F4A-PDMDF-4M

FSJ4-50B SureFlex® Jumper with interface types 7-16 DIN Male and 7-

Product Classification

Product Type SureFlex® standard

Product Brand HELIAX® | SureFlex®

Product Series FSJ4-50B

General Specifications

Body Style, Connector AStraightBody Style, Connector BStraight

Interface, Connector A7-16 DIN MaleInterface, Connector B7-16 DIN Female

Specification Sheet Revision Level A

Dimensions

Length 4 m | 13.123 ft

Nominal Size 1/2 in

Electrical Specifications

DTF, Connector A -32 dB

DTF, Connector B -32 dB

VSWR/Return Loss

Frequency Band VSWR, typical Return Loss, typical (dB)

0–3000 MHz 1.106 25.96 **2.2–2.7 GHz** 1.083 27.99

Jumper Assembly Sample Label





Environmental Specifications

Immersion Test Method

Meets IEC 60529:2001, IP68 in mated condition

Regulatory Compliance/Certifications

Agency Classification

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

Included Products

F4DR-C - 7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable
F4NR-HC - Type N Male Right Angle for 1/2 in FSJ4-50B cable

L4DR-PS - 7-16 DIN Male Right Angle Positive Stop™ for 1/2 in LDF4-50A

cable

L4NR-PS - Type N Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable



F4DR-C



7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX®

Product Series FSJ4-50B | FSJ4RK-50B

Ordering Note ANDREW® standard product (Global)

General Specifications

Body Style Right angle FSJ4-50B **Cable Family Inner Contact Attachment Method** Captivated **Inner Contact Plating** Gold | Silver Interface 7-16 DIN Male **Mounting Angle** Right angle Self-flare **Outer Contact Attachment Method Outer Contact Plating** Trimetal **Pressurizable** No

Dimensions

 Height
 42.42 mm
 | 1.67 in

 Width
 34.54 mm
 | 1.36 in

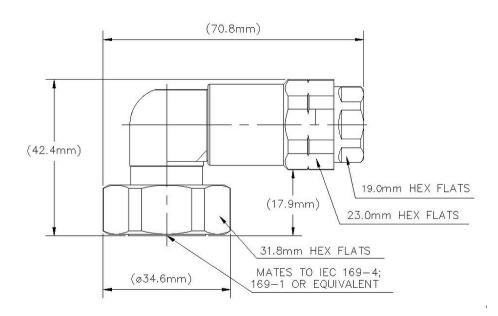
 Length
 70.87 mm
 | 2.79 in

 Right Angle Length
 18.03 mm
 | 0.71 in

Nominal Size 1/2 in

Outline Drawing





3rd Order IMD at Frequency -120 dBm @ 910 MHz

3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 1.0 kW @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum0.8 mOhm

Inner Contact Resistance, maximum0.8 m0hmInsulation Resistance, minimum5000 M0hm

Operating Frequency Band 0 - 7500 MHz

Outer Contact Resistance, maximum 1.5 mOhm

Peak Power, maximum 15.6 kW

RF Operating Voltage, maximum (vrms) $884\, \lor$

Shielding Effectiveness -110 dB

VSWR/Return Loss



F4DR-C

Frequency Band	VSWR	Return Loss (dB)
50-1000 MHz	1.04	34.16
1000-1900 MHz	1.04	34.16
1900-2200 MHz	1.07	29.42
2200-2700 MHz	1.1	26.45
2700-3600 MHz	1.13	24.29
3600-6000 MHz	1.25	19.09
6000-8800 MHz	1.67	12.01
8000-10200 MHz	1.67	12.01

Mechanical Specifications

Connector Retention Tensile Force 444.82 N | 100 lbf

Connector Retention Torque5.42 N-m | 47.998 in lbCoupling Nut Proof Torque24.86 N-m | 220.003 in lb

Coupling Nut Retention Force 1,000.85 N | 225 lbf

Coupling Nut Retention Force Method MIL-C-39012C-3.25, 4.6.22

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:9.5

Mechanical Shock Test MethodMIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature-55 °C to +85 °C (-67 °F to +185 °F)Storage Temperature-55 °C to +85 °C (-67 °F to +185 °F)

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

Corrosion Test Method MIL-STD-1344A, Method 1001.1, Test Condition A

Immersion Depth 1 m

Immersion Test Mating Unmated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test Method MIL-STD-202F, Method 106F

Thermal Shock Test Method MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Vibration Test Method MIL-STD-202F, Method 204D, Test Condition B

Water Jetting Test Mating Unmated



F4DR-C

Water Jetting Test Method

IEC 60529:2001, IP66

Packaging and Weights

Weight, net 197.2 g | 0.435 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

ROHS Compliant UK-ROHS Compliant



* Footnotes

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





Type N Male Right Angle for 1/2 in FSJ4-50B cable

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX®

Product Series FSJ4-50B | FSJ4RK-50B

Ordering Note ANDREW® standard product in Asia Pacific | ANDREW® standard product in

Europe, the Middle East, and Africa

General Specifications

Body StyleRight angleCable FamilyFSJ4-50BInner Contact Attachment MethodCaptivated

