

AirCell® ULTRA - FLEX CABLE

Cable Specifications

50 Ohm 1/2" Ultra-Flex Cable

Description	Product Number
Standard Cable	
Ultra-Flex, Black Polyethylene Jacket	AU012J50
Physical Dimensions	
Center Conductor	Copper Clad Aluminum
Outer Conductor	Corrugated Aluminum
Center Dia., in (mm)	0.188 (4.78)
Dia. Over Outer Conductor, in (mm)	0.550 (13.97)
Dia. Over Jacket, in (mm)	0.630 (16.00)
Electrical Characteristics	
Impedance, Ohms	50
Maximum Frequency, GHz	10
Velocity of Propagation	92%
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
Jacket Spark, kV RMS	8
Capacitance, pF/ft (m)	22.3 (73.16)
Inductance, mH/ft (m)	0.056 (0.184)
Mechanical Characteristics	
Minimum Bending Radius, in (mm)	3.5 (89)
Number of Bends (typical)	15 (20)
Cable Weight, lb/ft (kg/km)	.135 (.202)
Tensile Strength, lb (kg)	250 (114)
Flat Plate Crush, lb/in (kg/mm)	78 (1.39)
Temperature, °F (°C)	
Recommended Install	-40 to 170 (-40 to 77)
Recommended Storage	-94 to 170 (-70 to 77)
Operating	-40 to 170 (-40 to 77)

Frequency MHz	Attenuation		Avg Pwr kW
	dB/100 ft	dB/100m	
30	0.39	1.29	7.45
50	0.51	1.68	5.74
88	0.68	2.24	4.30
100	0.73	2.39	4.03
108	0.76	2.49	3.87
150	0.90	2.95	3.27
174	0.97	3.19	3.03
200	1.04	3.43	2.81
300	1.29	4.23	2.28
400	1.50	4.93	1.96
450	1.60	5.24	1.84
500	1.69	5.54	1.74
512	1.71	5.61	1.72
600	1.86	6.11	1.58
700	2.02	6.63	1.45
800	2.17	7.13	1.35
824	2.21	7.24	1.33
894	2.31	7.57	1.27
960	2.40	7.86	1.23
1000	2.45	8.04	1.20
1250	2.77	9.08	1.06
1500	3.06	10.04	0.96
1800	3.39	11.10	0.87
1900	3.49	11.44	0.84
2000	3.59	11.78	0.82
2100	3.69	12.10	0.80
2300	3.88	12.73	0.76
2400	3.98	13.04	0.74
3000	4.51	14.80	0.65

