## F1A-PDMSM-M5



#### **Product Classification**

Product Type SureFlex® standard

Product Brand HELIAX® | SureFlex®

**Product Series** FSJ1-50A

General Specifications

Body Style, Connector AStraightBody Style, Connector BStraightInterface, Connector ASMA Male

**Interface, Connector B** 7-16 DIN Male

**Specification Sheet Revision Level** A

Dimensions

**Length** 0.5 m | 1.64 ft

Nominal Size 1/4 in

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

**700–3000 MHz** 1.222 20.01

Jumper Assembly Sample Label



# F1A-PDMSM-M5



### **Environmental Specifications**

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

#### Regulatory Compliance/Certifications

Agonov	Classification
Agency	Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

#### Included Products

35422-33	-	Heat Treated FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE Jacket
35422-75	-	Heat Treated FSJ1RK-50B, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket
F1TSM-C	_	SMA Male for 1/4 in FSJ1-50A cable
FSJ1-50A	-	FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE jacket
FSJ1RK-50A	-	FSJ1-50A, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket, B2ca s1a d0 a1 Compliant





Heat Treated FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE Jacket

#### **Product Classification**

Product Type Coaxial wireless cable

Product Brand HELIAX®
Product Series FSJ1-50A

General Specifications

**Flexibility** Superflexible

Jacket Color Black

**Performance Note**Attenuation values typical, guaranteed within 5%

**Dimensions** 

Diameter Over Dielectric4.826 mm | 0.19 inDiameter Over Jacket7.366 mm | 0.29 inInner Conductor OD1.905 mm | 0.075 inOuter Conductor OD6.35 mm | 0.25 in

Nominal Size 1/4 in

**Electrical Specifications** 

**Cable Impedance** 50 ohm ±1 ohm

 $\textbf{Capacitance} \hspace{1.5cm} 79.4 \, \text{pF/m} \, \mid \, 24.201 \, \text{pF/ft}$ 

dc Resistance, Inner Conductor9.843 ohms/km | 3 ohms/kftdc Resistance, Outer Conductor6.562 ohms/km | 2 ohms/kft

 $\begin{tabular}{ll} \begin{tabular}{ll} \beg$ 

 $\label{eq:local_potential} \mbox{Inductance} \qquad \qquad 0.2 \ \mu\mbox{H/m} \ \mid \ 0.061 \ \mu\mbox{H/ft}$ 

**Insulation Resistance** 100000 MOhms-km

Jacket Spark Test Voltage (rms) 5000 V

**Operating Frequency Band** 1 – 18000 MHz

Peak Power 6.4 kW



Velocity 82 %

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680-960 MHz	1.201	20.79
1700-2200 MHz	1.201	20.79
2200-2700 MHz	1.433	14.99

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
0.5	0.407	0.124
1.0	0.577	0.176
1.5	0.707	0.215
2.0	0.816	0.249
10.0	1.833	0.559
20.0	2.6	0.792
30.0	3.192	0.973
50.0	4.136	1.261
85.0	5.419	1.652
88.0	5.516	1.681
100.0	5.889	1.795
108.0	6.12	1.867
150.0	7.25	2.21
174.0	7.825	2.385
200.0	8.408	2.563
204.0	8.495	2.589
300.0	10.373	3.162
400.0	12.051	3.673
450.0	12.817	3.906
500.0	13.545	4.128
512.0	13.715	4.18
600.0	14.909	4.544
700.0	16.175	4.93
800.0	17.362	5.292
824.0	17.637	5.376

894.0	18.42	5.614
960.0	19.134	5.832
1000.0	19.556	5.96
1218.0	21.738	6.626
1250.0	22.044	6.719
1500.0	24.326	7.414
1700.0	26.038	7.936
1794.0	26.813	8.172
1800.0	26.862	8.187
2000.0	28.455	8.673
2100.0	29.227	8.908
2200.0	29.984	9.139
2300.0	30.727	9.365
2500.0	32.174	9.806
2700.0	33.576	10.233
3000.0	35.602	10.851
3400.0	38.183	11.638
3700.0	40.041	12.204
4000.0	41.841	12.753
5000.0	47.5	14.477
6000.0	52.747	16.077
8000.0	62.37	19.01
8800.0	65.974	20.108
10000.0	71.173	21.693
12000.0	79.393	24.198
14000.0	87.172	26.569
15800.0	93.872	28.611
16000.0	94.601	28.833
18000.0	101.745	31.01

