



## HL4RPV-50

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

#### **Construction Materials**

Jacket Material **PVC** Dielectric Material PE spline Flexibility Standard

Inner Conductor Material Copper-clad aluminum wire

Jacket Color Off-white

**Outer Conductor Material** Corrugated copper

### **Dimensions**

Nominal Size 1/2 in Cable Weight 0.25 kg/m | 0.17 lb/ft Diameter Over Jacket 15.367 mm | 0.605 in Inner Conductor OD 4.8006 mm | 0.1890 in Outer Conductor OD 13.843 mm | 0.545 in

# **Electrical Specifications**

Cable Impedance 50 ohm ±2 ohm 23.0 pF/ft | 75.5 pF/m Capacitance

dc Resistance, Inner Conductor 1.476 ohms/km | 0.450 ohms/kft

dc Resistance, Outer Conductor 1.903 ohms/km | 0.580 ohms/kft 4000 V

dc Test Voltage

0.190 μH/m | 0.058 μH/ft Inductance

Insulation Resistance 100000 Mohms•km

Jacket Spark Test Voltage (rms) 5000 V

Operating Frequency Band 1 - 8800 MHz Peak Power 40.0 kW Power Attenuation 2.325 Pulse Reflection 0.5%

88% Velocity

## **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) -20 °C to +85 °C (-4 °F to +185 °F) Storage Temperature

## **General Specifications**

**Brand HELIAX®** 



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# **Mechanical Specifications**

Bending Moment 5.4 N-m | 4.0 ft lb

Fire Retardancy Test Method NFPA 262/CATVP/CMP

Flat Plate Crush Strength 80.0 lb/in | 1.4 kg/mm

Minimum Bend Radius, Multiple Bends 127.00 mm | 5.00 in

Number of Bends, minimum 15

Number of Bends, typical 25

Tensile Strength 113 kg | 250 lb

#### Note

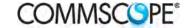
Performance Note Values typical, unless otherwise stated

### **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

### **Return Loss/VSWR**

Frequency Band	VSWR	Return Loss (dB)
800-960 MHz	1.25	19.00
1700-2200 MHz	1.25	19.00
2500-2700 MHz	1.25	19.00



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### **Attenuation**

Frequency (MHz)	<b>Attenuation (dB/100 m)</b> 0.149	Attenuation (dB/100 ft) 0.045	Average Power (kW) 40.00
0.5		0.045	
1	0.211		36.18
1.5	0.259	0.079	29.51
2	0.299	0.091	25.54
10	0.673	0.205	11.34
20	0.957	0.292	7.97
30	1.177	0.359	6.48
50	1.529	0.466	4.99
85	2.011	0.613	3.79
88	2.048	0.624	3.73
100	2.188	0.667	3.49
108	2.278	0.694	3.35
150	2.705	0.824	2.82
174	2.924	0.891	2.61
200	3.147	0.959	2.42
204	3.18	0.969	2.40
300	3.903	1.19	1.95
400	4.554	1.388	1.68
450	4.853	1.479	1.57
500	5.138	1.566	1.48
512	5.205	1.586	1.47
600	5.675	1.73	1.34
700	6.176	1.882	1.24
800	6.648	2.026	1.15
824	6.758	2.06	1.13
894	7.07	2.155	1.08
960	7.357	2.242	1.04
1000	7.526	2.294	1.01
1218	8.407	2.562	0.91
1250	8.531	2.6	0.89
1500	9.461	2.884	0.81
1700	10.164	3.098	0.75
1800	10.503	3.201	0.73
2000	11.163	3.402	0.68
2100	11.483	3.5	0.66
2200	11.798	3.596	0.65
2300	12.108	3.69	0.63
2500	12.714	3.875	0.60
2700	13.303	4.055	0.57
3000	14.159	4.315	0.54
3400	15.256	4.65	0.50
3700	16.051	4.892	0.48
4000	16.824	5.128	0.45
5000	19.277	5.875	0.40
6000	21.581	6.577	0.35
8000	25.868	7.884	0.29
8800	27.494	8.38	0.28
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<sup>\*</sup> Values typical, guaranteed within 5%

# **Regulatory Compliance/Certifications**

**Agency** 

Classification



HL4RPV-50

UL/ETL Certification ISO 9001:2008 c(ETL)us Certification CATVP/CMP
Designed, manufactured and/or distributed under this quality management system
CATVP/CMP