E1 | 800 | | | | |
| Bending Radius | IEC-60794-1-21-E11 | Dynamic = 10D, Static = 15D (D = Cable diameter) | | | | |
| Crush Resistance (N/100mm) | IEC-60794-1-21-E3 | 500 | | | | |
| Temperature Cycling | IEC-60794-1-22-F1 | Installation: -0°C to +60°C Operation: -20°C to +70°C Storage: -20°C to +70°C | | | | |

** After the test, the change in attenuation shall be \leq 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.657A1, ITU T 651 OM1, OM2, OM3& OM4. Refer to specific data sheets for details

| Attenuation Co-efficient, dB/km(Maximum) | | | | | | | | |
|--|-------|--------|--------|--------|--|--|--|--|
| Fibre Type | 850nm | 1300nm | 1310nm | 1550nm | | | | |
| G657A1 | - | - | < 0,40 | < 0,30 | | | | |
| OM1 | ≤ 3.5 | ≤ 1.5 | - | - | | | | |
| OM2 | ≤ 3.5 | ≤ 1.5 | - | - | | | | |
| OM3 | ≤ 3.5 | ≤ 1.5 | - | - | | | | |
| OM4 | ≤ 3.5 | ≤ 1.5 | - | - | | | | |

Fibre Standard Colour Code

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

Fibre Colour – Natural / Transparent Jacket Colour Code

Inner Jacket – White Outer Jacket - Black

Packing and Lengths

Packing: Wooden Reels Lengths (tolerance ±5%): 500, 1000, 2000 meters Note - Customised drum lengths available on request.

Sheath printing details