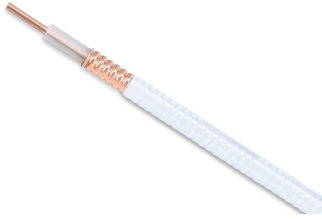


HL4RPV-50W-CBAND



HL4-50, HELIAX® Plenum Rated Air Dielectric Coaxial Cable, corrugated copper, 1/2 in, off white PVC jacket

Product Classification

Product Type	Air coaxial cable
Product Brand	HELIAX®
Product Series	HL4-50A

General Specifications

Product Number	520098102/00
Flexibility	Standard
Jacket Color	Off-white

Dimensions

Diameter Over Jacket	15.367 mm 0.605 in
Inner Conductor OD	4.801 mm 0.189 in
Outer Conductor OD	13.843 mm 0.545 in
Nominal Size	1/2 in

Electrical Specifications

Cable Impedance	50 ohm \pm 2 ohm
Capacitance	75.459 pF/m 23 pF/ft
dc Resistance, Inner Conductor	1.476 ohms/km 0.45 ohms/kft
dc Resistance, Outer Conductor	1.903 ohms/km 0.58 ohms/kft
dc Test Voltage	4000 V
Inductance	0.19 μ H/m 0.058 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 8800 MHz
Peak Power	40 kW
Power Attenuation	2.325

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Pulse Reflection	0.5%
Velocity	88 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.211	0.064	36.18
1.5	0.259	0.079	29.51
2.0	0.299	0.091	25.54
10.0	0.673	0.205	11.34
20.0	0.957	0.292	7.97
30.0	1.177	0.359	6.48
50.0	1.529	0.466	4.99
85.0	2.011	0.613	3.79
88.0	2.048	0.624	3.73
100.0	2.188	0.667	3.49
108.0	2.278	0.694	3.35
150.0	2.705	0.824	2.82
174.0	2.924	0.891	2.61
200.0	3.147	0.959	2.42
204.0	3.18	0.969	2.4
300.0	3.903	1.19	1.95
400.0	4.554	1.388	1.68
450.0	4.853	1.479	1.57
460.0	4.911	1.497	1.55
500.0	5.138	1.566	1.48
512.0	5.205	1.586	1.47
600.0	5.675	1.73	1.34
700.0	6.176	1.882	1.24
800.0	6.648	2.026	1.15
824.0	6.758	2.06	1.13
894.0	7.07	2.155	1.08
960.0	7.357	2.242	1.04
1000.0	7.526	2.294	1.01
1218.0	8.407	2.562	0.91
1250.0	8.531	2.6	0.89

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1500.0	9.461	2.884	0.81
1700.0	10.164	3.098	0.75
1794.0	10.483	3.195	0.73
1800.0	10.503	3.201	0.73
2000.0	11.163	3.402	0.68
2100.0	11.483	3.5	0.66
2200.0	11.798	3.596	0.65
2300.0	12.108	3.69	0.63
2500.0	12.714	3.875	0.6
2700.0	13.303	4.055	0.57
3000.0	14.159	4.315	0.54
3400.0	15.256	4.65	0.5
3600.0	15.788	4.812	0.48
3700.0	16.051	4.892	0.48
3800.0	16.311	4.971	0.47
3900.0	16.568	5.05	0.46
4000.0	16.824	5.128	0.45
4100.0	17.078	5.205	0.45
4200.0	17.329	5.282	0.44
4300.0	17.579	5.358	0.43
4400.0	17.827	5.433	0.43
4500.0	18.073	5.508	0.42
4600.0	18.317	5.583	0.42
4700.0	18.559	5.657	0.41
4800.0	18.8	5.73	0.41
4900.0	19.04	5.803	0.4
5000.0	19.277	5.875	0.4
6000.0	21.581	6.577	0.35
8000.0	25.869	7.884	0.29
8800.0	27.494	8.38	0.28

Material Specifications

Dielectric Material	PE spline
Jacket Material	PVC
Inner Conductor Material	Copper-clad aluminum wire

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Outer Conductor Material Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends 127 mm | 5 in

Number of Bends, minimum 15

Number of Bends, typical 25

Tensile Strength 113 kg | 249.122 lb

Bending Moment 4 ft lb | 5.423 N-m

Flat Plate Crush Strength 1.429 kg/mm | 80 lb/in

Environmental Specifications

Installation temperature -5 °C to +60 °C (+23 °F to +140 °F)

Operating Temperature -20 °C to +80 °C (-4 °F to +176 °F)

Storage Temperature -20 °C to +85 °C (-4 °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

Fire Retardancy Test Method NFPA 262/CATVP/CMP

Packaging and Weights

Cable weight 0.253 kg/m | 0.17 lb/ft