## Material Specifications

Dielectric MaterialFoam PEJacket MaterialPE

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper



#### Mechanical Specifications

Minimum Bend Radius, multiple Bends25.4 mm | 1 inMinimum Bend Radius, single Bend25.4 mm | 1 in

Number of Bends, minimum 15 Number of Bends, typical 20

 Tensile Strength
 68 kg | 149.914 lb

 Bending Moment
 1.1 N-m | 9.736 in lb

Flat Plate Crush Strength 1.8 kg/mm | 100.795 lb/in

### **Environmental Specifications**

Installation temperature $-40 \,^{\circ}\text{C to} +60 \,^{\circ}\text{C (}-40 \,^{\circ}\text{F to} +140 \,^{\circ}\text{F)}$ Operating Temperature $-55 \,^{\circ}\text{C to} +85 \,^{\circ}\text{C (}-67 \,^{\circ}\text{F to} +185 \,^{\circ}\text{F)}$ Storage Temperature $-70 \,^{\circ}\text{C to} +85 \,^{\circ}\text{C (}-94 \,^{\circ}\text{F to} +185 \,^{\circ}\text{F)}$ 

Attenuation, Ambient Temperature $68 \, ^{\circ}\text{F} \mid 20 \, ^{\circ}\text{C}$ Average Power, Ambient Temperature $104 \, ^{\circ}\text{F} \mid 40 \, ^{\circ}\text{C}$ Average Power, Inner Conductor Temperature $212 \, ^{\circ}\text{F} \mid 100 \, ^{\circ}\text{C}$ 

Packaging and Weights

**Cable weight** 0.07 kg/m | 0.047 lb/ft

### Regulatory Compliance/Certifications

#### Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

UL/ETL Certification Compliant







Heat Treated FSJ1RK-50B, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket

#### **Product Classification**

Product Type Coaxial wireless cable

Product Brand HELIAX®

Product Series FSJ1-50B

General Specifications

**Flexibility** Superflexible

Jacket Color Black

**Performance Note**Attenuation values typical, guaranteed within 5%

**Dimensions** 

Diameter Over Dielectric4.826 mm | 0.19 inDiameter Over Jacket7.62 mm | 0.3 inInner Conductor OD1.905 mm | 0.075 inOuter Conductor OD6.35 mm | 0.25 in

Nominal Size 1/4 in

**Electrical Specifications** 

**Cable Impedance** 50 ohm ±1 ohm

 $\textbf{Capacitance} \hspace{1.5cm} 79.4 \, \text{pF/m} \, \mid \, 24.201 \, \text{pF/ft}$ 

dc Resistance, Inner Conductor9.843 ohms/km | 3 ohms/kftdc Resistance, Outer Conductor6.562 ohms/km | 2 ohms/kft

 $\begin{tabular}{ll} \begin{tabular}{ll} \beg$ 

 $\label{eq:local_potential} \mbox{Inductance} \qquad \qquad 0.2 \ \mu\mbox{H/m} \ \mid \ 0.061 \ \mu\mbox{H/ft}$ 

**Insulation Resistance** 100000 MOhms-km

Jacket Spark Test Voltage (rms) 4000 V

**Operating Frequency Band** 1 – 18000 MHz

Peak Power 6.4 kW



Velocity 82 %

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680-960 MHz	1.201	20.79
1700-2200 MHz	1.201	20.79
2200-2700 MHz	1.433	14.99

