



WAVEOPTICS

TECHNICAL DATA SHEET

OUTDOOR CABLE

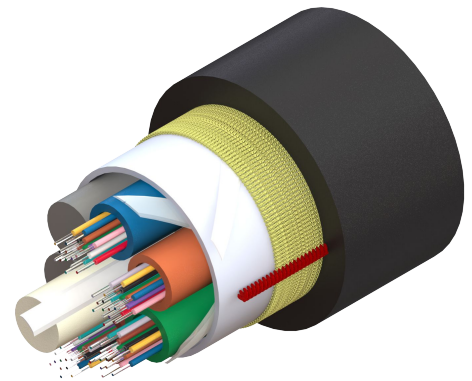
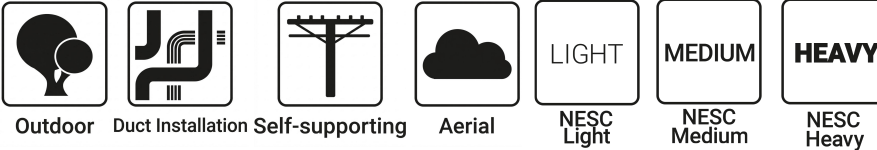
ADSS CABLES



SINGLE JACKET ADSS CABLE GEL-FILLED

FOSPC-XXX-X-SSSJXXX-XX0002-US

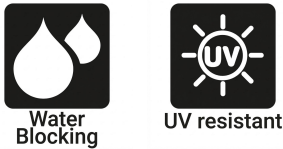
Applications:



ISOMETRIC / FOSPC-048-X-SSSJXXX-XX0002

(Illustrative images)

Protections:



Description:

WAVEOPTICS® Single-Jacket ADSS Cable is designed for aerial outside plant installations. As a self-supporting cable, it allows fast, single-pass installations without the need for a messenger wire. It can also be installed in duct applications. Suitable for spans from **300 to 1050 ft under NESC Light** conditions, **up to 900 ft under NESC Medium** conditions, and **up to 600 ft under NESC Heavy** conditions.

Loose tubes are constructed from PBT and filled with water-blocking gel, providing improved flexibility and allowing smaller bending radii.

The single polyethylene jacket with specialized additives provides superior protection against UV radiation, fungus, abrasion, and other environmental factors.

The S-Z stranding method used for the loose tubes, along with two ripcords, ensures quick and easy access to the optical fibers. This all-dielectric design does not require grounding. Aramid yarn provides excellent tensile strength, enabling reliable self-supporting installations without the need for a messenger cable.

Quality

WAVEOPTICS® cables are manufactured to high-quality standards.

This cable is designed to comply with the following standards:

- **FOTP-33 & FOTP-38:** Cable tensile loading and fiber strain test
- **FOTP-41:** Cable compressive test
- **FOTP-25:** Cable impact test
- **FOTP-104:** Cyclic flexing test
- **FOTP-85:** Cable twist test
- **FOTP-82:** Water penetration test
- **IEC 60794-1-21, Method E2B:** Jacket print test
- **FOTP-3:** Cable temperature cycling test
- **TIA 598D:** Código de colores para cable de fibra óptica

Each **WAVEOPTICS®** cable meets the highest quality standards in the industry. Every **WAVEOPTICS®** fiber optic cable reel includes a certificate of compliance, which physically attaches the tests performed in our quality laboratory.

