

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
1/2", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, IEC332-1, IEC332-3C, UL 1685-12 (FT4/IEEE1202, NFPA-130)	AT012FV50
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
VSWR typical, optimized bands	1.1
VSWR typical, broadband	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)

Attenuation and Average Power			
Frequency MHz	Attenuation		Avg. Pwr. kW
	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.