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.577	0.176	6.4
1.5	0.707	0.215	6.4
2.0	0.816	0.249	6.4
10.0	1.833	0.559	3.99
20.0	2.6	0.792	2.81
30.0	3.192	0.973	2.29
50.0	4.136	1.261	1.77
85.0	5.419	1.652	1.35
88.0	5.516	1.681	1.33
100.0	5.889	1.795	1.24
108.0	6.125	1.867	1.19
150.0	7.25	2.21	1.01
174.0	7.825	2.385	0.93
200.0	8.408	2.563	0.87
204.0	8.495	2.589	0.86
300.0	10.373	3.162	0.71
400.0	12.051	3.673	0.61
450.0	12.817	3.906	0.57
460.0	12.965	3.952	0.56
500.0	13.545	4.128	0.54
512.0	13.715	4.18	0.53
600.0	14.909	4.544	0.49
700.0	16.175	4.93	0.45
800.0	17.362	5.292	0.42
824.0	17.637	5.376	0.41

ANDREW®
an Amphenol company

894.0	18.42	5.614	0.4
960.0	19.134	5.832	0.38
1000.0	19.556	5.96	0.37
1218.0	21.738	6.626	0.34
1250.0	22.044	6.719	0.33
1500.0	24.326	7.414	0.3
1700.0	26.038	7.936	0.28
1794.0	26.813	8.172	0.27
1800.0	26.862	8.187	0.27
2000.0	28.455	8.673	0.26
2100.0	29.227	8.908	0.25
2200.0	29.984	9.139	0.24
2300.0	30.727	9.365	0.24
2500.0	32.174	9.806	0.23
2700.0	33.576	10.233	0.22
3000.0	35.602	10.851	0.21
3400.0	38.183	11.638	0.19
3600.0	39.428	12.017	0.19
3700.0	40.041	12.204	0.18
3800.0	40.647	12.389	0.18
3900.0	41.247	12.571	0.18
4000.0	41.841	12.753	0.17
4100.0	42.429	12.932	0.17
4200.0	43.012	13.11	0.17
4300.0	43.59	13.286	0.17
4400.0	44.163	13.46	0.17
4500.0	44.73	13.633	0.16
4600.0	45.293	13.805	0.16
4700.0	45.852	13.975	0.16
4800.0	46.405	14.144	0.16
4900.0	46.955	14.311	0.16
5000.0	47.5	14.477	0.15
6000.0	52.747	16.077	0.14
8000.0	62.37	19.01	0.12
8800.0	65.974	20.108	0.11

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10000.0	71.173	21.693	0.1
12000.0	79.393	24.198	0.09
14000.0	87.172	26.569	0.08
15800.0	93.872	28.611	0.08
16000.0	94.601	28.833	0.08
18000.0	101.745	31.01	0.07

#### Material Specifications

**Dielectric Material** Foam PE

Jacket Material Non-halogenated, fire retardant polyolefin

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper

### Mechanical Specifications

Minimum Bend Radius, multiple Bends25.4 mm | 1 inMinimum Bend Radius, single Bend25.4 mm | 1 in

Number of Bends, minimum 15 Number of Bends, typical 20

 Tensile Strength
 68 kg | 149.914 lb

 Bending Moment
 1.1 N-m | 9.736 in lb

Flat Plate Crush Strength 1.8 kg/mm | 100.795 lb/in

### **Environmental Specifications**

Installation temperature $-40 \,^{\circ}\text{C to} +60 \,^{\circ}\text{C (-40 °F to} +140 °F)$ Operating Temperature $-40 \,^{\circ}\text{C to} +60 \,^{\circ}\text{C (-40 °F to} +140 °F)$ Storage Temperature $-40 \,^{\circ}\text{C to} +60 \,^{\circ}\text{C (-40 °F to} +140 °F)$ 

Attenuation, Ambient Temperature68 °F | 20 °CAverage Power, Ambient Temperature104 °F | 40 °CAverage Power, Inner Conductor Temperature212 °F | 100 °CFire Retardancy Test MethodUL 1666/CATVR/CMR

