

AirCell[®] PLENUM CABLES

Cable Specifications

75 Ohm Plenum, 1/2"

Description	Product Code
Plenum Cables	
1/2" Corrugated Cable, Jacketed UL-910, CATVP	AP012J75
Physical Dimensions	
Center Conductor	Copper Clad Aluminum
Outer Conductor	Corrugated Aluminum
Dia. Over Outer Conductor, in (mm)	0.540 (13.72)
Dia. Over Jacket, in (mm)	0.615 (15.62)
Electrical Characteristics	
Impedance, Ohms	75
Maximum Frequency, GHz	12
Velocity of Propagation	95%
Peak Power Rating, kW	35
DC Res., Ohms/1000 ft (1000 m)	
Center	1.09 (3.58)
Outer	0.51 (1.67)
DC Breakdown, kV	4
Jacket Spark, kV RMS	8
Capacitance, pF/ft (m)	14.84 (48.68)
Inductance, mH/ft (m)	0.080 (0.264)
Mechanical Characteristics	
Minimum Bending Radius, in (mm)	5.0 (127)
Number of Bends, minimum (typical)	15 (20)
Cable Weight, lb/ft (kg/m)	
Unjacketed	0.058 (0.086)
Jacketed	0.104 (0.155)
Tensile Strength, lb (kg)	145 (66)
Flat Plate Crush Strength lb/in (kg/mm)	78 (1.39)
Temperature °F (°C)	
Recommended Install	+5 to 194 (-15 to 90)
Recommended Storage	+5 to 194 (-15 to 90)
Operating	+5 to 194 (-15 to 90)

Attenuation and Average Power			
Frequency MHz	Attenuation		Avg. Pwr. kW
	dB/100ft	dB/100m	
5	0.15	0.49	9.33
10	0.21	0.70	6.60
20	0.30	0.98	4.66
30	0.37	1.21	3.78
50	0.48	1.57	2.93
88	0.66	2.18	2.10
100	0.71	2.32	1.97
108	0.74	2.42	1.90
150	0.87	2.85	1.61
174	0.93	3.07	1.50
200	1.00	3.29	1.40
300	1.20	3.94	1.17
400	1.40	4.59	1.00
450	1.48	4.87	0.94
500	1.57	5.15	0.89
512	1.59	5.21	0.88
600	1.73	5.68	0.81
700	1.87	6.13	0.75
800	2.02	6.62	0.69
824	2.05	6.73	0.68
894	2.14	7.01	0.66
960	2.21	7.25	0.63
1000	2.26	7.41	0.62
1250	2.57	8.43	0.54
1500	2.81	9.22	0.50
1700	3.01	9.88	0.46
1950	3.25	10.7	0.43
2000	3.29	10.8	0.43
2300	3.52	11.6	0.40
2400	3.60	11.8	0.39
3000	4.03	13.2	0.35

Standard conditions:

For attenuation, VSWR 1.0, ambient temperature 20°C (68°F)
 For average power, VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), no solar loading