

FSJ057RN-50



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

OBSOLETE

This product was discontinued on: January 27, 2011

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX® SureFlex®
Product Series	FSJ057-50

General Specifications

Flexibility	Superflexible
Jacket Color	Gray
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Dielectric	4.064 mm 0.16 in
Diameter Over Jacket	6.858 mm 0.27 in
Inner Conductor OD	1.524 mm 0.06 in
Outer Conductor OD	5.842 mm 0.23 in
Nominal Size	5.7 mm

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	84.3 pF/m 25.695 pF/ft
dc Resistance, Inner Conductor	13.944 ohms/km 4.25 ohms/kft
dc Resistance, Outer Conductor	9.843 ohms/km 3 ohms/kft

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dc Test Voltage	1500 V
Inductance	0.197 μ H/m 0.06 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	4000 V
Operating Frequency Band	1 – 18000 MHz
Peak Power	5.6 kW
Velocity	78 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.717	0.219	5.6
1.5	0.879	0.268	5.6
2.0	1.016	0.31	5.6
10.0	2.282	0.696	2.95
20.0	3.239	0.987	2.08
30.0	3.979	1.213	1.69
50.0	5.159	1.572	1.3
85.0	6.767	2.063	0.99
88.0	6.889	2.1	0.98
100.0	7.356	2.242	0.91
108.0	7.653	2.332	0.88
150.0	9.065	2.763	0.74
174.0	9.789	2.983	0.69
200.0	10.522	3.207	0.64
204.0	10.631	3.24	0.63
300.0	12.999	3.962	0.52
400.0	15.119	4.608	0.44
450.0	16.088	4.903	0.42
460.0	16.276	4.961	0.41
500.0	17.011	5.185	0.4
512.0	17.226	5.25	0.39
600.0	18.741	5.712	0.36
700.0	20.348	6.202	0.33
800.0	21.858	6.662	0.31
824.0	22.208	6.769	0.3

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894.0	23.205	7.072	0.29
960.0	24.114	7.35	0.28
1000.0	24.653	7.514	0.27
1218.0	27.44	8.363	0.25
1250.0	27.831	8.482	0.24
1500.0	30.753	9.373	0.22
1700.0	32.949	10.042	0.2
1794.0	33.945	10.346	0.2
1800.0	34.007	10.365	0.2
2000.0	36.056	10.989	0.19
2100.0	37.049	11.292	0.18
2200.0	38.024	11.589	0.18
2300.0	38.981	11.881	0.17
2500.0	40.848	12.45	0.16
2700.0	42.658	13.002	0.16
3000.0	45.279	13.8	0.15
3400.0	48.623	14.819	0.14
3600.0	50.239	15.312	0.13
3700.0	51.034	15.554	0.13
3800.0	51.821	15.794	0.13
3900.0	52.601	16.032	0.13
4000.0	53.374	16.268	0.13
4100.0	54.139	16.501	0.12
4200.0	54.898	16.732	0.12
4300.0	55.65	16.961	0.12
4400.0	56.395	17.188	0.12
4500.0	57.135	17.414	0.12
4600.0	57.869	17.637	0.12
4700.0	58.596	17.859	0.11
4800.0	59.319	18.079	0.11
4900.0	60.036	18.298	0.11
5000.0	60.747	18.515	0.11
6000.0	67.609	20.606	0.1
8000.0	80.248	24.459	0.08
8800.0	84.998	25.906	0.08

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10000.0	91.868	28	0.07
12000.0	102.763	31.321	0.07
14000.0	113.11	34.474	0.06
15800.0	122.047	37.198	0.06
16000.0	123.021	37.495	0.05
18000.0	132.578	40.408	0.05

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	12.7 mm 0.5 in
Minimum Bend Radius, single Bend	6.35 mm 0.25 in
Number of Bends, minimum	15
Number of Bends, typical	20
Tensile Strength	14 kg 30.865 lb
Bending Moment	1.4 N-m 12.391 in lb
Flat Plate Crush Strength	0.6 kg/mm 33.598 lb/in

Environmental Specifications

Installation temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Operating Temperature	-30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature	-30 °C to +80 °C (-22 °F to +176 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C
Fire Retardancy Test Method	UL 1666/CATVR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Packaging and Weights

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Cable weight

0.6 kg/m | 0.403 lb/ft

Regulatory Compliance/Certifications

Agency

Classification

UL/ETL Certification

CATVP and CATVR