Smoke Index Test Method IEC 61034

**Toxicity Index Test Method** IEC 60754-1 | IEC 60754-2

Packaging and Weights

ANDREW® an Amphenol company

**Cable weight** 0.07 kg/m | 0.047 lb/ft

## Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

UL/ETL Certification Compliant



## F1TSM-C



#### SMA Male for 1/4 in FS31-50A cable

#### **Product Classification**

**Product Type** Wireless and radiating connector

Product Brand HELIAX®
Product Series FSJ1-50A

## General Specifications

Body StyleStraightCable FamilyFSJ1-50AInner Contact Attachment MethodCaptivated

Inner Contact Plating Gold

InterfaceSMA MaleMounting AngleStraight

Outer Contact Attachment Method Self-clamping

 Outer Contact Plating
 Trimetal

 Pressurizable
 No

#### Dimensions

 Height
 14.22 mm | 0.56 in

 Width
 14.22 mm | 0.56 in

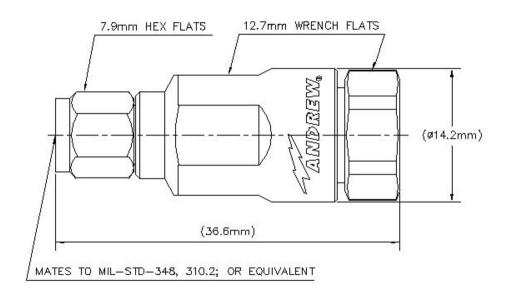
 Length
 36.58 mm | 1.44 in

 Diameter
 14.22 mm | 0.56 in

Nominal Size 1/4 in

## Outline Drawing





## **Electrical Specifications**

**Average Power at Frequency** 0.4 kW @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage1000 VInner Contact Resistance, maximum3 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 6000 MHz

 Outer Contact Resistance, maximum
 2.5 mOhm

 Peak Power, maximum
 5 kW

RF Operating Voltage, maximum (vrms) 500 V
Shielding Effectiveness -110 dB

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0-3000 MHz	1.173	21.98
3000-6000 MHz	1.222	20.01
6000-9000 MHz	1.29	18

Mechanical Specifications



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## F1TSM-C

Connector Retention Tensile Force 449.27 N | 101 lbf

**Coupling Nut Proof Torque** 1.7 N-m | 15.046 in lb

**Coupling Nut Proof Torque Method** IEC 61169-16:9.3.11

**Coupling Nut Retention Force** 266.98 N | 60.02 lbf

**Coupling Nut Retention Force Method** IEC 61169-15:9.3.11

**Insertion Force** 97.86 N | 22 lbf

**Insertion Force Method** IEC 61169-16:9.3.5

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:17

Mechanical Shock Test Method IEC 60068-2-27

#### **Environmental Specifications**

**Operating Temperature**  $-55 \,^{\circ}\text{C} \text{ to } +85 \,^{\circ}\text{C} \, (-67 \,^{\circ}\text{F to } +185 \,^{\circ}\text{F})$ 

Storage Temperature  $-65 \,^{\circ}\text{C}$  to  $+125 \,^{\circ}\text{C}$  (-85  $^{\circ}\text{F}$  to  $+257 \,^{\circ}\text{F}$ )

Attenuation, Ambient Temperature  $20~^{\circ}\text{C} \mid 68~^{\circ}\text{F}$ 

Average Power, Ambient Temperature 40  $^{\circ}\text{C}$  | 104  $^{\circ}\text{F}$ 

**Average Power, Inner Conductor Temperature** 100 °C | 212 °F

Corrosion Test Method IEC 60068-2-11

Moisture Resistance Test Method IEC 60068-2-3

Thermal Shock Test Method IEC 60068-2-14

Vibration Test Method IEC 60068-2-6

Packaging and Weights

**Weight, net** 24.99 g | 0.055 lb

#### Regulatory Compliance/Certifications

#### Agency Classification

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant







FSJ1-50A, HELIAX® Superflexible Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black PE jacket

