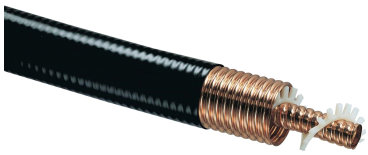
HJ9-50



HJ9-50, HELIAX® Standard Air Dielectric Coaxial Cable, corrugated copper, 5 in, black PE jacket

Product Classification

Brand	HELIAX®
Product Series	HJ9-50
Product Type	Air coaxial cable

Construction Materials

Jacket Material	PE
Dielectric Material	PE
Flexibility	Standard
Inner Conductor Material	Copper tube
Jacket Color	Black
Outer Conductor Material	Corrugated copper

Dimensions

Nominal Size	5 in
Cable Volume	117.0 ft³/kft | 10869.3 L/km
Cable Weight	4.91 kg/m | 3.30 lb/ft
Diameter Over Jacket	132.080 mm | 5.200 in
Inner Conductor OD	51.3080 mm | 2.0200 in
Outer Conductor OD	127.000 mm | 5.000 in

Electrical Specifications

Cable Impedance	50 ohm ±0.5 ohm
Capacitance	21.7 pF/ft | 71.2 pF/m
dc Resistance, Inner Conductor	0.328 ohms/km | 0.100 ohms/kft
dc Resistance, Outer Conductor	0.131 ohms/km | 0.040 ohms/kft
dc Test Voltage	27500 V
Inductance	1.870 µH/m | 0.570 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	12000 V
Operating Frequency Band	1 – 960 MHz
Peak Power	1890.0 kW
Power Attenuation	6.661
Velocity	93 %

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)

Mechanical Specifications

Bending Moment	271.2 N-m | 200.0 ft lb
Flat Plate Crush Strength	275.0 lb/in | 4.9 kg/mm
Minimum Bend Radius, Multiple Bends	1270.00 mm | 50.00 in
Number of Bends, minimum	15
Number of Bends, typical	30
Pressurization, maximum	0 N/mm^2 | 30 psi
Tensile Strength	454 kg | 1000 lb

Note

Performance Note	Values typical, unless otherwise stated

Standard Conditions

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

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.017	0.005	1273.93
1	0.024	0.007	898.92
1.5	0.03	0.009	732.79
2	0.034	0.011	633.76
10	0.078	0.024	279.93
20	0.111	0.034	196.13
30	0.137	0.042	159.03
50	0.179	0.055	121.84
85	0.237	0.072	92.09
88	0.242	0.074	90.41
100	0.259	0.079	84.46
108	0.27	0.082	81.05
150	0.322	0.098	67.93
174	0.349	0.106	62.68
200	0.376	0.115	58.10
204	0.38	0.116	57.48
300	0.47	0.143	46.47
400	0.552	0.168	39.57
450	0.59	0.18	37.02
460	0.598	0.182	36.56
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500	0.627	0.191	34.87
512	0.635	0.194	34.40
600	0.696	0.212	31.42
700	0.76	0.232	28.74
800	0.822	0.25	26.59
824	0.836	0.255	26.14
894	0.877	0.267	24.91
960	0.915	0.279	23.89

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system