

### Product Specification

#### 50 Ohm Transline Cable, 1/2" - AT012J50

Description	Product Number
<b>Standard Cable</b>	
1/2", Black Polyethylene Jacket	AT012J50
<b>Physical Dimensions</b>	
Center Diameter, in (mm)	0.188 (4.78)
Diameter Over Dielectric, in (mm)	0.480 (12.19)
Diameter Over Outer Conductor, in (mm)	0.512 (13.00)
Maximum Diameter Over Jacket, in (mm)	0.592 (15.04)
Center Conductor	Copper-Clad Aluminum
Outer Conductor	Solid Aluminum
Jacket Color	Black
<b>Electrical Characteristics</b>	
Maximum Frequency, GHz	11
Peak Power Rating, KW	32
DC Resistance, Ohms/1,000 ft (1,000 m)	
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 min, (dB)	1.25 (19.0)
VSWR in-band, (dB)	1.13 (24.3)
Impedance, Ohms	50 ± 2
Velocity of Propagation	91%
<b>Mechanical Characteristics</b>	
Minimum Bend Radius, in (mm) - Single	2 (50.8)
Minimum Bend Radius, in (mm) - Multiple	6 (152)
Cable Weight, lb/ft (kg/m)	0.13 (0.19)
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
Recommended Install Temp., °F (°C)	-10° to 170° (-23° to 77°)
Recommended Storage Temp., °F (°C)	-40° to 170° (-40° to 77°)
Recommended Operating Temp., °F (°C)	-40° to 170° (-40° to 77°)
<b>Standard Conditions</b>	
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	
<b>Product Certifications</b>	
Transline Cables and Connectors are certified to exceed the strict Verizon Wireless PIM [Passive Inter Modulation] and Motorola 25kW PIP [Peak Instantaneous Power] Specifications	
<b>Regulatory Compliance/Certifications</b>	
RoHS 2011/65/EU Compliant	
TL 9000 H-V - All Cables designed and manufactured under this quality management system	



Attenuation and Average Power			
Frequency, MHz	Attenuation		Average Power kW
	dB/100 ft	dB/100 m	
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

### Trilogy AirCell® Cable

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