



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

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<b>Jacket Spark Test Voltage (rms)</b>	4000 V
<b>Operating Frequency Band</b>	1 – 13400 MHz
<b>Peak Power</b>	13.2 kW
<b>Velocity</b>	83 %

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
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
894.0	12.542	3.823	0.68
960.0	13.04	3.974	0.65
1000.0	13.334	4.064	0.64

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<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
<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>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>	1 in   25.4 mm
<b>Minimum Bend Radius, single Bend</b>	1 in   25.4 mm
<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>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

