

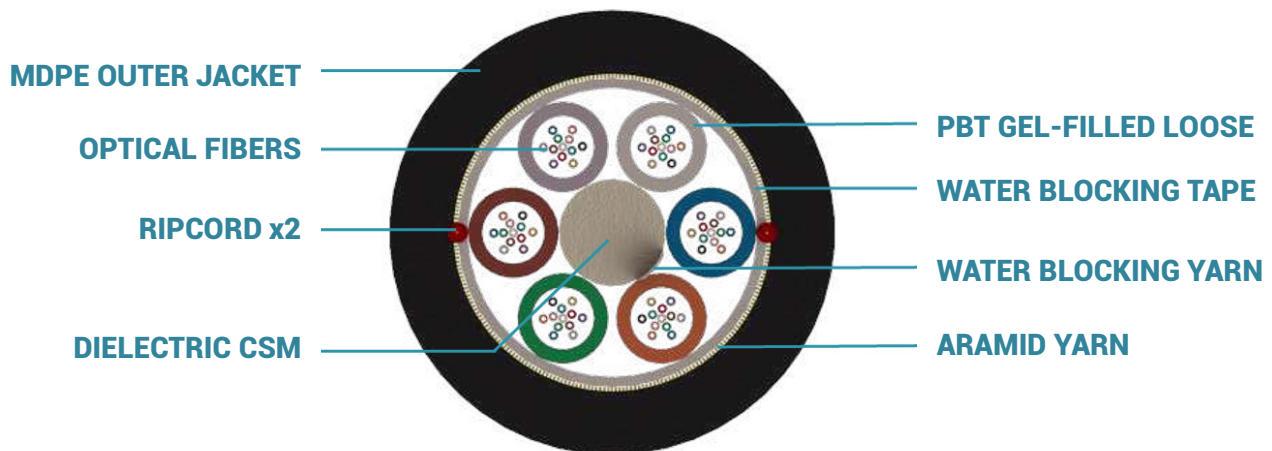
## NT-FOCAS

# Self-Supporting Aerial Outdoor ADSS Optical Fiber Cable

### ADSS structure

- ✓ **Self-supporting**
- ✓ **Non-metallic, PBT Loose Tubes Gel-filled**
- ✓ **For overhead power lines up to 110kV**
- ✓ **MDPE jacket, UV, fungus, abrasion protected, 30 years lifetime**

All-Dielectric Self-Supporting (ADSS) cables are designed for outside plant aerial and duct applications in local and campus network loop architectures. From pole-to-build to town-town installations, the NT-FOCAS cable in collaboration with suspension, dead-end and termination enclosures, offers a comprehensive transmission circuit infra-structure with proven, high-reliability performance. NT-FOCAS includes fiber counts to 144 optical fibers and any type or combination of single-mode and multi-mode fibers within cable. Pole-to-Pole span lengths range from 30 to 200meters.



- Single jacket ADSS cable allowing an easy and cost-effective one-step installation using standard hardware and installation methods. Reduced weight design and smaller diameter allows the usage of smaller ducts.
- Loose tubes are made of PBT which provide great mechanical properties under a wide range of conditions such as crush test and impact test and are filled with water blocking gel for improved water resistant.
- MDPE single jacket with additives makes a resistant, durable, and easy to strip cable, providing superior protection against UV radiation, fungus, abrasion and other environmental factors.
- The SZ-stranded method for loose tubes and two ripcords ensures a quick and easy mid-span access.
- Dielectric central strength member requires no bonding or grounding.
- Aramid yarns have an excellent performance against high tension for direct-aerial installations, aerial to duct transitions and can be used for other applications that require added tensile performance such as long duct pulls. No messenger cable is required for installation, and no metallic components are used in ADSS cables.
- Performance IEC 60794, Telecordia GR20, ANSI/ICEA S-87-640, CE, RoHS, FCC.
- Meets the loading conditions of heavy, medium, or light storm loading areas as defined by the National Electric Safety Code (NESC).