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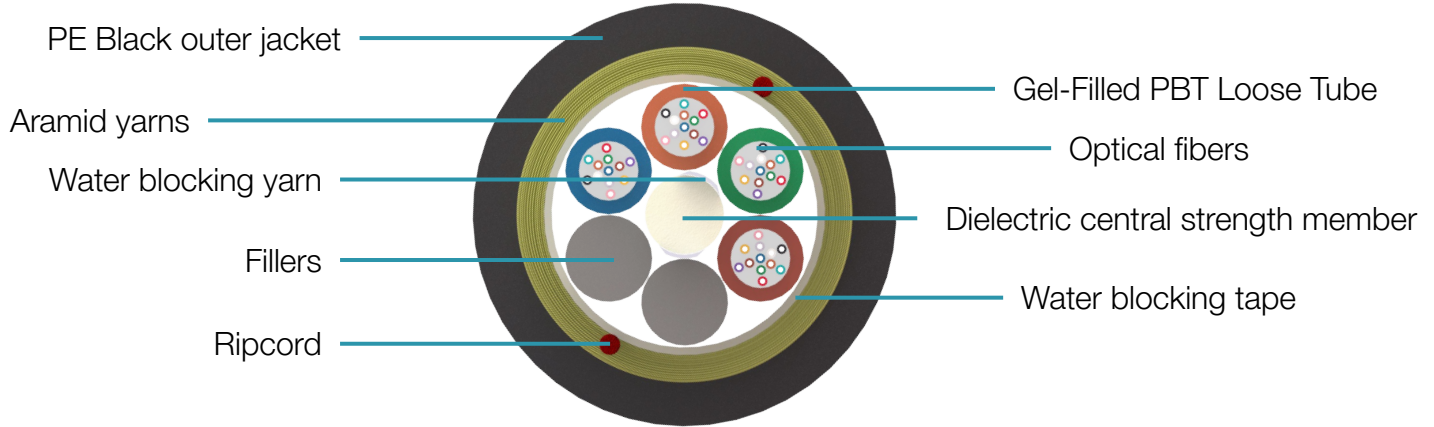
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ADSS CABLES

FOSPC-XXX-X-SSSJXXX-XX0002-US

Dimensions and properties



**Imagen ilustrativa

Design	
Fibers per tube	2 to 12 (or 24)
Fiber color code / Loose tube color code	
Dielectric central strength member	FRP
Outer jacket material / Thickness	MDPE / 1.55 mm (0.07 in)
Loose tube material / Diameter	PBT / 2.5 mm (0.10 in)
Drum Length	10,000 / 15,000 / 20,000 ft ± 5%
Temperature range	
Operation	-40°C to 70°C (-40° F to 158° F)
Installation	-30°C to 70°C (-22° F to 158° F)
Storage / Transport	-40°C to 70°C (-40° F to 158° F)
Mechanical properties	
Crush resistance (short-term / long-term)	2,200 N/100mm / 1,100 N/100mm
Minimum bend radius (operation / installation)	10 x OD / 20 x OD
SPAN	300 ft to 1050 ft*

Note: WAVEOPTICS® recommends storing the cable in an appropriate temperature environment prior to installation to allow the cable temperature to reach the specified installation temperature range, ensuring optimal installation results.

*Please consult NESC installation conditions table to know cable MCRL and maximum SPANS per NESC installation.

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NESC Installation conditions

