

Cable Specifications

50 Ohm Plenum, 1/2"

Description	Product Number
Standard Cable	
1/2", Corrugated, Jacketed UL-910, CATVP	AP012J50
Physical Dimensions	
Center Dia., in (mm)	0.188 (4.78)
Dia. Over Dielectric, in (mm)	0.470 (11.94)
Dia. Over Outer Conductor, in (mm)	0.540 (13.72)
Dia. Over Jacket, in (mm)	0.615 (15.62)
Center Conductor	Copper Clad Aluminum
Outer Conductor	Corrugated Aluminum
Jacket Color	Off-white
Electrical Characteristics	
Maximum Frequency, GHz	10
Peak Power Rating, KW	35
DC Res., Ohms/1000 ft (1000m)	
Center	0.46 (1.51)
Outer	0.51 (1.67)
DC Breakdown, kV	4
Capacitance, pF/ft (m)	22 (72.12)
Inductance, mH/ft (m)	0.057 (0.187)
Jacket Spark, kV RMS	8
Impedance, Ohms	50
Velocity of Propagation	94%
Mechanical Characteristics	
Min. Bend. Radius, in (mm) – Single	2 (50.8)
Min. Bend. Radius, in (mm) – Multiple	5 (127)
Cable Weight, lb/ft (kg/m)	0.129 (0.192)
Bending Moment, ft.lb (N'm)	1 (1.4)
Tensile Strength, lb (kg)	250 (114)
Flat Plate Crush, lb/in (kg/mm)	78 (1.39)
Number of Bends, minimum	15
Number of Bends, typical	25
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)

Frequency MHz	Attenuation		Avg. Pwr. kW
	dB/100 ft	dB/100m	
5	0.159	0.56	17.6
10	0.225	0.82	12.0
20	0.319	1.10	8.95
30	0.391	1.35	7.29
50	0.507	1.74	5.66
88	0.676	2.30	4.28
100	0.722	2.47	3.98
108	0.751	2.56	3.84
150	0.889	3.03	3.20
174	0.960	3.26	3.03
200	1.03	3.50	2.80
300	1.27	4.32	2.27
400	1.48	5.01	1.96
450	1.57	5.32	1.85
500	1.66	5.62	1.75
512	1.68	5.70	1.73
600	1.83	6.20	1.58
700	1.99	6.70	1.47
800	2.13	7.17	1.37
824	2.19	7.28	1.35
894	2.26	7.61	1.29
960	2.35	7.90	1.24
1000	2.40	8.10	1.21
1250	2.71	9.09	1.08
1500	2.99	10.0	0.98
1700	3.20	10.0	0.98
1950	3.45	11.6	0.85
2000	3.50	11.7	0.84
2300	3.76	12.6	0.78
2400	3.92	12.9	0.77
3000	4.38	14.5	0.68

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

