

# F2RNA-PNMNM-M5

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FSJ2RK-50 SureFlex® Jumper with interface types N Male and N Male,  
0.5 m



## Product Classification

<b>Product Type</b>	Wireless transmission cable assembly
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	FSJ2-50

## General Specifications

<b>Body Style, Connector A</b>	Straight
<b>Body Style, Connector B</b>	Straight
<b>Interface, Connector A</b>	N Male
<b>Interface, Connector B</b>	N Male
<b>Specification Sheet Revision Level</b>	A

## Dimensions

<b>Length</b>	0.5 m   1.64 ft
<b>Nominal Size</b>	3/8 in

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
700–3000 MHz	1.222	20.01

## Jumper Assembly Sample Label

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## Environmental Specifications

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

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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 <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## Included Products

- 35422-48 – Heat Treated FSJ2RK-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket
- FSJ2RK-50 – FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-

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halogenated, fire retardant polyolefin jacket B2ca s1a d0 a1 Compliant



# 35422-48



Heat Treated FSJ2RK-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	FSJ2-50

## General Specifications

<b>Flexibility</b>	Superflexible
<b>Jacket Color</b>	Black
<b>Performance Note</b>	Attenuation values typical, guaranteed within 5%

## Dimensions

<b>Diameter Over Dielectric</b>	7.112 mm   0.28 in
<b>Diameter Over Jacket</b>	10.922 mm   0.43 in
<b>Inner Conductor OD</b>	2.794 mm   0.11 in
<b>Outer Conductor OD</b>	9.652 mm   0.38 in
<b>Nominal Size</b>	3/8 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	80 pF/m   24.384 pF/ft
<b>dc Resistance, Inner Conductor</b>	4.232 ohms/km   1.29 ohms/kft
<b>dc Resistance, Outer Conductor</b>	4.987 ohms/km   1.52 ohms/kft
<b>dc Test Voltage</b>	2300 V
<b>Inductance</b>	0.2 µH/m   0.061 µH/ft
<b>Insulation Resistance</b>	100000 MOhms-km
<b>Jacket Spark Test Voltage (rms)</b>	4000 V
<b>Operating Frequency Band</b>	1 – 13400 MHz
<b>Peak Power</b>	13.2 kW

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Velocity

83 %

## 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	0.383	0.117	13.2
1.5	0.469	0.143	13.2
2.0	0.542	0.165	13.2
10.0	1.219	0.372	6.97
20.0	1.732	0.528	4.91
30.0	2.128	0.649	3.99
50.0	2.762	0.842	3.08
85.0	3.626	1.105	2.34
88.0	3.691	1.125	2.3
100.0	3.943	1.202	2.16
108.0	4.103	1.25	2.07
150.0	4.864	1.482	1.75
174.0	5.254	1.601	1.62
200.0	5.65	1.722	1.5
204.0	5.709	1.74	1.49
300.0	6.99	2.13	1.22
400.0	8.139	2.481	1.04
450.0	8.665	2.641	0.98
460.0	8.767	2.672	0.97
500.0	9.166	2.794	0.93
512.0	9.283	2.829	0.92
600.0	10.107	3.081	0.84
700.0	10.983	3.347	0.77
800.0	11.807	3.599	0.72
824.0	11.998	3.657	0.71

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<b>894.0</b>	12.542	3.823	0.68
<b>960.0</b>	13.04	3.974	0.65
<b>1000.0</b>	13.334	4.064	0.64
<b>1218.0</b>	14.861	4.529	0.57
<b>1250.0</b>	15.075	4.595	0.56
<b>1500.0</b>	16.68	5.084	0.51
<b>1700.0</b>	17.887	5.452	0.48
<b>1794.0</b>	18.436	5.619	0.46
<b>1800.0</b>	18.47	5.629	0.46
<b>2000.0</b>	19.599	5.974	0.43
<b>2100.0</b>	20.147	6.141	0.42
<b>2200.0</b>	20.685	6.305	0.41
<b>2300.0</b>	21.214	6.466	0.4
<b>2500.0</b>	22.247	6.781	0.38
<b>2700.0</b>	23.249	7.086	0.37
<b>3000.0</b>	24.701	7.529	0.34
<b>3400.0</b>	26.558	8.094	0.32
<b>3600.0</b>	27.456	8.368	0.31
<b>3700.0</b>	27.899	8.503	0.3
<b>3800.0</b>	28.337	8.637	0.3
<b>3900.0</b>	28.771	8.769	0.3
<b>4000.0</b>	29.201	8.9	0.29
<b>4100.0</b>	29.628	9.03	0.29
<b>4200.0</b>	30.051	9.159	0.28
<b>4300.0</b>	30.47	9.287	0.28
<b>4400.0</b>	30.886	9.414	0.28
<b>4500.0</b>	31.298	9.539	0.27
<b>4600.0</b>	31.708	9.664	0.27
<b>4700.0</b>	32.114	9.788	0.26
<b>4800.0</b>	32.518	9.911	0.26
<b>4900.0</b>	32.919	10.033	0.26
<b>5000.0</b>	33.316	10.154	0.26
<b>6000.0</b>	37.158	11.325	0.23
<b>8000.0</b>	44.264	13.491	0.19
<b>8800.0</b>	46.943	14.308	0.18