Outdoor



Aerial



Duct Installation



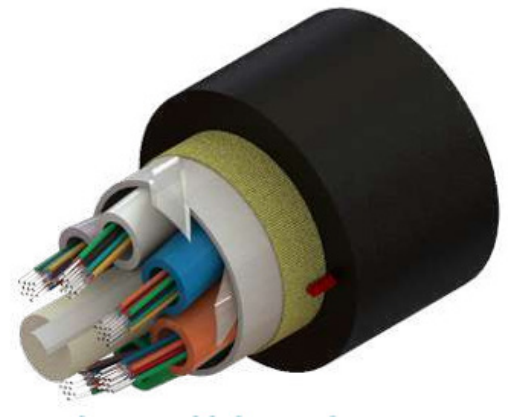
Self-supporting



UV Resistant



Water Blocking



## Fiber Properties

Items		Unit	Specification
Fiber Standard		ITU-T	G.652D
Mode Field Diameter	1310nm	μm	9.2±0.4
	1550nm	μm	10.4±0.8
Cladding Diameter		μm	125.0±1.0
Cladding Non-Circularity		%	≤1.0
Core-Cladding Concentricity Error		μm	≤0.5
Coating Diameter		μm	242±7
Cladding-Coating Concentricity Error		μm	≤12.0
Cable Cutoff Wavelength		nm	$\lambda_{cc} \leq 1260$
Attenuation (max.)	1310nm	dB/km	≤0.36
	1550nm	dB/km	≤0.22
Proof stress level		kpsi	≥100

## Cable Mechanical Characteristics

Fiber count	Structure	Fibers per Tube	Tube diameter [mm]	CSM/Pad diameter [mm]	Outer Jacket Thickness [mm]	Cable diameter [mm]	Cable weight [kg/km]
4	1+6	4	2.0±0.1	2.3/2.3	1.7±0.1	10.5±0.5	82
8	1+6	4	2.0±0.1	2.3/2.3	1.7±0.1	10.5±0.5	82
12	1+6	6	2.0±0.1	2.3/2.3	1.7±0.1	10.5±0.5	82
24	1+6	6	2.0±0.1	2.3/2.3	1.7±0.1	10.5±0.5	83
48	1+6	12	2.2±0.1	2.6/2.6	1.7±0.1	11.1±0.5	94
72	1+6	12	2.2±0.1	2.6/2.6	1.7±0.1	11.1±0.5	95
96	1+8	12	2.2±0.1	3.0/3.9	1.7±0.1	12.5±0.5	122
144	1+12	12	2.2±0.1	4.2/4.6	1.7±0.1	14.4±0.5	153

## Cable Performance

Items		Parameter
Loose Tube	Material	PBT
	Color	Full color spectrum
Filler	Material	PE
	Color	Black
CSM	Material	FRP
Non-metal reinforced pieces	Material	Polyester Yarn
Outer Jacket	Material	MDPE
	Color	Black
Minimal bending radius	Static	10 times cable diameter
	Dynamic	20 times cable diameter
Repeating bending	150N: 30 Load: 150N, number of cycles: 30 No obvious addition attenuation, no fiber break, and no cable damage	
Tensile performance	RTS	11000N
	MATl	5000N
	EDS	2700N
Crush	Short term	1000N/100mm
Torsion	150N: 10, $\pm 180^\circ$ Load: 150N, number of cycles: 10, twist angle: $180^\circ$ No obvious addition attenuation, no fiber break, and no cable damage	
Impact	450gx1 m; 125mm, 5 Impact energy: 450gx1 m, radius of hammer head: 125mm, number of impacts: 5 No obvious addition attenuation, no fiber break, and no cable damage	
Span (mean value under normal conditions)	100m	

## Ordering

PN	Description
NT-FOCAS-4SM	Self-Supporting ADSS Outdoor Singlemode G.652D 4 Fibers Cable
NT- FOCAS-8SM	Self-Supporting ADSS Outdoor Singlemode G.652D 8 Fibers Cable
NT- FOCAS-12SM	Self-Supporting ADSS Outdoor Singlemode G.652D 12 Fibers Cable
NT- FOCAS-24SM	Self-Supporting ADSS Outdoor Singlemode G.652D 24 Fibers Cable
NT- FOCAS-48SM	Self-Supporting ADSS Outdoor Singlemode G.652D 48 Fibers Cable
NT- FOCAS-72SM	Self-Supporting ADSS Outdoor Singlemode G.652D 72 Fibers Cable
NT- FOCAS-96SM	Self-Supporting ADSS Outdoor Singlemode G.652D 96 Fibers Cable
NT- FOCAS-144SM	Self-Supporting ADSS Outdoor Singlemode G.652D 144 Fibers Cable

Other number of fibers, G.655 and G.657 standard, Hybrid cables on demand

