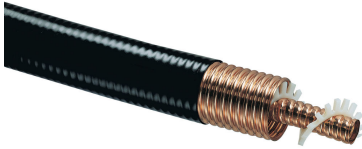


HJ9-50

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



OBSOLETE

Product Classification

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

General Specifications

Flexibility	Standard
Jacket Color	Black

Dimensions

Diameter Over Jacket	132.08 mm 5.2 in
Inner Conductor OD	51.308 mm 2.02 in
Outer Conductor OD	127 mm 5 in
Nominal Size	5 in
Cable Volume	10,869.651 L/km 117 ft³/kft

Electrical Specifications

Cable Impedance	50 ohm \pm 0.5 ohm
Capacitance	71.194 pF/m 21.7 pF/ft
dc Resistance, Inner Conductor	0.328 ohms/km 0.1 ohms/kft
dc Resistance, Outer Conductor	0.131 ohms/km 0.04 ohms/kft
dc Test Voltage	27500 V
Inductance	0.187 μ H/m 0.057 μ H/ft

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Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	12000 V
Operating Frequency Band	1 – 960 MHz
Peak Power	1890 kW
Power Attenuation	6.661
Velocity	93 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.024	0.007	898.9
1.5	0.03	0.009	732.78
2.0	0.034	0.011	633.76
10.0	0.078	0.024	279.96
20.0	0.111	0.034	196.17
30.0	0.137	0.042	159.06
50.0	0.179	0.055	121.87
85.0	0.237	0.072	92.12
88.0	0.242	0.074	90.44
100.0	0.259	0.079	84.49
108.0	0.269	0.082	81.09
150.0	0.322	0.098	67.97
174.0	0.348	0.106	62.72
200.0	0.376	0.115	58.14
204.0	0.38	0.116	57.51
300.0	0.47	0.143	46.51
400.0	0.552	0.168	39.6
450.0	0.59	0.18	37.06
460.0	0.597	0.182	36.6
500.0	0.626	0.191	34.91
512.0	0.635	0.193	34.44
600.0	0.695	0.212	31.45
700.0	0.759	0.231	28.78
800.0	0.821	0.25	26.62
824.0	0.835	0.255	26.17
894.0	0.876	0.267	24.95

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960.0 0.914 0.278 23.92

Material Specifications

Dielectric Material	PE
Jacket Material	PE
Inner Conductor Material	Copper tube
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	1270 mm 50 in
Number of Bends, minimum	15
Number of Bends, typical	30
Tensile Strength	454 kg 1,000.897 lb
Bending Moment	200 ft lb 271.164 N-m
Flat Plate Crush Strength	4.911 kg/mm 275 lb/in
Pressurization, maximum	0.207 N/mm ² 30 psi

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

Packaging and Weights

Cable weight	4.911 kg/m 3.3 lb/ft
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Regulatory Compliance/Certifications

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

