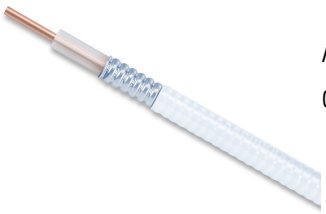
AL4RPV-50W-CBAND



AL4RPV-50, HELIAX® Plenum Rated Air Dielectric Coaxial Cable, corrugated aluminum, 1/2 in, off white PVC jacket.

- This product is part of the ANDREW Wired for Wireless® Solution

Product Classification

Product Type	Air coaxial cable
Product Brand	HELIAX®
Product Series	AL4-50
Ordering Note	ANDREW® standard product (Global)

General Specifications

Flexibility	Standard
Jacket Color	Off-white
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Jacket	15.748 mm | 0.62 in
Inner Conductor OD	4.572 mm | 0.18 in
Outer Conductor OD	14.046 mm | 0.553 in
Nominal Size	1/2 in

Electrical Specifications

Cable Impedance	50 ohm ±2 ohm
Capacitance	75.459 pF/m | 23 pF/ft
dc Resistance, Inner Conductor	1.575 ohms/km | 0.48 ohms/kft
dc Resistance, Outer Conductor	1.575 ohms/km | 0.48 ohms/kft
dc Test Voltage	4000 V
Inductance	0.19 µH/m | 0.058 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 6000 MHz
Peak Power	40 kW

AL4RPV-50W-CBAND

Power Attenuation	2.325
Pulse Reflection	0.5%
Velocity	88 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.216	0.066	35.37
1.5	0.264	0.081	28.84
2.0	0.306	0.093	24.95
10.0	0.691	0.211	11.04
20.0	0.985	0.3	7.75
30.0	1.213	0.37	6.29
50.0	1.581	0.482	4.83
85.0	2.087	0.636	3.66
88.0	2.126	0.648	3.59
100.0	2.274	0.693	3.35
108.0	2.368	0.722	3.22
150.0	2.821	0.86	2.7
174.0	3.054	0.931	2.5
200.0	3.292	1.003	2.32
204.0	3.327	1.014	2.29
300.0	4.104	1.251	1.86
400.0	4.808	1.465	1.59
450.0	5.134	1.565	1.49
460.0	5.197	1.584	1.47
500.0	5.445	1.659	1.4
512.0	5.517	1.682	1.38
600.0	6.032	1.839	1.26
700.0	6.583	2.007	1.16
800.0	7.105	2.166	1.07
824.0	7.227	2.203	1.06
894.0	7.574	2.308	1.01
960.0	7.892	2.405	0.97
1000.0	8.081	2.463	0.94
1218.0	9.068	2.764	0.84

1250.0	9.207	2.806	0.83
1500.0	10.256	3.126	0.74
1700.0	11.053	3.369	0.69
1794.0	11.416	3.48	0.67
1800.0	11.439	3.487	0.67
2000.0	12.192	3.716	0.63
2100.0	12.559	3.828	0.61
2200.0	12.92	3.938	0.59
2300.0	13.276	4.046	0.57
2500.0	13.975	4.259	0.55
2700.0	14.656	4.467	0.52
3000.0	15.649	4.77	0.49
3400.0	16.928	5.159	0.45
3600.0	17.551	5.349	0.43
3700.0	17.859	5.443	0.43
3800.0	18.164	5.536	0.42
3900.0	18.467	5.628	0.41
4000.0	18.768	5.72	0.41
4100.0	19.066	5.811	0.4
4200.0	19.363	5.902	0.39
4300.0	19.658	5.991	0.39
4400.0	19.951	6.081	0.38
4500.0	20.241	6.169	0.38
4600.0	20.531	6.257	0.37
4700.0	20.818	6.345	0.37
4800.0	21.104	6.432	0.36
4900.0	21.388	6.519	0.36
5000.0	21.671	6.605	0.35
6000.0	24.42	7.443	0.31

Material Specifications

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

AL4RPV-50W-CBAND

Mechanical Specifications

Minimum Bend Radius, multiple Bends	127 mm | 5 in
Minimum Bend Radius, single Bend	63.5 mm | 2.5 in
Number of Bends, minimum	15
Tensile Strength	79 kg | 174.165 lb
Bending Moment	5 ft lb | 6.779 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 +85 °C (-4 °F to +185 °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	0.208 kg/m | 0.14 lb/ft