

Product Specifications



FSJ4RN-50B

FSJ4-50B, HELIAX® Superflexible Foam Coaxial Cable, corrugated copper, 1/2 in, gray non-halogenated, fire retardant polyolefin jacket



CHARACTERISTICS

Construction Materials

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

Dimensions

Nominal Size	1/2 in
Cable Weight	0.15 lb/ft
Diameter Over Dielectric	0.360 in 9.144 mm
Diameter Over Jacket	0.530 in 13.462 mm
Inner Conductor OD	0.140 in 3.556 mm
Outer Conductor OD	0.480 in 12.192 mm

Electrical Specifications

Cable Impedance	50 ohm $\pm$ 1 ohm
Capacitance	25 pF/ft 8268 pF/m
dc Resistance, Inner Conductor	0.820 ohms/kft
dc Resistance, Outer Conductor	1.000 ohms/kft
dc Test Voltage	5000 V
Inductance	0.063 μ H/ft 0.207 μ H/m
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	4000 V
Operating Frequency Band	1 – 10200 MHz
Peak Power	15.6 kW
Pulse Reflection	1%
Velocity	81%

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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)

Mechanical Specifications

Bending Moment	2.0 ft lb 2.7 N·m
Flat Plate Crush Strength	110.0 lb/in
Minimum Bend Radius, Multiple Bends	1.25 in 31.75 mm
Minimum Bend Radius, Single Bend	1.30 in 33.02 mm
Number of Bends, minimum	30
Number of Bends, typical	50
Tensile Strength	175 lb 79 kg

Standard Conditions

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

Attenuation

Frequency (MHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)
0.5	0.07	0.231	15.60
1	0.1	0.327	15.60
1.5	0.122	0.401	15.60
2	0.141	0.463	15.60
10	0.318	1.044	10.12
20	0.453	1.485	7.11
30	0.557	1.828	5.78
50	0.724	2.377	4.44
88	0.971	3.187	3.32
100	1.038	3.406	3.10
108	1.081	3.546	2.98
150	1.285	4.214	2.51
174	1.389	4.558	2.32
200	1.496	4.908	2.15
300	1.858	6.095	1.73
400	2.17	7.121	1.48
450	2.314	7.592	1.39
500	2.451	8.042	1.31
512	2.483	8.148	1.30
600	2.71	8.891	1.19
700	2.951	9.683	1.09
800	3.179	10.431	1.01
824	3.232	10.605	1.00

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894	3.383	11.101	0.95
960	3.522	11.555	0.91
1000	3.604	11.824	0.89
1250	4.091	13.423	0.79
1500	4.543	14.906	0.71
1700	4.885	16.027	0.66
1800	5.05	16.57	0.64
2000	5.371	17.624	0.60
2100	5.528	18.137	0.58
2200	5.682	18.641	0.57
2300	5.833	19.138	0.55
2500	6.129	20.11	0.53
2700	6.418	21.056	0.50
3000	6.837	22.432	0.47
3400	7.375	24.198	0.44
4000	8.146	26.727	0.40
5000	9.355	30.693	0.34
6000	10.493	34.427	0.31
8000	12.619	41.403	0.26
10000	14.604	47.914	0.22

Regulatory Compliance/Certifications

Agency

UL/ETL Certification
RoHS 2002/95/EC

Classification

CATVR
Compliant