

Cable Specifications

50 Ohm Transline Cable 1/2"

Description	Product Number
Standard Cable	
1/2", Black Polyethylene Jacket	AT012J50
Fire Retardant Jacket	
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, IEC332-1	AT012FX50
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, IEC332-1, MSHA	AT012F50
Riser Rated Cable	
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, UL-1666, CMR, IEC332-1, IEC332-3C	AT012R50
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)	0.510 (12.95)
Max. Dia. Over Jacket, in (mm)	0.642 (16.30)
Center Conductor	Copper-Clad Aluminum
Outer Conductor	Solid Aluminum
Electrical Characteristics	
Maximum Frequency, GHz	11
Peak Power Rating, KW	32
DC Res, Ohms/1000 ft (1000m)	
Center	0.46 (1.51)
Outer	0.45 (1.48)
DC Breakdown, kV	3.2
Capacitance, pF/ft (m)	22.3 (73.16)
Inductance, mH/ft (m)	0.056 (0.184)
Jacket Spark, kV RMS	8
Typical VSWR	1.3
Impedance, Ohms	50
Velocity of Propagation	91%
Mechanical Characteristics	
Min. Bend. Rad., in (mm) – Single	2 (50.8)
Min. Bend. Rad., in (mm) – Multiple	6 (152)
Cable Weight, lb/ft (kg/m)	0.12 (0.18)
Bending Moment, ft.lb (N'm)	7.5 (10.2)
Tensile Strength, lb (kg)	465 (211)
Flat Plate Crush, lb/in (kg/mm)	62 (1.11)
Number of Bends	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)

Frequency MHz	Attenuation and Average Power		Avg. Pwr. kW
	Attenuation dB/100 ft	dB/100m	
30	0.37	1.21	4.11
50	0.48	1.57	3.18
88	0.63	2.06	2.39
100	0.68	2.23	2.24
108	0.69	2.26	2.16
150	0.84	2.76	1.83
174	0.88	2.88	1.70
200	0.98	3.22	1.58
300	1.21	3.97	1.29
400	1.41	4.63	1.11
450	1.49	4.89	1.05
500	1.57	5.15	1.00
512	1.59	5.22	0.98
600	1.73	5.68	0.91
700	1.88	6.17	0.84
800	2.03	6.66	0.78
824	2.05	6.73	0.77
894	2.15	7.05	0.74
960	2.25	7.38	0.71
1000	2.29	7.51	0.70
1250	2.57	8.43	0.62
1500	2.85	9.35	0.57
1800	3.16	10.37	0.52
1900	3.27	10.73	0.50
2000	3.38	11.09	0.49
2300	3.61	11.80	0.46
3000	4.29	14.07	0.40

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

Product Certifications:

Transline cables and connectors are certified to exceed the strict Verizon Wireless PIM [Passive Inter Modulation] and Motorola 25kW PIP [Peak Instantaneous Power] specifications.