

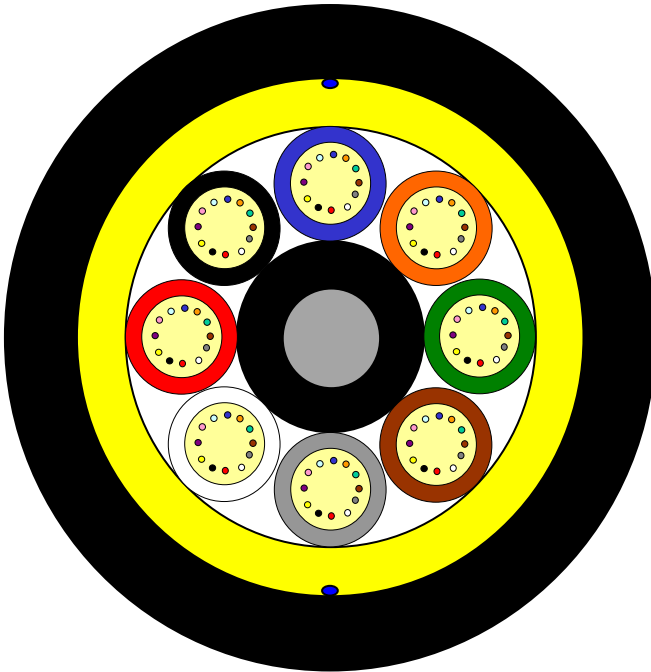
# All-Dielectric, Self Supporting (ADSS) Aerial Loose Tube Fiber Optic Cable

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 96 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 96 Fibre 8 Element Cable**

Fiber Count	Tubes	Core Design	Outer Diameter [mm]	Cable Weight [kg/km]	AT-Code**
84	7 (12F)	1+8 (1 Filler*)	11.9	120	AT-[ ][ ][ ]17UT-084-CMEA
96	8 (12F)	1+8	11.9	120	AT-[ ][ ][ ]17UT-096-CMEA

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	1050 mm	790 mm	300 kg	320 kg
4 Km	1450 mm	790 mm	590 kg	630 kg
6 Km	1600 mm	1055 mm	850 kg	910 kg
8 Km	1750 mm	1055 mm	1110 kg	1170 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-CMEA

### NESC Light Loading Conditions

Ice Thickness	0 mm
Wind Pressure	431 N/m <sup>2</sup> (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) 2340 N

MIT (Maximum Installation Tension) 660 N

Maximum Span	70 m
Cable Weight	120 kg/km
Cable Diameter	11.9 mm
Installation Temperature	23 °C
Cable Modulus	798.2 kg/mm <sup>2</sup>
CTE (C <sup>-1</sup> )	1.67E- 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 JHC8 (PN 09730), Model JT8  
(PN 09792), Model JTP (PN 90583) + F8-12 (PN 90919)  
TELENCO® Dielectric suspension  
Model DS8 (PN 09215)

### Pertinent installation information

<b>Maximum rated cable load (MRCL)</b>	<b>2.3 kN</b>
<b>Bending Performance: (IEC 60794-1-21-E11)</b>	
<b>Handling fixed installed</b>	<b>- No attenuation increase*      Bend radius: 120 mm</b>
<b>During installation (under Load)</b>	<b>- No changes in attenuation before versus after load      Bend radius: 240 mm</b>

\*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-NNN<sup>1</sup>-CMEA

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

<sup>1</sup> 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 .  
<sup>2</sup> Contact OFS sales representative for information on other cable variations, including additional fiber types, composite cables and attenuation.  
<sup>3</sup> 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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