

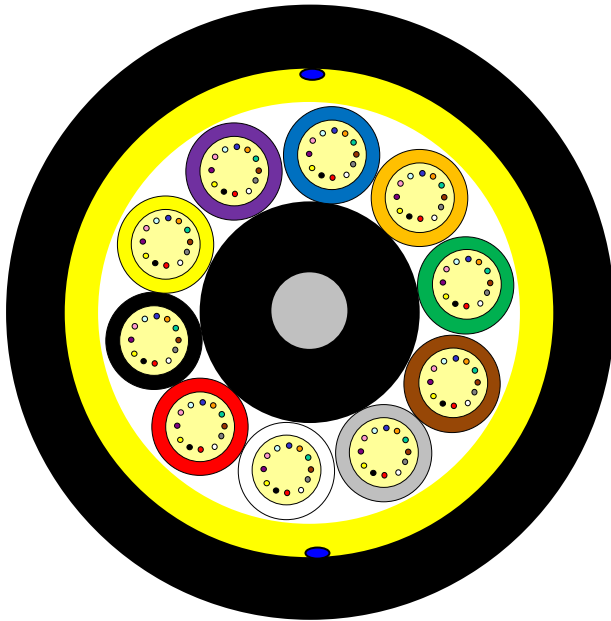
All-Dielectric, Self Supporting (ADSS) Aerial Loose Tube Fiber Optic Cable

Dry core design

PowerGuide® SkyLight



Issue May 2021
according to **OFS Generic Specification**



Application

Optimized for Aerial- and Duct Installation with fiber counts up to 120 fibers

Design

- Optical fibers
- Gel-filled buffer tubes
- Non-metallic central member
- Water blocking threads
- Non-metallic aramid strength elements
- Ripcords
- Outer HDPE-jacket

Benefits

- Excellent, cost- effective option for short aerial cable spans
- Outstanding optical performance, durability and field reliability
- Fast, one-step installation for valuable time and cost savings
- Small cable diameter and bend radius for easy deployment in aerial- to- underground installation
- Easily strippable sheath for quick, convenient cable preparation

Version illustrated is the 120 Fiber 10 Element Cable

Fiber Count	Tubes	Core Design	Outer Diameter [mm]	Cable Weight [kg/km]	AT-Code**
108	9 (12F)	1+10 (1 Filler*)	13.4	145	AT-[][][]17UT-108-CNGA
120	10 (12F)	1+10	13.4	145	AT-[][][]17UT-120-CNGA

This table shows nominal diameter and weight values which may differ in shipments.

*Fillers are natural colored **Please refer to the OFS AT- Code. The blanks specify the fiber type.

Identification

Tube and Fiber Color Code :

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

Alternative tube and fiber color code available on request

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Sheath Marking:

OFS OPTICAL ADSS CABLE [ID] [MM/YYYY] [Handset Sign] xxxF [Meter Marking]

Alternative sheath printing available on request.

In case of order the exact sheath printing text will be clarified with the customer.

Shipping Information

Cable Length	Drum Dimensions (approx.)		Shipping Weight (calc.)	
	Diameter(battened)	Width	Without lagging	With lagging
2 Km	1250 mm	790 mm	370 kg	410 kg
4 Km	1600 mm	1055 mm	710 kg	770 kg
6 Km	1750 mm	1055 mm	1020 kg	1080 kg
8 Km	2050 mm	1100 mm	1340 kg	1420 kg

The shipping information are given for one-way reels. Reusable reels are available on request.

Temperatures

IEC 60794-1-22-F1	Operation	-40°C to +70°C
	Installation	-15°C to +60°C
	Storage/Shipping	-40°C to +70°C

Sag and Tension Calculation

AT-[][]17UT-xxx-CNGA

NESC Light Loading Conditions

Ice Thickness	0 mm
Wind Pressure	431 N/m ² (95.5 km/h)
Low Temperature	- 1 °C
Safety Factor	0.73 N/m

Tension @ Maximum Span for 1,0 % Installation Sag

MRCL (Maximum Rated Cable Load)	2770 N
MIT (Maximum Installation Tension)	810 N

Maximum Span	70 m
Cable Weight	145 kg/km
Cable Diameter	13.4 mm
Installation Temperature	23 °C
Cable Modulus	764.5 kg/mm ²
CTE (C ⁻¹)	1.71E- 05