Inner Contact Plating Gold | Silver

Interface N Male

Mounting AngleRight angleOuter Contact Attachment MethodSelf-flareOuter Contact PlatingTrimetalPressurizableNo

Dimensions

 Height
 46.48 mm | 1.83 in

 Width
 24.38 mm | 0.96 in

 Length
 63.75 mm | 2.51 in

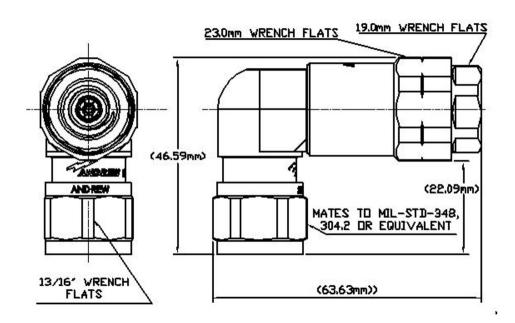
 Right Angle Length
 22.1 mm | 0.87 in

Nominal Size 1/2 in

Outline Drawing



Page 7 of 18



3rd Order IMD at Frequency -116 dBm @ 910 MHz

3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 0.6 kW @ 900 MHz

Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2000 VInner Contact Resistance, maximum2 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10200 MHz

Outer Contact Resistance, maximum0.3 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 VShielding Effectiveness-110 dB

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

50–1000 MHz 1.05 32.26



F4NR-HC

1000-1900 MHz	1.06	30.72
1900-2200 MHz	1.06	30.72
2200-2700 MHz	1.08	28.3
2700-3600 MHz	1.19	21.24
3600-6000 MHz	1.19	21.24
6000-8800 MHz	1.25	19.09
8800-10200 MHz	1.29	-18

Mechanical Specifications

Connector Retention Tensile Force444.82 N | 100 lbfConnector Retention Torque5.42 N-m | 47.998 in lbCoupling Nut Proof Torque4.52 N-m | 39.997 in lbCoupling Nut Retention Force444.82 N | 100 lbf

Coupling Nut Retention Force Method MIL-C-39012C-3.23, 4.6.22

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:9.5

Mechanical Shock Test Method MIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature-55 °C to +85 °C (-67 °F to +185 °F)Storage Temperature-55 °C to +85 °C (-67 °F to +185 °F)

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

Corrosion Test Method MIL-STD-1344A, Method 1001.1, Test Condition A

Immersion Depth 1 m

Immersion Test Mating Unmated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test Method MIL-STD-202F, Method 106F

Thermal Shock Test Method MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Vibration Test Method MIL-STD-202F, Method 204D, Test Condition B

Water Jetting Test Mating Unmated

Water Jetting Test Method IEC 60529:2001, IP66

Packaging and Weights

ANDREW® an Amphenol company

F4NR-HC

Weight, net 160.9 g | 0.355 lb

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

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

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



* Footnotes

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



L4DR-PS



7-16 DIN Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX®
Product Series LDF4-50A

Ordering Note ANDREW® standard product (Global)

General Specifications

Body Style Right angle LDF4-50A **Cable Family Inner Contact Attachment Method** Captivated **Inner Contact Plating** Gold | Silver 7-16 DIN Male Interface **Mounting Angle** Right angle **Outer Contact Attachment Method** Self-flare Trimetal **Outer Contact Plating Pressurizable** No

Dimensions

 Height
 41.91 mm | 1.65 in

 Width
 34.54 mm | 1.36 in

 Length
 82.55 mm | 3.25 in

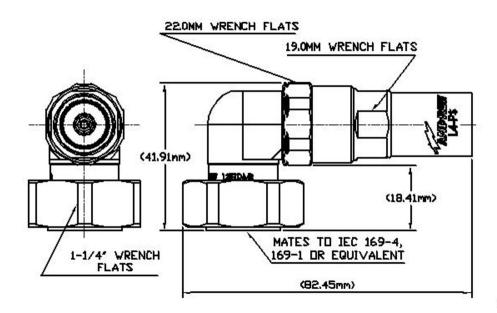
 Right Angle Length
 18.29 mm | 0.72 in

Nominal Size 1/2 in

Outline Drawing



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3rd Order IMD at Frequency -120 dBm @ 910 MHz
3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 1.0 kW @ 900 MHz

Cable Impedance 50 ohm **Connector Impedance** 50 ohm dc Test Voltage 2500 V Inner Contact Resistance, maximum 0.8 m0hm Insulation Resistance, minimum 5000 MOhm **Operating Frequency Band** 0 - 7500 MHz **Outer Contact Resistance, maximum** 1.5 m0hm Peak Power, maximum 15.6 kW RF Operating Voltage, maximum (vrms) 884 V **Shielding Effectiveness** -110 dB

VSWR/Return Loss

Frequency Band VSWR Return Loss (dB)

50–1000 MHz 1.018 41



L4DR-PS

1000-1900 MHz	1.03	36.61
1900-2200 MHz	1.058	31
2200-2700 MHz	1.07	29.42
2700-3600 MHz	1.09	27.32
3600-6000 MHz	1.19	21.24
6000-8800 MHz	1.671	12

