

### Cable Specifications

#### 75 Ohm Transline Cable 7/8"

Description	Product Number
<b>Standard Cable</b>	
7/8", Black Polyethylene Jacket	AT078J75
<b>Fire Retardant Jacket</b>	
7/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, IEC332-1	AT078FX75
<b>Riser Rated Cable</b>	
7/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket, UL-1666, CMR, IEC332-1, IEC332-3C	AT078R75
<b>Physical Dimensions</b>	
Center Dia., in (mm)	0.248 (6.30)
Dia. Over Dielectric, in (mm)	0.961 (24.41)
Dia. Over Outer Conductor, in (mm)	1.015 (25.78)
Max. Dia. Over Jacket, in (mm)	1.147 (29.13)
Center Conductor	Copper Clad Aluminum
Outer Conductor	Solid Aluminum Tube
<b>Electrical Characteristics</b>	
Maximum Frequency, GHz	6
Peak Power Rating, KW	68
DC Res, Ohms/1000 ft (1000m)	
Center	0.26 (0.85)
Outer	0.15 (0.49)
DC Breakdown, kV	6.4
Capacitance, pF/ft (m)	14.9 (48.9)
Inductance, mH/ft (m)	0.083 (0.273)
Jacket Spark, kV RMS	8
Typical VSWR	< 1.1
Impedance, Ohms	75
Velocity of Propagation	93%
<b>Mechanical Characteristics</b>	
Min. Bend. Rad., in (mm) – Single	8 (203)
Min. Bend. Rad., in (mm) – Multiple	10 (254)
Cable Weight, lb/ft (kg/m)	0.35 (0.47)
Bending Moment, ft.lb (N'm)	35 (47.5)
Tensile Strength, lb (kg)	830 (377)
Flat Plate Crush, lb/in (kg/mm)	132 (2.36)
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		Avg. Pwr. kW
	dB/100 ft	dB/100m	
30	0.18	0.59	9.46
50	0.23	0.75	7.41
88	0.30	0.98	5.68
100	0.32	1.05	5.32
108	0.34	1.12	5.01
150	0.40	1.31	4.51
174	0.43	1.41	3.96
200	0.46	1.51	3.70
300	0.60	1.97	2.84
400	0.70	2.30	2.43
450	0.74	2.43	2.30
500	0.78	2.56	2.18
512	0.79	2.59	2.16
600	0.87	2.85	1.96
700	0.94	3.08	1.81
800	1.02	3.35	1.67
824	1.04	3.41	1.64
894	1.08	3.54	1.58
960	1.13	3.71	1.51
1000	1.16	3.81	1.49
1250	1.30	4.26	1.31
1500	1.45	4.76	1.17
1800	1.62	5.31	1.06
1900	1.68	5.51	1.02
2000	1.74	5.71	0.98
2300	1.89	6.20	0.90
3000	2.16	7.09	0.79

**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

