F2A-HRHR-P

FSJ2-50 SureFlex® Jumper with interface types 4.3-10 Male Right Angle and 4.3-10 Male Right Angle, variable length



Product Classification

Product Type SureFlex® standard

Product Series FSJ2-50

General Specifications

Body Style, Connector ARight angleBody Style, Connector BRight angleInterface, Connector A4.3-10 MaleInterface, Connector B4.3-10 Male

Orientation 0°
Specification Sheet Revision Level A

Variable Length For custom lengths contact 828-324-2200 or 1-800-982-1708 (toll free), or your local

CommScope representative

Dimensions

Nominal Size 3/8 in

Electrical Specifications

3rd Order IMD -110 dBm

3rd Order IMD Test Method Two +43 dBm carriers

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
698-960 MHz	1.11	26.4
1700-2200 MHz	1.11	26.4
2200-2700 MHz	1.11	26.4



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F2A-HRHR-P

Jumper Assembly Sample Label



Environmental Specifications

Immersion Test Method Meets IEC 60529:2001, IP68 in mated condition

Included Products

F2HR-S2 - 4.3-10 Male Right Angle for 3/8 in foam and air coaxial cable, factory attached

FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE

jacket



F2HR-S2

4.3-10 Male Right Angle for 3/8 in foam and air coaxial cable, factory attached

Product Classification

Product TypeWireless and radiating connector

Product Brand HELIAX® | SureFlex®

General Specifications

Body Style Right angle

Inner Contact Attachment MethodSolderInner Contact PlatingSilver

Interface 4.3-10 Male

 Outer Contact Attachment Method
 Solder

 Outer Contact Plating
 Trimetal

Dimensions

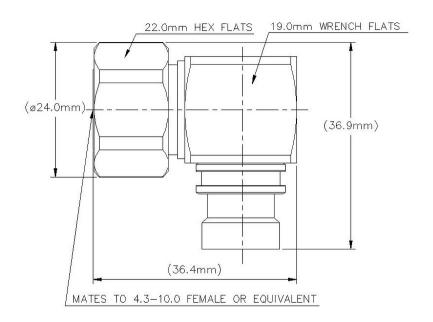
 Height
 34.29 mm
 | 1.35 in

 Width
 32.26 mm
 | 1.27 in

 Length
 23.88 mm
 | 0.94 in

Nominal Size 3/8 in

Outline Drawing



Electrical Specifications

3rd Order IMD at Frequency -119 dBm @ 910 MHz

3rd Order IMD Test Method Two +43 dBm carriers

0.05 dB Insertion Loss, typical

676.0 W @ 900 MHz **Average Power at Frequency**

Cable Impedance 50 ohm **Connector Impedance** 50 ohm

2300 V dc Test Voltage

Inner Contact Resistance, maximum 1 m0hm

Insulation Resistance, minimum **Operating Frequency Band** 0 - 6000 MHz

5000 MOhm

Outer Contact Resistance, maximum 1 m0hm

Peak Power, maximum 13.2 kW

RF Operating Voltage, maximum (vrms) 813 V

Shielding Effectiveness -110 dB

VSWR/Return Loss



F2HR-S2

Frequency Band	VSWR	Return Loss (dB)
0-960 MHz	1.04	35
1710-2200 MHz	1.05	33
2200-2700 MHz	1.07	30
2700-3000 MHz	1.07	30
3000-6000 MHz	1.23	20

Mechanical Specifications

Connector Retention Tensile Force671.68 N | 151 lbfConnector Retention Torque2.7 N-m | 23.897 in lbCoupling Nut Proof Torque8 N-m | 70.806 in lbCoupling Nut Retention Force449.98 N | 101.16 lbf

Interface Durability100 cyclesInterface Durability MethodIEC 61169-4:17Mechanical Shock Test MethodIEC 60068-2-27

Environmental Specifications

Operating Temperature $-55 \,^{\circ}\text{C}$ 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 Temperature20 °C | 68 °FAverage Power, Ambient Temperature40 °C | 104 °FAverage Power, Inner Conductor Temperature100 °C | 212 °FCorrosion Test MethodIEC 60068-2-11

Immersion Depth1 mImmersion Test MatingMated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test MethodIEC 60068-2-3Thermal Shock Test MethodIEC 60068-2-14Vibration Test MethodIEC 60068-2-6

Packaging and Weights

Weight, net 65.47 g | 0.144 lb

Regulatory Compliance/Certifications

COMMSCOPE®

F2HR-S2

Agency Classification

CHINA-ROHS Below maximum concentration value

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

ROHS Compliant



* Footnotes

Insertion Loss, typical 0.05v⁻freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours



FSJ2-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

Product Classification

 Product Type
 Coaxial wireless cable

 Product Brand
 HELIAX® | SureFlex®

Product Series FSJ2-50

General Specifications

Flexibility Superflexible

Jacket Color Black

Dimensions

 Diameter Over Dielectric
 7.112 mm | 0.28 in

 Diameter Over Jacket
 10.541 mm | 0.415 in

 Inner Conductor OD
 2.794 mm | 0.11 in

 Outer Conductor OD
 9.652 mm | 0.38 in

Nominal Size 3/8 in

Electrical Specifications

Cable Impedance 50 ohm ±1 ohm

Capacitance 79.7 pF/m | 24.293 pF/ft

dc Resistance, Inner Conductor4.232 ohms/km | 1.29 ohms/kftdc Resistance, Outer Conductor4.987 ohms/km | 1.52 ohms/kft

dc Test Voltage 2300 V

 $\label{eq:local_phi} \text{Inductance} \hspace{1.5cm} 0.2\,\mu\text{H/m} \hspace{0.2cm} \mid \hspace{0.2cm} 0.061\,\mu\text{H/ft}$

Insulation Resistance 100000 MOhms-km

Jacket Spark Test Voltage (rms) 4000 V

Operating Frequency Band 1 – 13400 MHz

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FSJ2-50

Peak Power13.2 kWVelocity83 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
2.5-2.7 GHz	1.11	26
680-800 MHz	1.11	26
800-960 MHz	1.11	26
1700-2200 MHz	1.1	26.45

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, minimum20Number of Bends, typical50

 Tensile Strength
 95 kg | 209.439 lb

 Bending Moment
 2.3 N-m | 20.357 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

COMMSCOPE®

FSJ2-50

Cable weight 0.12 kg/m | 0.081 lb/ft

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

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

ROHS Compliant



