

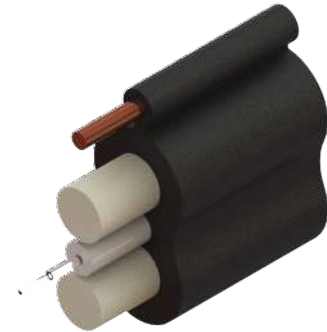
# Toneable Micro Flat Drop Cable

## FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

### Applications



### Protections



TONEABLE MICRO FLAT DROP UV RESISTANT CABLE 900UM LSZH TIGHT BUFFER 01F G657.A1 FIBER FT

Note: Protections marked with "\*" are only applicable for the tight buffer in the 900um configurations. The rest are only applicable for the outer jacket.

### Description

Waveoptics® Toneable Micro Flat Drop Cable is designed for self-supporting, direct-buried and duct installations. Ideal for drop applications, offering ease of access as well as easy installation. Compact and robust design provides ease of handling and also reduces transportation and storage costs. Available in 250 micron bare (1 to 2 fibers) and 900 (01 fiber) micron tight-buffered (1 fiber) configurations.

PE 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.

Two parallel dielectric strength members that offer exceptional crush resistance. The FRP strength members are coated with EAA for improved adherence.

Copper toning conductor allows effortless detection in direct-buried installation.

### Quality

Waveoptics® is a ISO-9001:2015 certified company.

We meet or exceed the following international standards:

- Telcordia GR-20: Generic requirements for optical fiber and optical fiber cable.
- IEC 60794: Basic requirements for optical fiber and cable elements.
- ANSI/ICEA S-87-640: Standard for optical fiber outside plant communications cable.

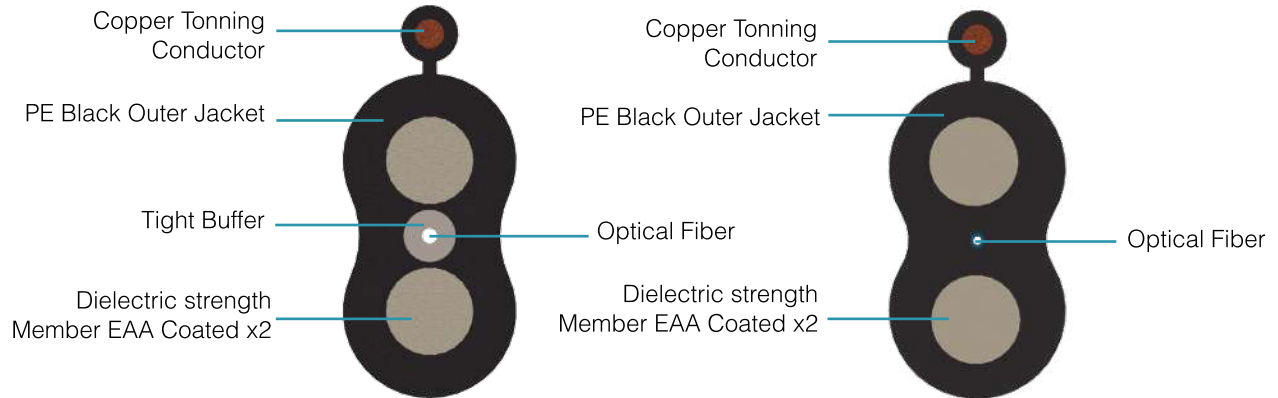
Each Waveoptics® cable meets the highest quality standards in the industry and contains a compliance certificate in which the performed tests in our quality laboratory are physically attached.