NESC Light								
SPAN	Fiber count	Nominal Outer Diameter mm (in)	Cable Weight kg/km (lb/kft)	Maximum rated cable load N (lbf)	Tensile strength Unloaded N (lbf)	SAG - Loaded	Tensile strength Loaded N (lbf)	Dielectric central strength member diameter mm (in)
300 ft (~100 m)	2-72	11.4 (0.45)	101 (68)	1,918 (431)	1,131 (254)	1.0%	1,581 (355)	2.6 (0.1)
	96	13 (0.51)	121 (82)	2,001 (450)	1,362 (306)	1.0%	1,875 (422)	3/4.2 (0.1 /0.16)
	144	16.3 (0.64)	194 (130)	2,891 (650)	2,173 (488)	1.0%	2,817 (633)	3/7.4 (0.1 /0.31)
	192-216	17.1(0.67)	215 (144)	3,164 (711)	2,412 (542)	1.0%	3,088 (694)	2.6 (0.1)
	288	19.6 (0.77)	267 (179)	4,056 (912)	2,992 (673)	1.0%	3,767 (847)	3/5 (0.12 / 0.19)
450 ft (~140 m)	2-72	11.5 (0.45)	104 (70)	2,573 (578)	1,757 (395)	1.0%	2,438 (548)	2.6 (0.1)
	96	13.1 (0.52)	127 (85)	3,119 (701)	2,139 (481)	1.0%	2,916 (655)	3/4.2 (0.1 /0.16)
	144	16.6 (0.65)	209 (140)	4,856 (1092)	3,510 (789)	1.0%	4,495 (1,011)	3/7.4 (0.1 /0.31)
	192-216	17.4 (0.69)	231 (155)	5,296 (1191)	3,891 (875)	1.0%	4,923 (1,107)	2.6 (0.1)
600 ft (~190 m)	2-72	11.6 (0.46)	109 (73)	3,554 (799)	2,444 (549)	1.0%	3,303 (742)	2.6 (0.1)
	96	13.3 (0.52)	135 (91)	4,236 (952)	3,025 (680)	1.0%	4,009 (901)	3/4.2 (0.1 /0.16)
	144	16.7 (0.66)	217 (146)	6,238 (1402)	4,863 (1,093)	1.0%	6,100 (1,371)	3/7.4 (0.1 /0.31)
750 ft (~230 m)	2-72	11.8 (0.46)	115 (77)	4,536 (1020)	3,233 (727)	1.0%	4,279 (962)	2.6 (0.1)
	96	13.4 (0.53)	141 (94)	5,631 (1266)	3,943 (886)	1.0%	5,132 (1,154)	3/4.2 (0.1 /0.16)
900 ft (~270 m)	2-72	11.8 (0.46)	117 (79)	5,190 (1167)	3,943 (886)	1.0%	4,914 (1,105)	2.6 (0.1)
	96	13.5 (0.53)	144 (97)	6,229 (1400)	4,863 (1,093)	1.0%	5,974 (1,343)	3/4.2 (0.1 /0.16)
1050 ft (~320 m)	2-72	12 (0.47)	124 (84)	6,869 (1544)	4,888 (1,099)	1.0%	6,336 (1,424)	2.6 (0.1)
	96	13.8 (0.54)	156 (105)	8,024 (1804)	6,135 (1,379)	1.0%	7,800 (1,754)	3/4.2 (0.1 /0.16)

NESC Medium								
SPAN	Fiber count	Nominal Outer Diameter mm (in)	Cable Weight kg/km (lb/kft)	Maximum rated cable load N (lbf)	Tensile strength Unloaded N (lbf)	SAG - Loaded	Tensile strength Loaded N (lbf)	Dielectric central strength member diameter mm (in)
300 ft (~100 m)	2-72	11.5 (0.45)	104 (70)	2,573 (578)	1,171 (263)	2.80%	2,494 (561)	2.6 (0.1)
	96	13.1 (0.52)	126 (85)	2,839 (638)	1,415 (318)	2.80%	2,750 (618)	3/4.2 (0.1 /0.16)
	144	16.4 (0.65)	199 (134)	3,537 (795)	2,232 (502)	2.80%	3,390 (762)	3/7.4 (0.1 /0.31)
	192-216	17.2 (0.68)	220 (148)	3,981 (895)	2,473 (556)	2.80%	3,560 (800)	2.6 (0.1)
	288	19.6 (0.77)	267 (179)	4,056 (912)	2,992 (673)	2.80%	3,998 (899)	3/5 (0.12 / 0.19)
450 ft (~140 m)	2-72	11.7 (0.46)	112 (75)	3,881 (873)	1,878 (422)	2.80%	3,817 (858)	2.6 (0.1)
	96	13.3 (0.52)	136 (91)	4,516 (1015)	2,285 (514)	2.80%	4,214 (947)	3/4.2 (0.1 /0.16)
	144	16.6 (0.65)	210 (141)	5,316 (1195)	3,542 (796)	2.80%	5,186 (1,166)	3/7.4 (0.1 /0.31)
600 ft (~190 m)	192-216	17.5 (0.69)	238 (160)	6,173 (1388)	3,998 (899)	2.80%	5,491 (1,235)	2.6 (0.1)
	2-72	11.8 (0.46)	117 (79)	5,190 (1167)	2,629 (591)	2.80%	5,078 (1,142)	2.6 (0.1)
750 ft (~230 m)	96	13.5 (0.53)	144 (97)	6,229 (1400)	3,242 (729)	2.80%	5,650 (1,270)	3/4.2 (0.1 /0.16)
	2-72	12. (0.47)	124 (84)	6,869 (1544)	3,491 (785)	2.80%	6,401 (1,439)	2.6 (0.1)
900 ft (~270 m)	96	13.7 (0.54)	152 (102)	7,426 (1669)	4,272 (960)	2.80%	7,115 (1,600)	3/4.2 (0.1 /0.16)
	2-72	12.2 (0.048)	132 (89)	8,271 (1859)	4,438 (998)	2.80%	7,831 (1,761)	2.6 (0.1)
1050 ft (~320 m)	2-72	12.2 (0.048)	136 (91)	9,672 (2174)	5,326 (1,197)	2.80%	9,122 (2,051)	2.6 (0.1)