#### **Product Classification**

 Product Type
 Coaxial wireless cable

 Product Brand
 HELIAX® | SureFlex®

 Product Series
 FSJ1-50A | MLOC

General Specifications

**Product Number** 887009902/00 | SZ887009902/00

**Flexibility** Superflexible

Jacket Color Black

**Performance Note**Attenuation values typical, guaranteed within 5%

**Dimensions** 

Diameter Over Dielectric4.826 mm | 0.19 inDiameter Over Jacket7.366 mm | 0.29 inInner Conductor OD1.905 mm | 0.075 inOuter Conductor OD6.35 mm | 0.25 in

Nominal Size 1/4 in

**Electrical Specifications** 

Cable Impedance50 ohm ±1 ohm

Capacitance79.4 pF/m | 24.201 pF/ftdc Resistance, Inner Conductor9.843 ohms/km | 3 ohms/kftdc Resistance, Outer Conductor7.216 ohms/km | 2.199 ohms/kft

dc Test Voltage 1600 V

**Inductance** 0.2  $\mu$ H/m | 0.061  $\mu$ H/ft

**Insulation Resistance** 100000 MOhms-km

Jacket Spark Test Voltage (rms) 5000 V

**Operating Frequency Band** 1 – 18000 MHz



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Peak Power6.4 kWVelocity82 %

#### VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680-960 MHz	1.201	20.8
1700-2200 MHz	1.201	20.8
2200-2700 MHz	1.433	15

#### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.577	0.176	6.4
1.5	0.707	0.215	6.4
2.0	0.816	0.249	6.4
10.0	1.833	0.559	3.99
20.0	2.6	0.792	2.81
30.0	3.192	0.973	2.29
50.0	4.136	1.261	1.77
85.0	5.419	1.652	1.35
88.0	5.516	1.681	1.33
100.0	5.889	1.795	1.24
108.0	6.125	1.867	1.19
150.0	7.25	2.21	1.01
174.0	7.825	2.385	0.93
200.0	8.408	2.563	0.87
204.0	8.495	2.589	0.86
300.0	10.373	3.162	0.71
400.0	12.051	3.673	0.61
450.0	12.817	3.906	0.57
460.0	12.965	3.952	0.56
500.0	13.545	4.128	0.54
512.0	13.715	4.18	0.53
600.0	14.909	4.544	0.49
700.0	16.175	4.93	0.45
800.0	17.362	5.292	0.42

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824.0	17.637	5.376	0.41
894.0	18.42	5.614	0.4
960.0	19.134	5.832	0.38
1000.0	19.556	5.96	0.37
1218.0	21.738	6.626	0.34
1250.0	22.044	6.719	0.33
1500.0	24.326	7.414	0.3
1700.0	26.038	7.936	0.28
1794.0	26.813	8.172	0.27
1800.0	26.862	8.187	0.27
2000.0	28.455	8.673	0.26
2100.0	29.227	8.908	0.25
2200.0	29.984	9.139	0.24
2300.0	30.727	9.365	0.24
2500.0	32.174	9.806	0.23
2700.0	33.576	10.233	0.22
3000.0	35.602	10.851	0.21
3400.0	38.183	11.638	0.19
3600.0	39.428	12.017	0.19
3700.0	40.041	12.204	0.18
3800.0	40.647	12.389	0.18
3900.0	41.247	12.571	0.18
4000.0	41.841	12.753	0.17
4100.0	42.429	12.932	0.17
4200.0	43.012	13.11	0.17
4300.0	43.59	13.286	0.17
4400.0	44.163	13.46	0.17
4500.0	44.73	13.633	0.16
4600.0	45.293	13.805	0.16
4700.0	45.852	13.975	0.16
4800.0	46.405	14.144	0.16
4900.0	46.955	14.311	0.16
5000.0	47.5	14.477	0.15
6000.0	52.747	16.077	0.14
8000.0	62.37	19.01	0.12

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8800.0	65.974	20.108	0.11
10000.0	71.173	21.693	0.1
12000.0	79.393	24.198	0.09
14000.0	87.172	26.569	0.08
15800.0	93.872	28.611	0.08
16000.0	94.601	28.833	0.08
18000.0	101.745	31.01	0.07