# TECHNICAL DATA SHEET

## INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

### Dimensions & Properties



Design	
Fiber Count	1 - 2
Fiber Color Code (250 um Configuration / 900um Tight Buffer Configuration)	<span style="background-color: blue; color: white; padding: 2px;">1</span> <span style="background-color: orange; color: white; padding: 2px;">2</span> <span style="background-color: green; color: white; padding: 2px;">3</span> <span style="background-color: brown; color: white; padding: 2px;">4</span> / <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px; vertical-align: middle;"></span>
Dielectric Strength Member Material / Diameter	EAA Coated FRP / 1.35 mm
Toning Conductor	24 AWG Copper Wire
Outer Jacket Material	LLDPE
Tight Buffer Material (900 um Configuration)	LSZH
Drum Length	5,000 ft, 10,000 ft & 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/100 mm / 1,100 N/100 mm
Minimum Bend Radius (Operation / Installation)	10 x OD / 20 x OD

Note: Waveoptics® recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Folio EI-080-01-EN

Last Review 1/17/2024

[www.waveoptics.net](http://www.waveoptics.net)

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# TECHNICAL DATA SHEET INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

## Dimensions & Properties


Cable Configuration	Fiber Count	Tight Buffer Material	Cable Weight (kg/km)(lb/kft)(±10%)	Tensile Strength (N)(lbf) Long-Term/ Short-Term	Nominal Outer Dimensions (mm)(in)	Dielectric Strength Member Diameter (mm) (in)
Bare fiber (250um)	1-2	N/A	22 (14.8)	210 / 700 (47 / 157)	6.6 x 3.0 (0.26 x 0.12)	1.35
Tight buffer (900um)	1	LSZH	23 (14.8)	210 / 700 (47 / 157)	6.6 x 3.0 (0.26 x 0.12)	1.35

## Printed Information on Outer Jacket for 250um Configuration.

= /MONTH/ /YEAR/ WAVEOPTICS OPTICAL CABLE = =TMCFD= =/FIBER SIZE/=  = =/FIBER TYPE/= = /FIBER COUNT/= = /FEET\* / FT= = /LOT# / =

- Printed in white and resistant to physical tests on marking
- Marking interval: every 2 feet + 1%
- The marking can be changed according to customer requirements

## Printed Information on Outer Jacket for 900um Configuration.

= /MONTH/ /YEAR/ WAVEOPTICS OPTICAL CABLE = =TMCFDL= =/FIBER SIZE/=  = =/FIBER TYPE/= = /FIBER COUNT/= = /FEET\* / FT= = /LOT# / =

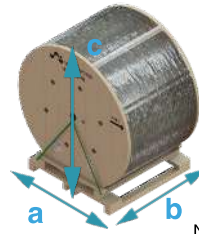
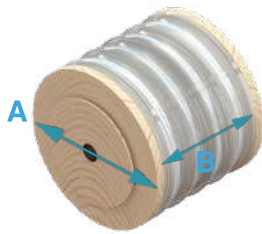
- Printed in black, except for dark colored cables, which will be printed in white.
- Marking interval: every 2 feet + 1%
- The marking can be changed according to customer requirements.

# TECHNICAL DATA SHEET

## INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

### Drum Dimensions and Pallet Packaging Information



Note: Reference Image

Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	10,000 (3,048)	1-2	570 (22)	560 (22)	92 (203)	10,000 (3,048)	760 (30)	760 (30)	730 (29)
	20,000 (6,096)		780 (31)	630 (25)	167 (368)	20,000 (6,096)	810 (32)	760 (30)	890 (35)
900 um	10,000 (3,048)	1	570 (22)	560 (22)	92 (203)	10,000 (3,048)	760 (30)	760 (30)	730 (29)
	20,000 (6,096)		780 (31)	630 (25)	167 (368)	20,000 (6,096)	810 (32)	760 (30)	890 (35)
250 um	10,000 (3,048)	1-2	570 (22)	560 (22)	184 (406)	20,000 (6,096)	1220 (48)	760 (30)	730 (29)
	20,000 (6,096)		780 (31)	630 (25)	334 (736)	40,000 (12,192)	760 (30)	1400 (55)	880 (34)
900 um	10,000 (3,048)	1	570 (22)	560 (22)	184 (406)	20,000 (6,096)	1220 (48)	760 (30)	730 (29)
	20,000 (6,096)		780 (31)	630 (25)	334 (736)	40,000 (12,192)	760 (30)	1400 (55)	880 (34)
250 um	10,000 (3,048)	1-2	570 (22)	560 (22)	368 (811)	40,000 (12,192)	1220 (48)	1450 (57)	710 (28)
	20,000 (6,096)		780 (31)	630 (25)	668 (1,473)	80,000 (24,384)	1450 (57)	1450 (57)	900 (35)
900 um	10,000 (3,048)	1	570 (22)	560 (22)	368 (811)	40,000 (12,192)	1220 (48)	1450 (57)	710 (28)
	20,000 (6,096)		780 (31)	630 (25)	668 (1,473)	80,000 (24,384)	1450 (57)	1450 (57)	900 (35)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**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

