



A Furukawa Company

μlinx® Fiber Optic Cables  
Avionics



[www.ofsoptics.com](http://www.ofsoptics.com)

## **FIBER OPTIC CABLE SOLUTIONS**

FOR MANNED AND UNMANNED AVIONICS

High strength

High reliability

Light weight

Wide temperature performance

# μlinx® Fiber Optic Cables

## Avionics

OFS Micro-Links (μlinx) Avionics Fiber Optic Cables are designed to offer optimal performance in the avionics environment where high strength, high reliability, light weight and wide temperature performance (-65 to 150 °C) are absolutely necessary. μlinx cables have an outer diameter of only 0.8 mm (0.03") the approximate thickness of a credit card, and weight just 0.7 grams/m. The silicone/acrylate coated fiber is braided with aramid yarn for high strength and jacketed with ETFE for abrasion and chemical resistance. μlinx cable has passed the FAR 25.896 60° burn test, and the Boeing flame, smoke, and toxicity tests defined in ARINC 802 as well as additional tests defined on page 3.

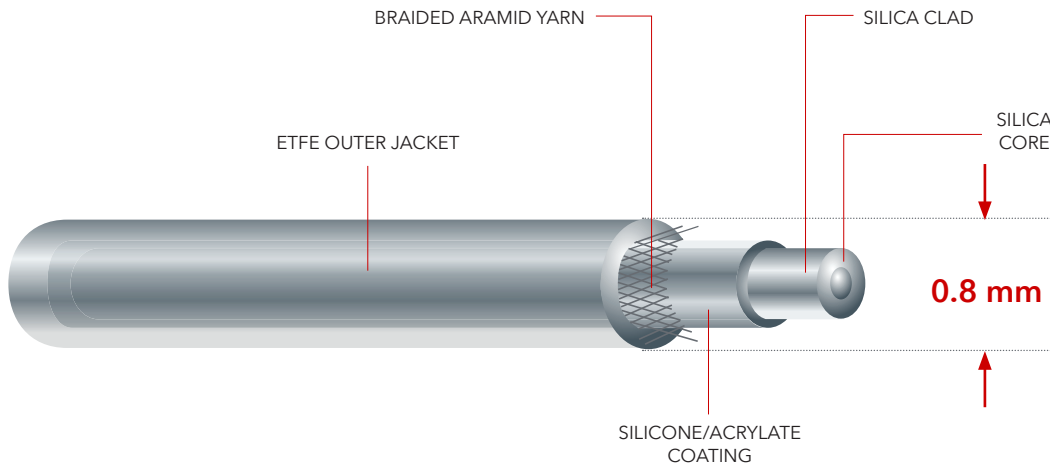
OFS has a long history of manufacturing fiber and cables for military and commercial aircraft and recommends μlinx Avionics Fiber Optic Cables for communication systems on manned and unmanned aircraft. μlinx Avionics Fiber Optic Cables are available in bend optimized single-mode, 50 μm OM3 multimode, or 62.5 μm multimode graded-index fiber designs.

μlinx Avionics Cables			
PRODUCT NAME	μlinx SM - Avionics	μlinx 50 - Avionics	μlinx 62.5 - Avionics
Core size		50 μm	62.5 μm
Mode Field Diameter	8.5 - 9.3 μm @ 1310 nm 9.5 - 10.5 μm @ 1550 nm		
Attenuation	≤ 1.5 dB/km @ 1310 nm ≤ 1.0 dB/km @ 1550 nm	≤ 5.0 dB/km @ 850 nm ≤ 3.0 dB/km @ 1300 nm	≤ 5.0 dB/km @ 850 nm ≤ 3.0 dB/km @ 1300 nm
Clad/Coating OD, Material	High temperature 125/250, Silicone, Acrylate		
Cable Diameter	0.8 ± 0.05 mm		
Outer Jacket	High temperature ETFE		
Strength Member	Braided aramid yarn		
Cable Weight	≤ 0.75 kg/km (0.50 lb/kft)		
Operating Temp	-65 to +150 °C		
Storage Temp	-40 to +85 °C (Limited by spool)		
Min Bend Radius Operation	8 mm (0.31")		
Min Bend Radius Installation	12 mm (0.47")		
Tensile Load Installation	100N (22.5 lbs)		
Tensile Load Operating	38N (8.5 lbs)		
<b>Order by Part Number</b>	<b>C60697</b>	<b>C26490</b>	<b>C25821</b>

**NOTE:** The operating temperature ranges are general guidelines. Consult with our Technical Sales department to determine the optimal coating and jacketing material for your specific application. 1.860.678.6636. Customized designs available upon request.

# FIBER OPTIC CABLE SOLUTIONS

FOR UNMANNED AVIONICS ENVIRONMENTS



## 50 $\mu$ m OM3 Test Data

Test	Test Standard	$\mu$ linx Results
Attenuation vs Temp Cycling -65 to 150 °C	ARINC 802	Max attenuation of 0.15dB @ 850 nm and 0.17dB @ 1300 nm returned to zero after test
Jacket shrinkage -65 to 150 °C	ARINC 802	Total shrinkage side A plus side B $\leq$ 0.08%
Flexure Endurance 3000 cycles with 1.4kg load	ARINC 802	> 100,000 cycles - no change in attenuation
Knot Test 16N load - knot on 24 mm mandrel	ARINC 802	No fiber breakage - Passed even with mandrel removed
Cable Scrape Abrasion 10N load with 0.6 mm pin	AB SO963-001 EN 3745-503	No change in attenuation - no damage to jacket
Tensile Loading & Bending 100N load with 8mm bend radius	FOTP-33 EIA/TIA-455/33B	Max change in attenuation: 1.43dB @ 850 nm and 0.7dB @ 1300 nm
Flammability	ARINC 802 FAR 25.869, 60 degree	Passed
Smoke & Toxicity	ARINC 802 Boeing BSS 7238, 7239 Airbus ABD0031 AITM 2.0008 A & B	Passed

**NOTE:** Please contact your sales representative for a more detailed  $\mu$ linx avionics cable test report.



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-FIBER-HELP (1-888-342-3743) from inside the USA  
or +1-770-798-5555 from outside the USA.  
EMEA Specific: +49 (0) 228 7489 201



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Date: 02/17