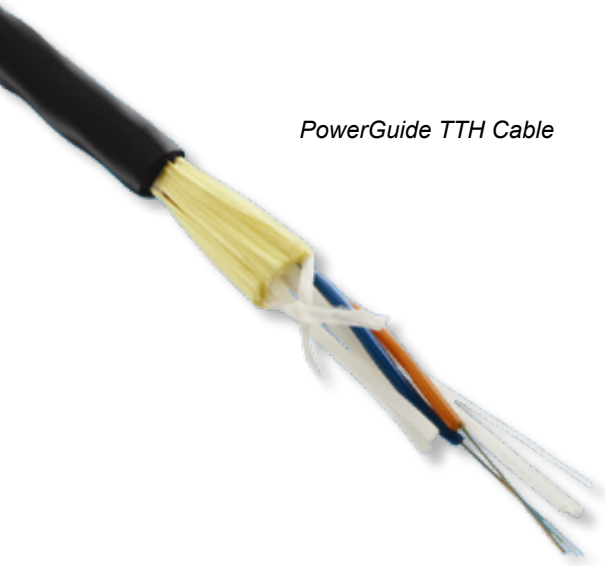




A Furukawa Company

# PowerGuide® TTH (To The Home) Cable

An Ideal, Cost-Effective Solution for FTTH and Short-Span Aerial Applications



PowerGuide TTH Cable

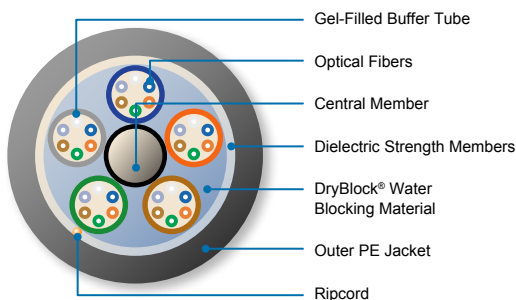
## Features and Benefits

- Excellent, cost-effective alternative for short aerial cable spans and FTTH applications
- Lightweight and easy to handle and install for duct and aerial use
- Single, durable PE jacket for fast and convenient cable preparation
- Fiber counts up to 30
- Small nominal cable diameter and bend radius for easy deployment in aerial-to-underground installations
- All-dielectric construction with a maximum of six fibers per buffer tube
- RDUP (formerly RUS) listed
- Available with OFS application-specific fibers including AllWave® Zero Water Peak (ZWP) and AllWave+ ZWP Single-Mode, TrueWave® RS LWP Single-Mode and Multimode Fibers.

## Product Description

The OFS PowerGuide® TTH All-Dielectric Self-Supporting (ADSS) Loose Tube Fiber Optic Cable offers an excellent choice for short aerial cable spans ranging up to 346 feet (105 meters)\*. This cable's compact size, low-cost installation and specialized design make it an ideal, cost-effective cabling solution for duct, Fiber-to-the-Home (FTTH) and short-span, self-supporting aerial drop applications.

To construct this cable, one to six optical fibers are placed within color-coded, gel-filled buffer tubes to protect the fibers from mechanical and environmental forces. The buffer tubes are then stranded around a dielectric central member using the reverse oscillating lay (ROL) stranding method to enable fast, mid-span cable entry. Next, DryBlock® water-blocking material and dielectric strength elements are applied to the cable core. Finally, a durable polyethylene (PE) outer jacket completes the cable construction.



PowerGuide TTH Cable Cross-Section

## Why the PowerGuide TTH Cable?

When you need a small diameter and cost-effective, yet robust cabling solution for FTTH and short aerial span applications, look to the PowerGuide TTH Cable.

Featuring one of the world's smallest ADSS cable diameters, this cable is compact, lightweight and easy to handle and install, saving time and money on deployment. By eliminating the need for expensive cable shielding or grounding, the PowerGuide TTH Cable's all-dielectric construction saves even more money on installation.

While the PowerGuide TTH Cable is small and flexible, it is also highly durable and reliable. The specialized TTH cable design features integrated aramid yarn strength elements and a rugged PE outer jacket for superior cable strength and stability.

\* Exact span lengths depend on loading conditions, fiber counts and clearance requirements.

## Specifications

Fiber Count:	2-30
Outer Diameter - in. (mm)	0.35 (9.0)
Weight - lb/kft (kgm/km)	40 (60)

## Performance Standard

Tested per Applicable Requirements of ANSI/ICEA S-87-640 and Telcordia GR-20 CORE Issue 4.

