50 Ohm Transline Cable 1-5/8"

Description	Product Code
Standard Cable	
1-5/8", Black Polyethylene Jacket	AT158J50
Fire Retardant Cable	
1-5/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket. UL-1666, CMX	AT158F50
Riser Rated Cable	
1-5/8", Low-Smoke, Non-Halogenated, Fire Retardant Jacket. UL-1666, CMR	AT158R50
Physical Dimensions	
Center Dia., in (mm)	0.728 (18.49)
Dia. Over Dielectric, in (mm)	1.871 (47.52)
Dia. Over Outer Conductor, in (mm)	1.888 (47.96)
Max. Dia. Over Jacket, in (mm)	2.035 (51.69)
Center Conductor	Solid Copper Tube
Outer Conductor	Solid Aluminum Tube
Electrical Characteristics	
Maximum Frequency, GHz	3
Peak Power Rating, kW	315
DC Res., Ohms/1000 ft (1000m)	
Center	0.22 (0.72)
Outer	0.10 (0.33)
DC Breakdown, kV	11
Capacitance, pF/ft (m)	22.3 (73.14)
Inductance, mH/ft (m)	0.056 (0.184)
Jacket Spark, kV RMS	8
Typical VSWR	<1.1
Impedance, Ohms	50
Velocity of Propagation	91%
Mechanical Characteristics	
Minimum Bending Radius, in (mm)	20 (508)
Cable Weight, lb/ft (kg/m)	0.701 (1.045)
Bending Moment, lb/ft (N·m)	60 (81)
Tensile Strength, lb (kg)	1500 (682)
Flat Plate Crush, lb/in (kg/mm)	150 (2.68)
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 dB/100ft	dB/100m	Avg. Pwr. kW
30	0.099	0.325	39.16
50	0.130	0.426	30.16
88	0.174	0.571	24.87
100	0.187	0.613	20.67
108	0.194	0.636	20.00
150	0.232	0.761	16.55
174	0.251	0.823	12.65
200	0.270	0.886	14.09
300	0.336	1.102	11.19
400	0.394	1.292	9.47
450	0.423	1.387	8.85
500	0.446	1.463	8.31
512	0.453	1.486	8.19
600	0.495	1.624	7.46
700	0.543	1.781	6.80
800	0.589	1.932	6.26
824	0.599	1.965	6.24
894	0.623	2.043	5.93
960	0.648	2.125	5.56
1000	0.671	2.201	5.46
1250	0.753	2.470	4.75
1500	0.852	2.795	4.23
1700	0.922	3.024	3.90
1920	0.995	3.264	3.59
2000	1.019	3.342	3.51
2300	1.165	3.821	3.20
3000	1.679	5.507	2.44

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