# TECHNICAL DATA SHEET

## INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

### Drum Dimensions and Pallet Packaging Information



Note: Reference Image

Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	5,000 (1,524)	1-2	480 (19)	440 (17)	63 (139)	5,000 (1,524)	760 (30)	550 (21)	610 (24)
	10,000 (3,048)		570 (22)	530 (21)	97 (214)	10,000 (3,048)	760 (30)	650 (26)	700 (27)
	20,000 (6,096)		750 (30)	620 (24)	167 (368)	20,000 (6,096)	760 (30)	760 (30)	880 (35)
900 um	5,000 (1,524)	1	480 (19)	440 (17)	63 (139)	5,000 (1,524)	760 (30)	550 (21)	610 (24)
	10,000 (3,048)		570 (22)	530 (21)	97 (214)	10,000 (3,048)	760 (30)	650 (26)	700 (27)
	20,000 (6,096)		750 (30)	620 (24)	167 (368)	20,000 (6,096)	760 (30)	760 (30)	880 (35)
250 um	5,000 (1,524)	1-2	480 (19)	440 (17)	126 (278)	10,000 (3,048)	1000 (39)	550 (21)	620 (25)
	10,000 (3,048)		570 (22)	530 (21)	194 (428)	20,000 (6,096)	1220 (48)	650 (26)	710 (28)
900 um	5,000 (1,524)	1	480 (19)	440 (17)	126 (278)	10,000 (3,048)	1000 (39)	550 (21)	620 (25)
	10,000 (3,048)		570 (22)	530 (21)	194 (428)	20,000 (6,096)	1220 (48)	650 (26)	710 (28)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**All drums include:\***

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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

# TECHNICAL DATA SHEET

## INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX / 1-2 Fibers

### Drum Dimensions and Pallet Packaging Information



Note: Reference Image

Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	5,000 (1,524)	1-2	480 (19)	440 (17)	252 (555)	20,000 (6,096)	1000 (39)	1050 (41)	610 (24)
	10,000 (3,048)		570 (22)	530 (21)	388 (855)	40,000 (12,192)	1220 (48)	1200 (47)	710 (28)
900 um	5,000 (1,524)	1	480 (19)	440 (17)	252 (555)	20,000 (6,096)	1000 (39)	1050 (41)	610 (24)
	10,000 (3,048)		570 (22)	530 (21)	388 (855)	40,000 (12,192)	1220 (48)	1200 (47)	710 (28)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**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

**Folio EI-080-01-EN**

**Last Review 1/17/2024**

[www.waveoptics.net](http://www.waveoptics.net)

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# TECHNICAL DATA SHEET

## INDOOR-OUTDOOR CABLE

FOSPC-0XX-X-MCFDX-FTXXX-EX / 1-4 Fibers

### Drum Dimensions and Pallet Packaging Information



Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	10,000 (3,048)	1-2	780 (31)	535 (21)	77 (170)	10,000 (3,048)	1000 (39)	760 (30)	1110 (44)
900 um	10,000 (3,048)	1	780 (31)	535 (21)	77 (170)	10,000 (3,048)	1000 (39)	760 (30)	1110 (44)
250 um	10,000 (3,048)	1-2	780 (31)	535 (21)	154 (339)	20,000 (6,096)	1000 (39)	1220 (48)	1090 (43)
900 um	10,000 (3,048)	1	780 (31)	535 (21)	154 (339)	20,000 (6,096)	1000 (39)	1220 (48)	1090 (43)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**All drums include:\***

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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

