

F1R-NFQM-1M5

FSJ1RK-50B SureFlex® Jumper with interface types N Female and QMA

 Male, 1.5 M

Product Classification

Product Type	SureFlex® standard
Product Brand	HELIAX® SureFlex®
Product Series	FSJ1-50B

General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Straight
Interface, Connector A	N Female
Interface, Connector B	QMA Male
Specification Sheet Revision Level	A

Dimensions

Length	1.5 m 4.921 ft
Nominal Size	1/4 in

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
700–3000 MHz	1.288	18

Jumper Assembly Sample Label

F1R-NFQM-1M5



Environmental Specifications

EN50575 CPR Cable EuroClass Fire Performance	B2ca
EN50575 CPR Cable EuroClass Smoke Rating	s1a
EN50575 CPR Cable EuroClass Droplets Rating	d0
EN50575 CPR Cable EuroClass Acidity Rating	a1
Immersion Test Method	Meets IEC 60529:2001, IP68 in mated condition

Included Products

- F1TNF-LS – Type N Female for 1/4 in foam and air coaxial cable, factory attached
- F1TQM-LS – QMA Male for HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket, factory attached

F1TNF-LS



Type N Female for 1/4 in foam and air coaxial cable, factory attached

Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX® SureFlex®

General Specifications

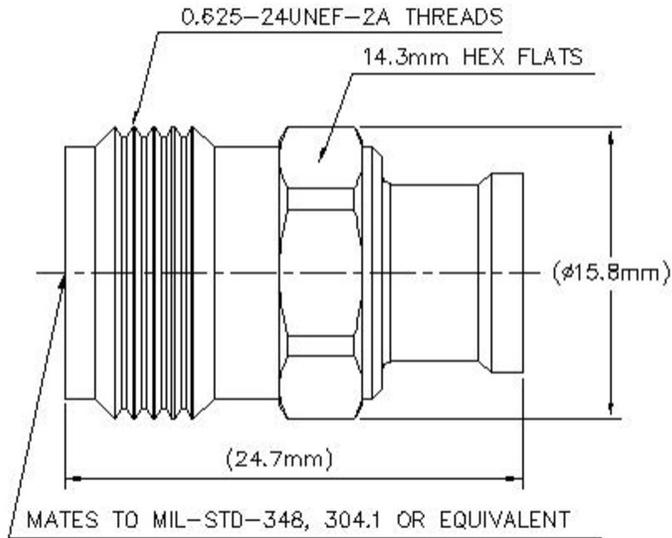
Body Style	Straight
Cable Family	FSJ1-50A
Inner Contact Attachment Method	Solder
Inner Contact Plating	Silver
Interface	N Female
Mounting Angle	Straight
Outer Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Length	24.64 mm 0.97 in
Diameter	15.75 mm 0.62 in
Nominal Size	1/4 in

F1TNEF-LS

Outline Drawing



Electrical Specifications

3rd Order IMD at Frequency	-110 dBm @ 910 MHz
3rd Order IMD Test Method	Two +43 dBm carriers
Insertion Loss Coefficient, typical	0.05
Average Power at Frequency	0.4 kW @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1600 V
Inner Contact Resistance, maximum	1 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	0.25 mOhm
Peak Power, maximum	6.4 kW
RF Operating Voltage, maximum (vrms)	565 V
Shielding Effectiveness	-110 dB

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
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F1TNE-LS

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	1.152	23.02

Mechanical Specifications

Connector Retention Tensile Force	449.27 N 101 lbf
Connector Retention Torque	1.4 N-m 12.356 in lb
Coupling Nut Proof Torque	1.7 N-m 15.002 in lb
Coupling Nut Proof Torque Method	IEC 61169-16:9.3.11
Coupling Nut Retention Force	445 N 100.04 lbf
Coupling Nut Retention Force Method	IEC 61169-15:9.3.11
Insertion Force	124.55 N 28 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:17
Mechanical Shock Test Method	IEC 60068-2-27

Environmental Specifications

Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F
Corrosion Test Method	IEC 60068-2-11
Immersion Depth	1 m
Immersion Test Mating	Mated
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

F1TNE-LS

Packaging and Weights

Weight, net 18.33 g | 0.04 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
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)

Immersion Depth Immersion at specified depth for 24 hours

F1TQM-LS

QMA Male for HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated, fire retardant polyolefin jacket, factory attached

Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX® SureFlex®

General Specifications

Body Style	Straight
Inner Contact Attachment Method	Solder
Inner Contact Plating	Gold
Interface	QMA Male
Outer Contact Attachment Method	Solder
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Length	23.11 mm 0.91 in
Diameter	10.92 mm 0.43 in
Nominal Size	1/4 in

Electrical Specifications

3rd Order IMD at Frequency	-100 dBm @ 1800 MHz
Insertion Loss Coefficient, typical	0.05
Average Power at Frequency	0.4 kW @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
dc Test Voltage	1000 V
Inner Contact Resistance, maximum	3 mOhm
Insulation Resistance, minimum	5000 MOhm
Operating Frequency Band	0 – 6000 MHz
Outer Contact Resistance, maximum	2.5 mOhm
Peak Power, maximum	5 kW

F1TQM-LS

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

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
824–2200 MHz	1.05	33.2
2200–4000 MHz	1.05	32.26
4000–6000 MHz	1.1	26.45

Mechanical Specifications

Connector Retention Tensile Force	57.83 N 13 lbf
Connector Retention Torque	1.4 N-m 12.391 in lb
Insertion Force	97.86 N 22 lbf
Insertion Force Method	IEC 61169-15:9.3.5
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-4:17
Mechanical Shock Test Method	IEC 60068-2-27

Environmental Specifications

Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
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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	7.59 g 0.017 lb
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Regulatory Compliance/Certifications

Agency	Classification
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F1TQM-LS

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



* Footnotes

Insertion Loss Coefficient, typical $0.05\sqrt{\text{freq (GHz)}}$ (not applicable for elliptical waveguide)