## Handling

Minimum Bend Radius, With Load	15 x OD*
Minimum Bend Radius, With No Load	10 x OD*
Minimum Bend Radius, Storage Coils	10 x OD*
Maximum Rated Cable Load (MRCL):	373 lbf (1659 N)
Maximum Long Term Load:	115 lbf (511 N)

**Temperature:** Installation: -22 °F to 140 °F (-30 °C to 60 °C)  
 Operation: -40 °F to 158 °F (-40 °C to 70 °C)  
 Storage: -40 °F to 167 °F (-40 °C to 75 °C)

\* NOTE: OD = Outer Diameter of Cable

## Fiber Type<sup>2</sup>

Single-Mode Fiber	Fiber (S1)	Fiber (S2)	Fiber (SF)	Fiber Standards	Wavelengths (nm)	Typical * Attenuation (dB/km)	Maximum Cable on Reel Attenuation (dB/km)
AllWave® ZWP Fiber	3	B	E	G.652.D	1310/1385/1550	-	0.35/0.31/0.25
AllWave+ ZWP Fiber	3	C	E	G.652.D/G.657.A1	1310/1385/1550	-	0.35/0.31/0.25
AllWave FLEX ZWP Fiber	5	B	E	G.652.D/G.657.A1	1310/1385/1550	-	0.35/0.31/0.25
AllWave Low Loss Fiber	3	A	E	G.652.D	1310/1385/1550	0.33/0.31/0.19	0.34/0.31/0.22
AllWave One Fiber	3	F	E	G.652.D/G.657.A1	1310/1385/1550	0.33/0.31/0.19	0.34/0.31/0.22
TrueWave® RS LWP Fiber	6	2	6	G.655.C&D	1550	0.21	0.25
TeraWave® Fiber	6	2	R	G.654.B	1550	0.19	0.25
TeraWave ULL Fiber	6	9	R	G.654.B	1550	0.18	0.22
Multimode Fiber							
62.5 µm Fiber	R	U	9	OM1 62.5 µm	850/1300	-	3.4/1.0
LaserWave® FLEX 300 Fiber	R	F	2	OM3 50 µm	850/1300	-	2.4/0.7
LaserWave FLEX 550 Fiber	R	H	2	OM4 50 µm	850/1300	-	2.4/0.7

## PowerGuide TTH Loose Tube Cable Ordering Information

Example: AT-3BE17S6-NNN<sup>1</sup> - CMCA Part Number: AT- S1 S2 SF S3 S4 S5 S6 - NNN - CMCA

<b>S1 = Fiber Selection</b> See S1 in Fiber Type table above	<b>S3 = Sheath Construction</b> 1 = Single Jacket All Dielectric	<b>S6 = Fibers per Tube</b> 2 = 2 fibers 4 = 4 fibers 6 = 6 fibers
<b>S2 = Fiber Transmission Performance</b> See S2 in Fiber Type table above	<b>S4 = Tensile Load</b> 7 = PowerGuide	<b>NNN = Fiber Count</b> = 002 – 030
<b>SF = Fiber Type<sup>2</sup></b> See SF in Fiber Type table above	<b>S5 = Core Type</b> S = DryBlock	<b>CMCA = Custom/Special</b> (see footnote 3 below)

<sup>1</sup> Part Number shown is for a Fortex DT. Single Jacket Cable with standard AllWave ZWP attenuation and standard cable print. Maximum AllWave ZWP attenuation: 0.35/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm  
 Standard Print, example for Fortex DT Single Jacket Cable:: OFS OPTICAL CABLE AT-3BE12YT-NNN [MM-YY] (UL) US TYPE OFNR [HANDSET SYMBOL] [NNN] F [SERIAL #]

<sup>2</sup> Contact OFS Order Management for information on other cable variations, including additional fiber types, attenuation, and custom cable print.

<sup>3</sup> Custom/Special (XXXX): Consult with us regarding your application, span lengths, and loading conditions to complete the custom design and part number of your complete sheath strength system.

**NOTE:** For more information regarding typical attenuation as well as attenuation parameters on Link Design Value (LDV) (Maximum end-to-end attenuation over a concatenated span), please see OFS Application Note AN-111 which can be downloaded at [www.ofsoptics.com](http://www.ofsoptics.com) or contact your OFS representative.

For additional information please contact your sales representative.

You can also visit our website at [www.ofsoptics.com](http://www.ofsoptics.com) or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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