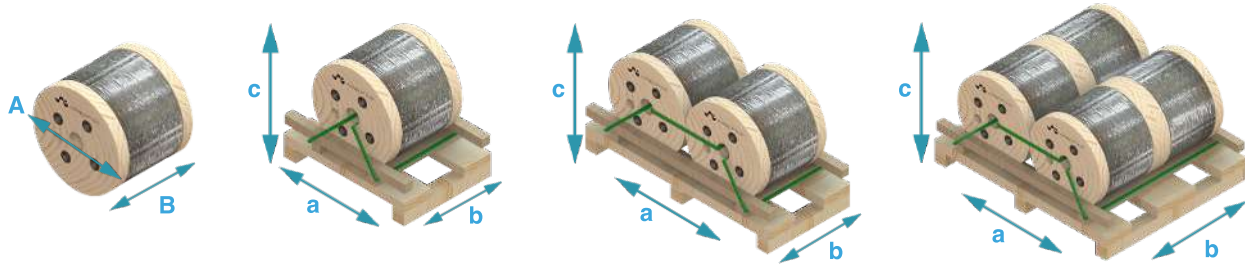
**Folio EI-084-01-EN**

**Last Review 1/17/2024**

# TECHNICAL DATA SHEET INDOOR-OUTDOOR CABLE

FOSPC-0XX-X-MCFDX-FTXXX-EX / 1-4 Fibers

## Drum Dimensions and Pallet Packaging Information



Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	5,000 (1,524)	1-2	510 (20)	440 (17)	43 (95)	5,000 (1,524)	760 (30)	550 (22)	610 (24)
900 um	5,000 (1,524)	1	510 (20)	440 (17)	43 (95)	5,000 (1,524)	760 (30)	550 (22)	610 (24)
250 um	5,000 (1,524)	1-2	510 (20)	440 (17)	85 (187)	10,000 (3,048)	1220 (48)	550 (22)	620 (25)
900 um	5,000 (1,524)	1	510 (20)	440 (17)	85 (187)	10,000 (3,048)	1220 (48)	550 (22)	620 (25)
250 um	5,000 (1,524)	1-2	510 (20)	440 (17)	156 (344)	20,000 (6,096)	1220 (48)	1000 (39)	610 (24)
900 um	5,000 (1,524)	1	510 (20)	440 (17)	156 (344)	20,000 (6,096)	1220 (48)	1000 (39)	610 (24)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

### All drums include:\*

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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

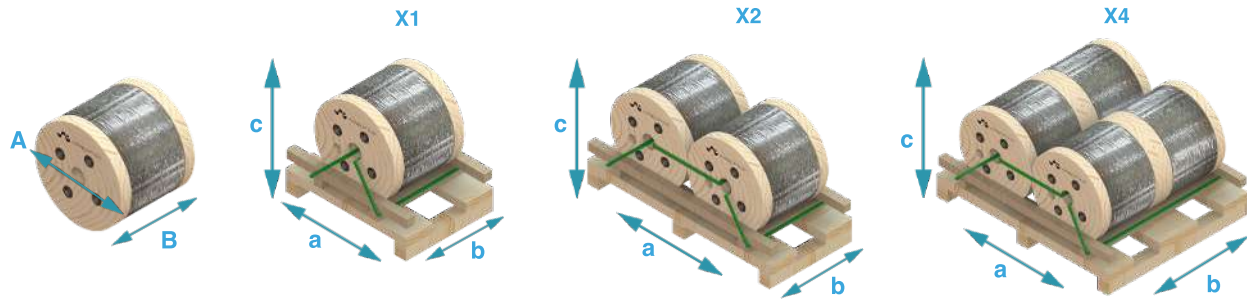


# TECHNICAL DATA SHEET

## INDOOR-OUTDOOR CABLE

FOSPC-0XX-X-MCFDX-FTXXX-EX / 1-4 Fibers

### Drum Dimensions and Pallet Packaging Information



Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	10,000 (3,048)	1-2	590 (23)	540 (21)	86 (190)	10,000 (3,048)	760 (30)	650 (26)	700 (28)
900 um	10,000 (3,048)	1	590 (23)	540 (21)	86 (190)	10,000 (3,048)	760 (30)	650 (26)	700 (28)
250 um	10,000 (3,048)	1-2	590 (23)	540 (21)	171 (377)	20,000 (6,096)	1220 (48)	650 (26)	710 (28)
900 um	10,000 (3,048)	1	590 (23)	540 (21)	171 (377)	20,000 (6,096)	1220 (48)	650 (26)	710 (28)
250 um	10,000 (3,048)	1-2	590 (23)	540 (21)	328 (723)	40,000 (12,192)	1220 (48)	1200 (47)	710 (28)
900 um	10,000 (3,048)	1	590 (23)	540 (21)	328 (723)	40,000 (12,192)	1220 (48)	1200 (47)	710 (28)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**All drums include:\***