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NESC Heavy								
SPAN	Fiber count	Nominal Outer Diameter mm (in)	Cable Weight kg/km (lb/kft)	Maximum rated cable load N (lbf)	Tensile strength Unloaded N (lbf)	SAG - Loaded	Tensile strength Loaded N (lbf)	Dielectric central strength member diameter mm (in)
300 ft (~100 m)	2-72	11.7 (0.46)	113 (76)	4,209 (946)	1,263 (284)	4.00%	3,872 (871)	2.6 (0.1)
	96	13.3 (0.52)	135 (91)	4,236 (952)	1,512 (340)	4.00%	4,147 (932)	3/4.2 (0.1 /0.16)
	144	16.6 (0.65)	209 (140)	4,856 (1092)	2,340 (526)	4.00%	4,793 (1,077)	3/7.4 (0.1 /0.31)
	192-216	17.4 (0.69)	231 (155)	5,296 (1191)	2,594 (583)	4.00%	4,963 (1,116)	2.6 (0.1)
	288	19.8 (0.78)	280 (188)	5,560 (1250)	3,142 (706)	4.00%	5,419 (1,218)	3/5 (0.12 / 0.19)
450 ft (~140 m)	2-72	11.9 (0.47)	121 (81)	6,169 (1387)	2,033 (457)	4.00%	5,883 (1,323)	2.6 (0.1)
	96	13.6 (0.54)	148 (100)	6,827 (1535)	2,497 (561)	4.00%	6,338 (1,425)	3/4.2 (0.1 /0.16)
600 ft (~190 m)	2-72	12.2 (0.48)	132 (89)	8,271 (1859)	2,959 (665)	4.00%	7,872 (1,770)	2.6 (0.1)
	96	13.8 (0.54)	158 (106)	8,622 (1938)	3,548 (798)	4.00%	8,439 (1,897)	3/4.2 (0.1 /0.16)

Note: All NESC consider 1% Installation SAG

Printed Information on Outer Jacket

= /XXXX/ = /MONTH/YEAR/ = /BRAND/OPTICAL CABLE/ =  = /LOT#/ = /SPAN/ = /NESC/ = /FIBER COUNT/ = /FIBER TYPE/ =

- Printed in white hot stamping and resistant to physical tests on marking.
- Marking interval: every 2 feet or every 1 meter (0 to +1%).
- The marking can be changed according to customer requirements and will be in white inkjet.