### Material Specifications

**Dielectric Material** Foam PE

Jacket Material PE

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper

### Mechanical Specifications

Minimum Bend Radius, multiple Bends25.4 mm | 1 inMinimum Bend Radius, single Bend25.4 mm | 1 in

Number of Bends, minimum 15 Number of Bends, typical 20

 Tensile Strength
 68 kg | 149.914 lb

 Bending Moment
 0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 1.8 kg/mm | 100.795 lb/in

### **Environmental Specifications**

Installation temperature $-40 \,^{\circ}\text{C}$  to  $+60 \,^{\circ}\text{C}$  ( $-40 \,^{\circ}\text{F}$  to  $+140 \,^{\circ}\text{F}$ )Operating Temperature $-55 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  ( $-67 \,^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )Storage Temperature $-70 \,^{\circ}\text{C}$  to  $+85 \,^{\circ}\text{C}$  ( $-94 \,^{\circ}\text{F}$  to  $+185 \,^{\circ}\text{F}$ )

Attenuation, Ambient Temperature68 °F | 20 °CAverage Power, Ambient Temperature104 °F | 40 °CAverage Power, Inner Conductor Temperature212 °F | 100 °C

Packaging and Weights

**Cable weight** 0.07 kg/m | 0.047 lb/ft



## Regulatory Compliance/Certifications

Agency	Classification
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CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant
UK-ROHS Compliant
UL/ETL Certification Compliant







FSJ1-50A, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket, B2ca s1a d0 a1 Compliant

#### **Product Classification**

 Product Type
 Coaxial wireless cable

 Product Brand
 HELIAX® | SureFlex®

 Product Series
 FSJ1-50A | MLOC

General Specifications

**Flexibility** Superflexible

Jacket Color Black

**Performance Note**Attenuation values typical, guaranteed within 5%

**Dimensions** 

dc Test Voltage

Diameter Over Dielectric4.826 mm | 0.19 inDiameter Over Jacket7.62 mm | 0.3 inInner Conductor OD1.905 mm | 0.075 inOuter Conductor OD6.35 mm | 0.25 in

Nominal Size 1/4 in

**Electrical Specifications** 

**Cable Impedance** 50 ohm ±1 ohm

**Capacitance** 79.4 pF/m | 24.201 pF/ft

dc Resistance, Inner Conductor9.843 ohms/km | 3 ohms/kftdc Resistance, Outer Conductor7.216 ohms/km | 2.199 ohms/kft

1600 V

dc Resistance, Outer Conductor 7.216 ohms/km | 2.19

**Inductance** 0.2  $\mu$ H/m | 0.061  $\mu$ H/ft

**Insulation Resistance** 100000 MOhms-km

**Jacket Spark Test Voltage (rms)** 4000 ∨

Operating Frequency Band 1 – 18000 MHz

Peak Power 6.4 kW Velocity 82 %



## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680-960 MHz	1.201	20.79
1700-2200 MHz	1.201	20.79
2200-2700 MHz	1.433	14.99

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.577	0.176	6.4
1.5	0.707	0.215	6.4
2.0	0.816	0.249	6.4
10.0	1.833	0.559	3.99
20.0	2.6	0.792	2.81
30.0	3.192	0.973	2.29
50.0	4.136	1.261	1.77
85.0	5.419	1.652	1.35
88.0	5.516	1.681	1.33
100.0	5.889	1.795	1.24
108.0	6.125	1.867	1.19
150.0	7.25	2.21	1.01
174.0	7.825	2.385	0.93
200.0	8.408	2.563	0.87
204.0	8.495	2.589	0.86
300.0	10.373	3.162	0.71
400.0	12.051	3.673	0.61
450.0	12.817	3.906	0.57
460.0	12.965	3.952	0.56
500.0	13.545	4.128	0.54
512.0	13.715	4.18	0.53
600.0	14.909	4.544	0.49
700.0	16.175	4.93	0.45
800.0	17.362	5.292	0.42
824.0	17.637	5.376	0.41