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Recommended hardware for spans up to 70m

Dead End Assembly:

TELENCO® ACADSS anchoring clamp
Model ACADSS 12 (PN 0319)

Vibration Dampers:

TELENCO® Anti-vibration damper
Model VIB117 (PN 09140)

Suspension Support:

TELENCO® J-hook suspension
Model JHC10-15 (PN 0438), Model JHC12 (PN 09731), Model
JT12 (PN 09793), Model JTP (PN 90583) + F12-15 (PN 90920)
TELENCO® Dielectric suspension
Model DS12 (PN 09173)

Pertinent installation information

Maximum rated cable load (MRCL)	2.7 kN
Bending Performance: (IEC 60794-1-21-E11)	
Handling fixed installed - No attenuation increase*	Bend radius: 120 mm
During installation (under Load) - No changes in attenuation before versus after load	Bend radius: 240 mm

*No changes in attenuation means that any changes in measurement value, either positive or negative within the uncertainty of measurement shall be ignored. The total uncertainty of measurement shall be less than or equal to 0.05 dB.

When to use hardware

Dead End Assembly

- Used whenever a cable should not slip
 - Cable start and end points
 - Where line angles exceed 20°
 - Road, river, railroad crossings
 - Closure locations
- Different types available dependent upon cable design and application



Tangent and Suspension Supports

- Typically used in small line angle (<20°, depending on type) situations
- Provides vertical support, not designed to support cable tension
- Multiple types depending span length and application
- Allows cable slippage during imbalanced load situations



Vibration Dampers

- ADSS cables can experience Aeolian vibration under certain circumstances
- Circumstances conducive to Aeolian vibration
- Laminar wind flow, Wide open spaces, Light winds, High tensions
- Vibration dampers minimize the effects of this vibration



Installation document references

IP 014 PowerGuide® Installation

IP 014A PowerGuide® ADSS CABLE Installation Guideline Distribution Line Applications

IP 006 PowerGuide® Sheath Removal

IP 017 PowerGuide® Hardware Installation

AN-101 Maximum Rated Cable Loads & Minimum Bending Diameter

AN-203 Space Potential Calculation for PowerGuide® ADSS Cable

Installation documents available upon request.

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PowerGuide SkyLight Cable Ordering Information

Example: AT-3BE17UT-NNN¹-CNGA

Fiber ² Sheath Core Fiber Count Custom ³		
Part Number: AT-S1 S2 SF S3 S4 S5 S6 - NNN - CNGA		
<p>S1= Fiber Selection</p> <p>3= 1310/1550 nm (AllWave® ZWP Fiber) 1310/1550 nm (AllWave® + ZWP Fiber)</p> <p>5= 1310/1550 nm (AllWave® FLEX ZWP Fiber)</p> <p>7= 1310/1550 nm (AllWave® FLEX + ZWP Fiber)</p>	<p>S2= Fiber Transmission Performance</p> <p>B= 0.35/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm (AllWave® ZWP Fiber)</p> <p>E= 0.36/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm (AllWave® FLEX ZWP Fiber) (AllWave® FLEX + ZWP Fiber)</p> <p>C= 0.35/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm (AllWave® + ZWP Fiber)</p>	<p>SF= Fiber Type</p> <p>E= AllWave® ZWP Single Mode</p> <p>S3= Sheath Construction</p> <p>1= All-Dielectric single jacket</p> <p>S4= Tensile Load</p> <p>7= ADSS</p>
<p>S5= Core Type</p> <p>U= Dry Core Loose Tube</p>	<p>S6= Fibers per Tube</p> <p>6= 6 Fibers 8= 8 Fibers N= 10 Fibers T= 12 Fibers</p>	<p>NNN= Fiber Count</p>

¹ Part Number shown is for PowerGuide ADSS Cable with 250 µm Single Mode AllWave ZWP Fibers with maximum attenuation: 0.35/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm .

² Contact OFS sales representative for information on other cable variations, including additional fiber types, composite cables and attenuation.

³ Consult with us regarding your application, span lengths and loading conditions to complete the custom design and part number of your complete sheath strengths system.

The information is believed to be accurate at time of issue.
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