

# FSJ057RN-50



FSJ057-50, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 5.7 mm, gray non-halogenated, fire retardant polyolefin jacket

## Product Classification

<b>Brand</b>	HELIAX®   SureFlex®
<b>Product Series</b>	FSJ057-50
<b>Product Type</b>	Coaxial wireless cable

## Construction Materials

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

## Dimensions

<b>Nominal Size</b>	5.7 mm
<b>Cable Weight</b>	0.04 lb/ft   0.60 kg/m
<b>Diameter Over Dielectric</b>	4.064 mm   0.160 in
<b>Diameter Over Jacket</b>	6.858 mm   0.270 in
<b>Inner Conductor OD</b>	1.5240 mm   0.0600 in
<b>Outer Conductor OD</b>	5.842 mm   0.230 in

## Electrical Specifications

<b>Cable Impedance</b>	50 ohm $\pm$ 1 ohm
<b>Capacitance</b>	25.7 pF/ft   84.3 pF/m
<b>dc Resistance, Inner Conductor</b>	4.250 ohms/kft   13.944 ohms/km
<b>dc Resistance, Outer Conductor</b>	3.000 ohms/kft   9.843 ohms/km
<b>dc Test Voltage</b>	1500 V
<b>Inductance</b>	0.197 $\mu$ H/m   0.060 $\mu$ H/ft
<b>Insulation Resistance</b>	100000 Mohms•km
<b>Jacket Spark Test Voltage (rms)</b>	4000 V

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<b>Operating Frequency Band</b>	1 – 18000 MHz
<b>Peak Power</b>	5.6 kW
<b>Velocity</b>	78 %

## Environmental Specifications

<b>Installation Temperature</b>	-25 °C to +60 °C (-13 °F to +140 °F)
<b>Operating Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)
<b>Storage Temperature</b>	-30 °C to +80 °C (-22 °F to +176 °F)

## Mechanical Specifications

<b>Bending Moment</b>	1.4 N-m   1.0 ft lb
<b>Fire Retardancy Test Method</b>	UL 1666/CATVR
<b>Flat Plate Crush Strength</b>	35.0 lb/in   0.6 kg/mm
<b>Minimum Bend Radius, Multiple Bends</b>	12.70 mm   0.50 in
<b>Minimum Bend Radius, Single Bend</b>	6.35 mm   0.25 in
<b>Number of Bends, minimum</b>	15
<b>Number of Bends, typical</b>	20
<b>Smoke Index Test Method</b>	IEC 61034
<b>Tensile Strength</b>	14 kg   30 lb
<b>Toxicity Index Test Method</b>	IEC 60754-1   IEC 60754-2

## Note

<b>Performance Note</b>	Values typical, unless otherwise stated
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## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.507	0.154	5.60
1	0.717	0.219	5.60
1.5	0.879	0.268	5.60
2	1.016	0.31	5.60
10	2.282	0.696	2.95
20	3.239	0.987	2.08
30	3.979	1.213	1.69
50	5.159	1.572	1.30
85	6.767	2.063	0.99
88	6.889	2.1	0.98
100	7.356	2.242	0.91
108	7.653	2.332	0.88
150	9.065	2.763	0.74
174	9.789	2.983	0.69
200	10.522	3.207	0.64
204	10.631	3.24	0.63
300	12.999	3.962	0.52
400	15.119	4.608	0.44
450	16.088	4.903	0.42
460	16.276	4.961	0.41
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500	17.011	5.185	0.40
512	17.226	5.25	0.39
600	18.741	5.712	0.36
700	20.348	6.202	0.33
800	21.858	6.662	0.31
824	22.208	6.769	0.30
894	23.205	7.072	0.29
960	24.114	7.35	0.28
1000	24.653	7.514	0.27
1218	27.44	8.363	0.25
1250	27.831	8.482	0.24
1500	30.753	9.373	0.22
1700	32.949	10.042	0.20
1794	33.945	10.346	0.20
1800	34.007	10.365	0.20
2000	36.056	10.989	0.19
2100	37.049	11.292	0.18
2200	38.024	11.589	0.18
2300	38.981	11.881	0.17
2500	40.848	12.45	0.16
2700	42.658	13.002	0.16
3000	45.279	13.8	0.15
3400	48.623	14.819	0.14
3600	50.239	15.312	0.13

3700	51.034	15.554	0.13
3800	51.822	15.794	0.13
3900	52.601	16.032	0.13
4000	53.374	16.268	0.13
4100	54.139	16.501	0.12
4200	54.898	16.732	0.12
4300	55.65	16.961	0.12
4400	56.395	17.188	0.12
4500	57.135	17.414	0.12
4600	57.869	17.637	0.12
4700	58.596	17.859	0.11
4800	59.319	18.079	0.11
4900	60.036	18.298	0.11
5000	60.747	18.515	0.11
6000	67.609	20.606	0.10
8000	80.248	24.459	0.08
8800	84.998	25.906	0.08
10000	91.868	28	0.07
12000	102.763	31.321	0.07
14000	113.11	34.474	0.06
15800	122.047	37.198	0.06
16000	123.021	37.495	0.05
18000	132.578	40.408	0.05

\* Values typical, guaranteed within 5%

## Regulatory Compliance/Certifications

### Agency

UL/ETL Certification

### Classification

CATVP and CATVR

