

#### **TECHNICAL DATA SHEET** in **OUTDOOR CABLE**

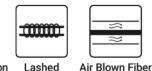
4

## **Loose Tube All-Dielectric Cable Gel-Filled / PBT**

FOSPC-XXX-X-SJAD-FT002-US/ 192-432 Fibers

### **Applications**





Outdoor Duct Installation

#### Protections



Water Blocking UV Resistant

### **Description**

LOOSE TUBE ALL-DIELECTRIC CABLE GEL-FILLED 288F G652D FIBER FT

Waveoptics® Loose tube all-dielectric cables are the most commonly-deployed outdoor cables, because of its price and its installation flexibility, since these cables can be installed both in aerial (lashed) installations as well as in ducts through the following techniques: air-blown, jetted or pulled into a duct.

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.

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.

The SZ-stranded method for loose tubes and two ripcords ensure a quick and easy mid-span access.

Dielectric central strength member requires no bonding or grounding.

### 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.



# Dimensions & Properties PE Black Outer Jacket Optical Fibers Ripcord x2 Dielectric Central Strength Member

Design							
Fiber per Tube	2 - 12						
Fiber Color Code	1   2   3   4   5   6   7   8   9   10   11   12     13   14   15   16   17   18   19   20   21   22   23   2     25   26   27   28   29   30   31   32   33   34   35   3						
Dielectric Central Strength Member	FRP						
Outer Jacket Material / Thickness	Polyethylene / 1.5 mm (0.06 in)						
Loose Tube Material / Diameter	PBT / 2.5 mm (0.1 in)						
Drum Length	10,000 ft, 15,000 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 / 100mm						
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.

# WAVEOPTICS TECHNICAL DATA SHEET OUTDOOR CABLE

FOSPC-XXX-X-SJAD-FT002-US / 192-432 Fibers

Fiber Count	Cable Weight (kg/km) (lb/kft) (±10%)			Dielectric Central Strength Member Diameter (mm) (in) (Without PE /with PE)
192-216	205 (138)	890 / 2,700 (200/607)	16.6 (0.65)	2.6 (0.1)
288	272 (183)	890 / 2,700 (200/607)	19 (0.75)	3 / 5 (0.12 / 0.2)
432	354 (238)	890 / 2,700 (200/607)	22.1 (0.87)	2.6 (0.1)

### **Printed Information on Outer Jacket**

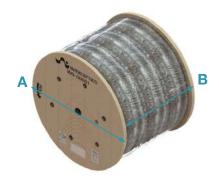
= /MONTH//YEAR/ WAVEOPTICS OPTICAL CABLE + = = SJAD = = = /FIBERTYPE/= = /FIBERCOUNT/= = /FEET\*/ FT = = /LOT# /=

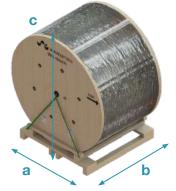
- Printed in white and resistant to physical tests on marking
- Marking interval: every 2 feet + 1%
- The marking can be changed according to customer requirements



FOSPC-XXX-X-SJAD-FT002-US / 192-432 Fibers

### **Drum Dimensions and Pallet Packaging Information**





Drum Length (ft) (m) (+5%)	Fiber A Count (mm) (in) (± 5%)	В	Drum and Pallet	Total Packaging (± 5%)			
			(mm) (in) (± 5%)	Total weight (kg) (lb) (± 10%)	a (mm) (in)	b (mm) (in)	c (mm) (in)
10,000 (3,048)	192-216	1,650 (65)	1,000 (39)	877 (1,934)	1,650 (65)	1,219 (48)	1,771 (70)
	288	1,650 (65)	1,000 (39)	1,082 (2,384)	1,650 (65)	1,219 (48)	1,771 (70)
	432	2,060 (81)	974 (38)	1,447 (3,191)	2,060 (81)	1,219 (48)	2,181 (86)
15,000 (4,572)	192-216	1,770 (70)	1,000 (39)	1,213 (2,675)	1,770 (70)	1,219 (48)	1,891 (74)
	288	2,060 (81)	1,612 (3,140)	1,100 (2,425)	2,060 (81)	1,219 (48)	2,181 (86)
20,000 (6,096)	192-216	2,060 (81)	974 (38)	1,618 (3,567)	2,060 (81)	1,219 (48)	2,181 (86)

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.

All drums include:\*

2. Test report certificate
3. Product description (weight, dimensions, lot and part number)



FOSPC-XXX-X-SJAD-FT002-US / 192-432 Fibers

### **Transmission Performance by Fiber Type**

Fiber Type	Single Mode				Multi mode			
Waveoptics® Fiber Type	G652.D	G657.A1	G657.A2	G655.C	OM1	OM2	OM3	OM4
Waveoptics® Fiber Code	F	Т	E	G	В	L	м	Р
OFS® Fiber Type	G652.D	AllWave® FLEX	-	-	-	-	-	-
OFS® Fiber Code	1	2	-	-	-	-	-	-
Wavelength (nm)	1310/1550			1550/1625		850/1300		
Max.attn. (dB/km) (1)	0.35/0.25	0.35/0.25	0.4/0.3	0.25/0.27	3.4/1	3/1		
Min. bandwidth (MHz*km) (2)				200/500	750/500	1500/500	3500/500	
1-Gigabit ethernet distance (m) (3)	-				300	750	>550	>550
10-Gigabit ethernet distance (m) (4)	-				-	150	300	400
40/100-Gigabit ethernet distance (m) (5)	-				-	_	100/70	150/100
Cable Marking Specifications Notes:	G652.D	G657.A1	G657.A2	G655.C	OM1	OM2	OM3	OM4

(1) Maximum attenuation after cabling process

(2) OFL (overfilled launch) bandwidth measurement

(3) 1-Gb/sat 850 nm transmissions based on IEEE 802.3z test protocol

\*For more information about the optical fibers, consult the corresponding data sheets.

### Part Number Configuration

## FOSPC-XXX-X-SJAD-FT002-US

#### **Fiber Count**

192 - 192 Fibers 216 - 216 Fibers 288 - 288 Fibers 432 - 432 Fibers

#### Waveoptics® Fiber Type

- F SM G652.D
- T- SM G657.A1
- E SM G657.A2
- G SM G655.C
- B MM OM1
- L- MM OM2 TRUE BEND
- M MM OM3 TRUE BEND
- P MM OM4 TRUE BEND

#### **OFS®** Fiber Type

1 - SM G652.D 2 - AllWave® FLEX

#### **Optical Cable Compliance**

US - Waveoptics® Standard

(4) 10-Gb/sat 850 nm transmissions based on IEEE 802.3ae test protocol
(5) 40/100-Gb/sat 850 nm transmissions based on IEEE P802.3ba test protocol

AC - Buy American Act Compliance

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