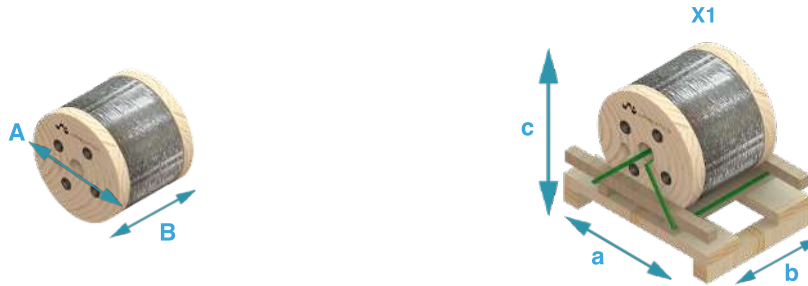
1. Drum handling instructions
2. Test report certificate
3. Product description (weight, dimensions, lot and part number)
4. End cable marking
5. Both ends include end caps to protect against humidity

# TECHNICAL DATA SHEET

## INDOOR-OUTDOOR CABLE

FOSPC-0XX-X-MCFDX-FTXXX-EX / 1-4 Fibers

### Drum Dimensions and Pallet Packaging Information



Cable Configuration	Drum Length (ft)(m) (±5%)	Fiber Count	A (mm)(in) (±5%)	B (mm)(in) (±5%)	Drum and Pallet Total Weight (kg)(lb) (±10%)	Pallet Capacity (ft)(m)(+5%)	Total Packaging(±5%)		
							a (mm)(in)	b (mm)(in)	c (mm)(in)
250 um	20,000 (6,096)	1-2	730 (29)	620 (24)	161 (355)	20,000 (6,096)	760 (30)	760 (30)	880 (35)
900 um	20,000 (6,096)	1	730 (29)	620 (24)	161 (355)	20,000 (6,096)	760 (30)	760 (30)	880 (35)

Note 1: Please contact your sales agent for higher fiber counts or different drum lengths available.

Note 2: All documentation included in each drum of cable is in English, if a different language is needed, please contact your sales agent.

Note 3: Drums should be stored indoors avoiding environmental exposures such as: sunlight, humidity, precipitation or dust. Therefore, FONCS does not guarantee the drum performance once exposed to any type of environmental exposure.

**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

# TECHNICAL DATA SHEET INDOOR - OUTDOOR CABLE

FOSPC-XXX-X-TMCFDX-FTXXX-EX/ 1-2 Fibers

## Transmission Performance by Fiber Type

Fiber Type	Single Mode		
Waveoptics® Fiber Type	G657.A1	G657.A2	G657.B3
Waveoptics® Fiber Code	T	E	N
Wavelength (nm)	1310 / 1550		
Max.attn. (dB/km) (1)	0.36/0.25	0.35/0.21	0.40/0.30
Cable Marking Specifications	G657.A1	G657.A2	G657.B3
Notes: (1) Maximum attenuation after cabling process			

## Part Number Configuration

# FOSPC-0XX-X-TMCFDX-FTXXX-EX

### Fiber Count

01 - 1 Fiber  
02 - 2 Fibers

### Waveoptics® Fiber Type

T - SM G657.A1  
E - SM G657.A2  
N - SM G657.B3

### Tight buffer material / Fiber configuration

N/A - Bare Fiber / 250um  
L - LSZH / 900um (only 1 fiber)

### Drum Length

0C1 - 5,000 ft  
0C2 - 10,000 ft  
0C3 - 20,000 ft

### Optical Cable Compliance

EX - Waveoptics® Slim Standard

Note: please contact your Waveoptics® distributor if you need any additional compliance or if you have questions about the part number configuration.

Folio EI-080-01-EN

Last Review 1/17/2024

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