Mechanical Specifications

Connector Retention Tensile Force 889.64 N | 200 lbf

Connector Retention Torque5.42 N-m | 47.998 in lbCoupling Nut Proof Torque24.86 N-m | 220.003 in lbCoupling Nut Retention Force1,000.85 N | 225 lbf

Coupling Nut Retention Force Method MIL-C-39012C-3.25, 4.6.22

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:9.5

Mechanical Shock Test Method MIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature-55 °C to +85 °C (-67 °F to +185 °F)Storage Temperature-55 °C to +85 °C (-67 °F to +185 °F)

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

Corrosion Test Method MIL-STD-1344A, Method 1001.1, Test Condition A

Immersion Depth 1 m

Immersion Test Mating Unmated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test Method MIL-STD-202F, Method 106F

Thermal Shock Test MethodMIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Vibration Test Method MIL-STD-202F, Method 204D, Test Condition B

Water Jetting Test Mating Unmated

Water Jetting Test Method IEC 60529:2001, IP66

Packaging and Weights



L4DR-PS

Weight, net 166.9 g | 0.368 lb

Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

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

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



* Footnotes

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



L4NR-PS



Type N Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable

Product Classification

Product Type Wireless and radiating connector

Product Brand HELIAX® | Positive Stop™

Product Series LDF4-50A

Ordering Note ANDREW® standard product (Global)

General Specifications

Body StyleRight angleCable FamilyLDF4-50AInner Contact Attachment MethodCaptivatedInner Contact PlatingGold | Silver

Interface N Male

Mounting AngleRight angleOuter Contact Attachment MethodSelf-flareOuter Contact PlatingTrimetalPressurizableNo

Dimensions

 Height
 45.97 mm
 | 1.81 in

 Width
 23.62 mm
 | 0.93 in

 Length
 75.18 mm
 | 2.96 in

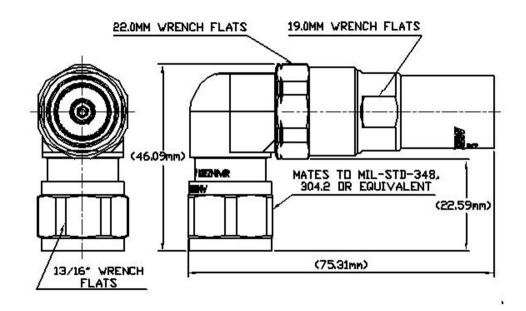
 Right Angle Length
 22.61 mm
 | 0.89 in

Nominal Size 1/2 in

Outline Drawing



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3rd Order IMD at Frequency -116 dBm @ 910 MHz
3rd Order IMD Test Method Two +43 dBm carriers

Insertion Loss Coefficient, typical 0.05

Average Power at Frequency 0.6 kW @ 900 MHz

Cable Impedance 50 ohm **Connector Impedance** 50 ohm 2000 V dc Test Voltage Inner Contact Resistance, maximum 2 m0hm Insulation Resistance, minimum 5000 MOhm **Operating Frequency Band** 0 - 8800 MHz **Outer Contact Resistance, maximum** 0.3 m0hm Peak Power, maximum 10 kW RF Operating Voltage, maximum (vrms) 707 V

VSWR/Return Loss

Shielding Effectiveness

Frequency Band VSWR Return Loss (dB)

50–1000 MHz 1.02 40.09

ANDREW® an Amphenol company

-110 dB

L4NR-PS

1000-1900 MHz	1.04	34.16
1900-2200 MHz	1.05	32.26
2200-2700 MHz	1.08	28.3
2700-3600 MHz	1.1	26.45
3600-6000 MHz	1.119	25.01
6000-8800 MHz	1.29	-18

Mechanical Specifications

Connector Retention Tensile Force 889.64 N | 200 lbf

Connector Retention Torque5.42 N-m47.998 in lbCoupling Nut Proof Torque4.52 N-m39.997 in lbCoupling Nut Retention Force444.82 N100 lbf

Coupling Nut Retention Force Method MIL-C-39012C-3.23, 4.6.22

Interface Durability 500 cycles

Interface Durability Method IEC 61169-4:9.5

Mechanical Shock Test Method MIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature-55 °C to +85 °C (-67 °F to +185 °F)Storage Temperature-55 °C to +85 °C (-67 °F to +185 °F)

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

Corrosion Test Method MIL-STD-1344A, Method 1001.1, Test Condition A

Immersion Depth 1 m

Immersion Test Mating Unmated

Immersion Test Method IEC 60529:2001, IP68

Moisture Resistance Test Method MIL-STD-202F, Method 106F

Thermal Shock Test Method MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C

Vibration Test Method MIL-STD-202F, Method 204D, Test Condition B

Water Jetting Test Mating Unmated

Water Jetting Test Method IEC 60529:2001, IP66

Packaging and Weights



L4NR-PS

Weight, net 133.1 g | 0.293 lb

Regulatory Compliance/Certifications

Agency Classification

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

* Footnotes

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

