F2A-HMHR-P-W1

Base Product



FSJ2-50 Jumper with interface types 4.3-10 Male and 4.3-10 Male Right Angle with HELIAX® SureGuard weatherproofing boot on straight end only, variable length

Product Classification

Product Type Wireless transmission cable assembly

Product Series FSJ2-50

General Specifications

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

Specification Sheet Revision Level A

Variable Length For custom lengths, contact your local ANDREW representative

Dimensions

Nominal Size 3/8 in

Electrical Specifications

3rd Order IMD Static -110 dBm

3rd Order IMD Static 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

Jumper Assembly Sample Label





Environmental Specifications

Immersion Test MethodMeets IEC 60529:2001, IP68 in mated condition

Weatherproofing Method HELIAX® SureGuard weatherproofing boot

Packaging and Weights

Included Weatherproofing boot

Included Products

F2HM-S2 - 4.3-10 Male for 3/8 in foam coaxial cable, factory attached

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



F2HM-S2

4.3-10 Male for 3/8 in foam coaxial cable, factory attached

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX® | SureFlex®

General Specifications

Body StyleStraightInner Contact Attachment MethodSolderInner Contact PlatingSilver

Interface 4.3-10 Male

 Outer Contact Attachment Method
 Solder

 Outer Contact Plating
 Trimetal

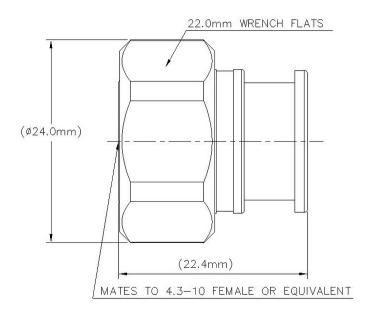
Dimensions

 Length
 25.91 mm | 1.02 in

 Diameter
 23.88 mm | 0.94 in

Nominal Size 3/8 in

Outline Drawing



Electrical Specifications

Inner Contact Resistance, maximum

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

3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Cable Impedance 50 ohm

Connector Impedance 50 ohm

dc Test Voltage 2300 V

Insulation Resistance, minimum 5000 MOhm

Operating Frequency Band 0 - 6000 MHz

Outer Contact Resistance, maximum 1 m0hm

Peak Power, maximum 13.2 kW

RF Operating Voltage, maximum (vrms) 813 V

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

0–3000 MHz 1.041 33.94



1 m0hm

F2HM-S2

3000–4000 MHz 1.065 30.04 **4000–6000 MHz** 1.119 25.01

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 Durability 100 cycles

Mechanical Shock Test Method IEC 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 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 32.3 g | 0.071 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



F2HM-S2

UK-ROHS

Compliant



* Footnotes

Insertion Loss Coefficient, typical 0.05√-freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours



F2HR-S2

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

Product Classification

Product Type Wireless 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

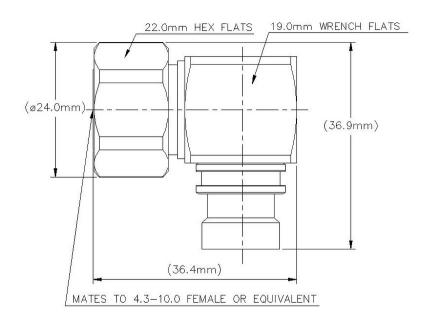
 Height
 34.29 mm | 1.35 in

 Width
 32.26 mm | 1.27 in

 Length
 23.88 mm | 0.94 in

Nominal Size 3/8 in

Outline Drawing



Electrical Specifications

Inner Contact Resistance, maximum

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

3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 676.0 W @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohm

dc Test Voltage 2300 V

Insulation Resistance, minimum 5000 MOhm

Operating Frequency Band 0 – 6000 MHz

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



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1 m0hm

F2HR-S2

Frequency Band	VSWR	Return Loss (dB)
0-960 MHz	1.036	35.05
1710-2200 MHz	1.046	32.96
2200-2700 MHz	1.065	30.04
2700-3000 MHz	1.065	30.04
3000-6000 MHz	1.222	20.01

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



F2HR-S2

Agency Classification

CHINA-ROHS Above maximum concentration value

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



* Footnotes

Insertion Loss Coefficient, typical 0.05√ 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

Product Number 887019902/00 | SZ887019902/00

Flexibility Superflexible

Jacket Color Black

Performance NoteAttenuation values typical, guaranteed within 5%

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 Impedance50 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

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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	1.106	25.96
680-800 MHz	1.106	25.96
800-960 MHz	1.106	25.96
1700-2200 MHz	1.101	26.36

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

Packaging and Weights



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 UK-ROHS Compliant