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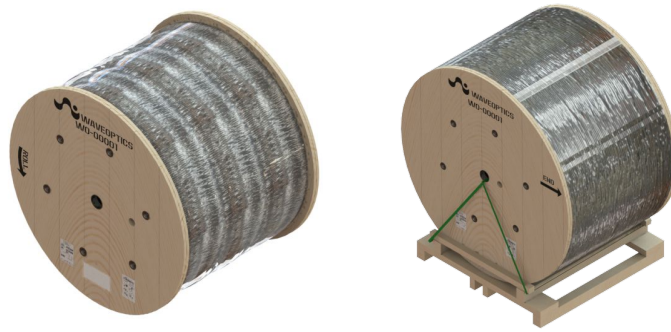
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Drum and pallet size and weight



Illustrative images

NESC Light				
Drum Length	Fiber count	Span	Drum size	Drum weight with pallet
10,000 ft	2 - 72	300 to 1050 ft	915 x 1100 x 1220 mm	109 kg
	96	300 to 750 ft	1220 x 1250 x 1390 mm	167.5 kg
		900 to 1050 ft	1220 x 1220 x 1340 mm	157.5 kg
	144	300 to 600 ft	1220 x 1650 x 1790 mm	252.5 kg
	192-216	300 to 450 ft		
288	300 ft			
15,000 ft	2 - 72	300 to 600 ft	1220 x 1220 x 1340 mm	157.5 kg
		750 to 1050 ft	1220 x 1300 x 1440 mm	169.5 kg
	96	300 to 450 ft	1220 x 1470 x 1610 mm	218.5 kg
		600 to 1050 ft	1220 x 1650 x 1790 mm	252.5 kg
	144	300 to 450 ft	1220 x 1770 x 1910 mm	276.5 kg
		600 ft	1220 x 1770 x 1910 mm	263.5 kg
	192-216	300 to 450 ft		
	288	300 ft	1220 x 1950 x 2090 mm	336.5 kg
20,000 ft	2 - 72	300 to 600 ft	1220 x 1650 x 1790 mm	218.5 kg
		750 to 1050 ft	1220 x 1650 x 1790 mm	252.5 kg
	96	300 to 900 ft		
		1050 ft	1220 x 1770 x 1910 mm	276.5 kg
	144	300 to 600 ft	1220 x 1950 x 2090 mm	336.5 kg
	192-216	300 to 450 ft		

All drums include:*

1. Drum handling instructions.
2. Test report certificate.
3. Product description (weight, dimensions, lot and part number)
4. END cable marking
5. Both ends include end caps to protect against humidity.

Notes:

- Please contact your sales agent for higher fiber counts or different drum lengths available.
- All documentation included in each drum of cable can be in english or spanish language.
- For a visual guide of the packaging for OEM products, consult with the R&D Department of W.O.Manufacturing.
- **Drum sizes are given length, width and height in that order (palletized)**

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NESC Medium				
Drum Length	Fiber count	Span	Drum size	Drum weight with pallet
10,000 ft	2 - 72	300 to 750 ft	915 x 1100 x 1220 mm	109 kg
		900 to 1050 ft	1170 x 1200 x 1340 mm	150.5 kg
	96	300 to 450 ft	1220 x 1250 x 1390 mm	167.5 kg
		600 to 750 ft	1220 x 1220 x 1340 mm	157.5 kg
	144	300 to 450 ft	1220 x 1650 x 1790 mm	252.5 kg
	192-216			
288	300 ft			
15,000 ft	2 - 72	300 to 450 ft	1220 x 1220 x 1340 mm	157.5 kg
		600 to 1050 ft	1220 x 1300 x 1440 mm	169.5 kg
	96	300 ft	1220 x 1470 x 1610 mm	218.5 kg
		450 to 750 ft	1220 x 1650 x 1790 mm	252.5 kg
	144	300 to 450 ft	1220 x 1770 x 1910 mm	276.5 kg
	192-216		1220 x 1770 x 1910 mm	263.5 kg
	288	300 ft	1220 x 1950 x 2090 mm	336.5 kg
	20,000 ft	2 - 72	300 ft	1220 x 1470 x 1610 mm
450 to 1050 ft			1220 x 1650 x 1790 mm	252.5 kg
96		300 to 750 ft		
144		300 to 450 ft	1220 x 1950 x 2090 mm	336.5 kg
192-216				

