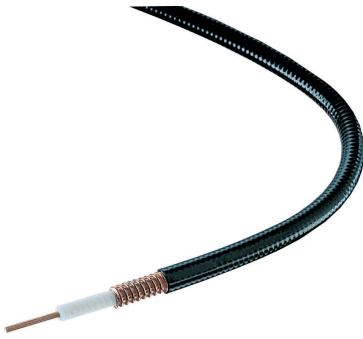


# FSJ2-50

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FSJ2-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 3/8 in, black PE 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>Product Number</b>	887019902/00   SZ887019902/00
<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>	10.541 mm   0.415 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>	79.7 pF/m   24.293 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

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<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
<b>Velocity</b>	83 %

## VSWR/Return Loss

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>2.5–2.7 GHz</b>	1.106	25.96
<b>680–800 MHz</b>	1.106	25.96
<b>800–960 MHz</b>	1.106	25.96
<b>1700–2200 MHz</b>	1.101	26.36

## Attenuation

<b>Frequency (MHz)</b>	<b>Attenuation (dB/100 m)</b>	<b>Attenuation (dB/100 ft)</b>	<b>Average Power (kW)</b>
<b>1.0</b>	0.383	0.117	13.2
<b>1.5</b>	0.469	0.143	13.2
<b>2.0</b>	0.542	0.165	13.2
<b>10.0</b>	1.219	0.372	6.97
<b>20.0</b>	1.732	0.528	4.91
<b>30.0</b>	2.128	0.649	3.99
<b>50.0</b>	2.762	0.842	3.08
<b>85.0</b>	3.626	1.105	2.34
<b>88.0</b>	3.691	1.125	2.3
<b>100.0</b>	3.943	1.202	2.16
<b>108.0</b>	4.103	1.25	2.07
<b>150.0</b>	4.864	1.482	1.75
<b>174.0</b>	5.254	1.601	1.62
<b>200.0</b>	5.65	1.722	1.5
<b>204.0</b>	5.709	1.74	1.49
<b>300.0</b>	6.99	2.13	1.22
<b>400.0</b>	8.139	2.481	1.04
<b>450.0</b>	8.665	2.641	0.98
<b>460.0</b>	8.767	2.672	0.97
<b>500.0</b>	9.166	2.794	0.93

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<b>512.0</b>	9.283	2.829	0.92
<b>600.0</b>	10.107	3.081	0.84
<b>700.0</b>	10.983	3.347	0.77
<b>800.0</b>	11.807	3.599	0.72
<b>824.0</b>	11.998	3.657	0.71
<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

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<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

<b>Dielectric Material</b>	Foam PE
<b>Jacket Material</b>	PE
<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>	20
<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>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-70 °C to +85 °C (-94 °F to +185 °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

## Packaging and Weights

<b>Cable weight</b>	0.12 kg/m   0.081 lb/ft
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## 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