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<b>10000.0</b>	50.826	15.491	0.17
<b>12000.0</b>	57.001	17.373	0.15

## Material Specifications

<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
<b>Inner Conductor Material</b>	Copper-clad aluminum wire
<b>Outer Conductor Material</b>	Corrugated copper

## Mechanical Specifications

<b>Minimum Bend Radius, multiple Bends</b>	25.4 mm   1 in
<b>Minimum Bend Radius, single Bend</b>	25.4 mm   1 in
<b>Number of Bends, minimum</b>	30
<b>Number of Bends, typical</b>	50
<b>Tensile Strength</b>	95 kg   209.439 lb
<b>Bending Moment</b>	2.3 N-m   20.357 in lb
<b>Flat Plate Crush Strength</b>	1.8 kg/mm   100.795 lb/in

## Environmental Specifications

<b>Installation temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>Fire Retardancy Test Method</b>	NFPA 130-2010   UL 1666/CATVR
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Packaging and Weights

<b>Cable weight</b>	0.13 kg/m   0.087 lb/ft
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## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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# FSJ2RK-50



FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black non-halogenated, fire retardant polyolefin jacket B2ca s1a d0 a1 Compliant

## Product Classification

<b>Product Type</b>	Coaxial wireless cable
<b>Product Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	FSJ2-50

## General Specifications

<b>Product Number</b>	520102002/00   SZ520102002/00
<b>Flexibility</b>	Superflexible
<b>Jacket Color</b>	Black
<b>Performance Note</b>	Attenuation values typical, guaranteed within 5%

## Dimensions

<b>Diameter Over Dielectric</b>	7.112 mm   0.28 in
<b>Diameter Over Jacket</b>	10.922 mm   0.43 in
<b>Inner Conductor OD</b>	2.794 mm   0.11 in
<b>Outer Conductor OD</b>	9.652 mm   0.38 in
<b>Nominal Size</b>	3/8 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm ±1 ohm
<b>Capacitance</b>	80 pF/m   24.384 pF/ft
<b>dc Resistance, Inner Conductor</b>	4.232 ohms/km   1.29 ohms/kft
<b>dc Resistance, Outer Conductor</b>	4.987 ohms/km   1.52 ohms/kft
<b>dc Test Voltage</b>	2300 V
<b>Inductance</b>	0.2 µH/m   0.061 µH/ft
<b>Insulation Resistance</b>	100000 MOhms-km
<b>Jacket Spark Test Voltage (rms)</b>	4000 V
<b>Operating Frequency Band</b>	1 – 13400 MHz

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**Peak Power** 13.2 kW

**Velocity** 83 %

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
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<b>8000.0</b>	44.264	13.491	0.19

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<b>10000.0</b>	50.826	15.491	0.17
<b>12000.0</b>	57.001	17.373	0.15

## Material Specifications

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<b>Jacket Material</b>	Non-halogenated, fire retardant polyolefin
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<b>Outer Conductor Material</b>	Corrugated copper

## Mechanical Specifications

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<b>Number of Bends, minimum</b>	30
<b>Number of Bends, typical</b>	50
<b>Tensile Strength</b>	95 kg   209.439 lb
<b>Bending Moment</b>	2.3 N-m   20.357 in lb
<b>Flat Plate Crush Strength</b>	1.8 kg/mm   100.795 lb/in

## Environmental Specifications

<b>Installation temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Storage Temperature</b>	-40 °C to +60 °C (-40 °F to +140 °F)
<b>Attenuation, Ambient Temperature</b>	68 °F   20 °C
<b>Average Power, Ambient Temperature</b>	104 °F   40 °C
<b>Average Power, Inner Conductor Temperature</b>	212 °F   100 °C
<b>EN50575 CPR Cable EuroClass Fire Performance</b>	B2ca
<b>EN50575 CPR Cable EuroClass Smoke Rating</b>	s1a
<b>EN50575 CPR Cable EuroClass Droplets Rating</b>	d0
<b>EN50575 CPR Cable EuroClass Acidity Rating</b>	a1
<b>Fire Retardancy Test Method</b>	IEC 60332-1-2   IEC 60332-3-24   NFPA 130-2010   UL 1666/CATVR /CMR   UL 1685
<b>Smoke Index Test Method</b>	IEC 61034
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

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## Packaging and Weights

### Cable weight

0.13 kg/m | 0.087 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](http://www.andrew.com/ProductCompliance)

ROHS

Compliant

UK-ROHS

Compliant