NESC Heavy				
Drum Length	Fiber count	Span	Drum size	Drum weight with pallet
10,000 ft	2 - 72	300 to 450 ft	915 x 1100 x 1220 mm	109 kg
		600 ft	1170 x 1200 x 1340 mm	150.5 kg
	96	300 ft	1220 x 1250 x 1390 mm	167.5 kg
		450 ft	1220 x 1220 x 1340 mm	157.5 kg
	600 ft	1170 x 1200 x 1340 mm	150.5 kg	
	144	300 ft	1220 x 1650 x 1790 mm	252.5 kg
192-216				
288	300 ft			
15,000 ft	2 - 72	300 ft	1220 x 1220 x 1340 mm	157.5 kg
		450 to 600 ft	1220 x 1300 x 1440 mm	169.5 kg
	96	300 to 600 ft	1220 x 1650 x 1790 mm	252.5 kg
	144	300 ft	1220 x 1770 x 1910 mm	276.5 kg
	192-216		1220 x 1650 x 1910 mm	263.5 kg
	288	300 ft	1220 x 2060 x 2200 mm	368.5 kg
20,000 ft	2 - 72	300 to 600 ft	1220 x 1650 x 1790 mm	252.5 kg
		300 to 450 ft		
	96	600 ft	1220 x 1220 x 1340 mm	157.5 kg
	144	300 ft	1220 x 1950 x 2090 mm	336.5 kg
192-216				



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Transmission performance by fiber type

Tipo de fibra	Monomodo			
Fiber type	G652.D	G657.A1	G657.A2	G652.D
WAVEOPTICS® fiber code	F	T	E	1 (OFS®)
Wavelength (nm)	1310 / 1550			
Maximum attenuation (dB/km) (1)	≤0.35 / ≤0.25		≤0.40 / ≤0.30	
Cable marking specification	G652.D	G657.A1	G657.A2	G652.D

Note:

(1) Max. attenuation is calculated after cabling process

Mechanical / Environmental performance

Standard	Performance	Standard	Performance
FOTP-33 / FOTP-38 Cable tensile loading and fiber strain test	Fiber strain allowed at short-term load: 0.20% Fiber strain allowed at long-term load: 0.60%. Tensile Strength: According to NESC installation.	FOTP-85 Cable twist test	Increase in attenuation: ≤ 0.15 dB at 1550 nm
FOTP-41 Cable compressive test	Short-term load: 2200N/100mm Long-term load: 1,100N/100mm	IEC 60794-1-21, Method E2B, Jacket print test	Print statement and length markings remain discernable after testing
FOTP-25 Cable impact test	Impact energy: 4.4N*m	FOTP-3 Cable temperature cycling test	Temperature extremes: -40°C and + 70°C
FOTP-104 Cyclic flexing test	Increase in attenuation: ≤ 0.15 dB at 1550 nm		

Note: Contact your sales representative for more information on cable tests.

Part number configuration

FOSPC-**XXX**-**X**-SSSJ**XXX**-**XX**002-US

Fiber count	Fiber type	Span	NESC	Unit marked
002 - 2 Fibers	F - WO SM G652.D Fiber	1 - 300 ft span	N/A - NESC Light	FT - Feet
004 - 4 Fibers	T - WO SM G657.A1 Fiber	1D - 450 ft span	M - NESC Medium	00 - Meters
006 - 6 Fibers	E - WO SM G657.A2 Fiber	1I - 600 ft span	V - NESC Heavy	
008 - 8 Fibers	1 - OFS SM G652.D Fiber	1C - 750 ft span		
012 - 12 Fibers		2H - 900 ft span		
024 - 24 Fibers		3B - 1050 ft span		
036 - 36 Fibers				
048 - 48 Fibers				
060 - 60 Fibers				
072 - 72 Fibers				
096 - 96 Fibers				
144 - 144 Fibers				
192 - 192 Fibers				
216 - 216 Fibers				
288 - 288 Fibers				

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