

### Cable Specifications

#### 50 Ohm Ultra-Flex Cable 1/2"

Description	Product Number
<b>Standard Cable</b>	
1/2", Ultra-Flex, Black Polyethylene Jacket	AU012J50
<b>Riser Rated Cable</b>	
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, UL-1666, CMR, IEC332-1, IEC332-3C	AU012R50
<b>Physical Dimensions</b>	
Center Dia., in (mm)	0.188 (4.78)
Dia. Over Dielectric, in (mm)	0.435 (11.05)
Dia. Over Outer Conductor, in (mm)	0.550 (13.97)
Dia. Over Jacket, in (mm)	0.630 (16.00)
Center Conductor	Copper Clad Aluminum
Outer Conductor	Corrugated Aluminum
<b>Electrical Characteristics</b>	
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)	22.3 (73.16)
Inductance, mH/ft (m)	0.056 (0.184)
Jacket Spark, kV RMS	8
Impedance, Ohms	50
Velocity of Propagation	90%
<b>Mechanical Characteristics</b>	
Minimum Bending Radius, in (mm)	3.5 (89)
Cable Weight, lb/ft (kg/m)	0.135 (0.202)
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	12
Number of Bends, typical	20
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)

Attenuation and Average Power			
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
2300	3.88	12.73	0.76
3000	4.51	14.80	0.65

**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