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894.0	18.42	5.614	0.4
960.0	19.134	5.832	0.38
1000.0	19.556	5.96	0.37
1218.0	21.738	6.626	0.34
1250.0	22.044	6.719	0.33
1500.0	24.326	7.414	0.3
1700.0	26.038	7.936	0.28
1794.0	26.813	8.172	0.27
1800.0	26.862	8.187	0.27
2000.0	28.455	8.673	0.26
2100.0	29.227	8.908	0.25
2200.0	29.984	9.139	0.24
2300.0	30.727	9.365	0.24
2500.0	32.174	9.806	0.23
2700.0	33.576	10.233	0.22
3000.0	35.602	10.851	0.21
3400.0	38.183	11.638	0.19
3600.0	39.428	12.017	0.19
3700.0	40.041	12.204	0.18
3800.0	40.647	12.389	0.18
3900.0	41.247	12.571	0.18
4000.0	41.841	12.753	0.17
4100.0	42.429	12.932	0.17
4200.0	43.012	13.11	0.17
4300.0	43.59	13.286	0.17
4400.0	44.163	13.46	0.17
4500.0	44.73	13.633	0.16
4600.0	45.293	13.805	0.16
4700.0	45.852	13.975	0.16
4800.0	46.405	14.144	0.16
4900.0	46.955	14.311	0.16
5000.0	47.5	14.477	0.15
6000.0	52.747	16.077	0.14
8000.0	62.37	19.01	0.12
8800.0	65.974	20.108	0.11

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10000.0	71.173	21.693	0.1
12000.0	79.393	24.198	0.09
14000.0	87.172	26.569	0.08
15800.0	93.872	28.611	0.08
16000.0	94.601	28.833	0.08
18000.0	101.745	31.01	0.07

#### Material Specifications

**Dielectric Material** Foam PE

Jacket Material Non-halogenated, fire retardant polyolefin

Inner Conductor Material Copper-clad aluminum wire

Outer Conductor Material Corrugated copper

### Mechanical Specifications

Minimum Bend Radius, multiple Bends25.4 mm1 inMinimum Bend Radius, single Bend25.4 mm1 in

Number of Bends, minimum15Number of Bends, typical20

 Tensile Strength
 68 kg | 149.914 lb

 Bending Moment
 0.7 N-m | 6.196 in lb

Flat Plate Crush Strength 1.8 kg/mm | 100.795 lb/in

## **Environmental Specifications**

Installation temperature  $-40 \, ^{\circ}\text{C to } +60 \, ^{\circ}\text{C (-40 \, ^{\circ}\text{F to } +140 \, ^{\circ}\text{F})}$  Operating Temperature  $-40 \, ^{\circ}\text{C to } +60 \, ^{\circ}\text{C (-40 \, ^{\circ}\text{F to } +140 \, ^{\circ}\text{F})}$  Storage Temperature  $-40 \, ^{\circ}\text{C to } +60 \, ^{\circ}\text{C (-40 \, ^{\circ}\text{F to } +140 \, ^{\circ}\text{F})}$ 

Attenuation, Ambient Temperature68 °F | 20 °CAverage Power, Ambient Temperature104 °F | 40 °CAverage Power, Inner Conductor Temperature212 °F | 100 °C

EN50575 CPR Cable EuroClass Fire PerformanceB2caEN50575 CPR Cable EuroClass Smoke Ratings1aEN50575 CPR Cable EuroClass Droplets Ratingd0EN50575 CPR Cable EuroClass Acidity Ratinga1



Fire Retardancy Test Method | IEC 60332-1-2 | IEC 60332-3-24 | NFPA 130-2010 | UL 1666/CATVR

/CMR | UL 1685

Smoke Index Test Method IEC 61034

**Toxicity Index Test Method** IEC 60754-1 | IEC 60754-2

Packaging and Weights

**Cable weight** 0.07 kg/m | 0.047 lb/ft

#### Regulatory Compliance/Certifications

Agency Classification

CENELEC EN 50575 compliant, Declaration of Performance (DoP) available

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant
UK-ROHS Compliant
UL/ETL Certification Compliant



