

Coaxial Cable



PRODUCT SPECIFICATION

TS041-50-S1

Solid PTFE Dielectric

CHARACTERISTICS

Materials

Jacket	Polyethylene
Jacket Color	Black
Outer Conductor	Corrugated Copper
Dielectric	PTFE
Inner Conductor	Silver Plated Copper Wire

Mechanical

Nominal Size	4.1 mm
Diameter over Jacket, mm (in)	4.85 (0.19)
Diameter over Outer Conductor, mm (in)	4.14 (0.16)
Diameter over Foam Dielectric, mm (in)	2.95 (0.12)
Diameter over Inner Conductor, mm (in)	1.02 (0.04)
Tensile Strength, kg (lb)	13.61 (30)
Flate Plate Crush Strength, kg/mm (lb/in)	0.71 (40)
Minimum Bending Radius, mm (in)	19.05 (0.75)
One Time Minimum Bending Radius, mm (in)	12.7 (0.5)
Bending Moment, N-m (lb-ft)	1.36 (1)
Number of Bends, minimum (typical)	15 (20)

Environmental

Operating Temperature, °C (°F)	-55 to 85 (-67 to 185)
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Electrical

Impedance, ohms	50
Frequency, maximum, MHz	18,000
Pulse Reflection, maximum, %	1
Velocity, %	69
Peak Power Rating, kW	4.2
dc Resistance, Inner, ohms/km (ohms/kft)	21 (6.4)
dc Resistance, Outer, ohms/km (ohms/kft)	11.81 (3.6)
Capacitance, pF/m (pF/ft)	97.77 (29.8)
Inductance, µH/m (µH/ft)	0.24 (0.07)
dc Breakdown, volts	1,300
Insulation Resistance, Mohm	100,000
Phase Trim, deg min/GHz	± 1.86

Customer Support Center:

From North America: 1-800-255-1479
International: +1-708-873-2307

www.andrew.com

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Attenuation and Average Power Ratings

Frequency MHz	Attenuation dB/100m	Attenuation dB/100ft	Average Power, kW	Frequency MHz	Attenuation dB/100m	Attenuation dB/100ft	Average Power, kW
0.5	0.687	0.209	4.2	824	31.0	9.46	0.225
1	0.972	0.296	4.20	894	32.5	9.89	0.215
1.5	1.19	0.363	4.20	960	33.8	10.3	0.207
2	1.38	0.420	4.20	1,000	34.6	10.5	0.202
10	3.10	0.945	2.25	1,250	39.2	11.9	0.179
20	4.41	1.34	1.59	1,500	43.4	13.2	0.161
30	5.42	1.65	1.29	1,700	46.6	14.2	0.150
50	7.04	2.15	0.993	2,000	51.2	15.6	0.137
88	9.43	2.87	0.741	2,300	55.5	16.9	0.126
100	10.1	3.07	0.694	3,000	64.8	19.8	0.108
108	10.5	3.20	0.667	4,000	77.0	23.5	0.091
150	12.4	3.79	0.562	5,000	88.1	26.9	0.079
174	13.5	4.10	0.519	6,000	98.6	30.1	0.071
200	14.5	4.41	0.483	8,000	118.1	36.0	0.059
300	18.0	5.47	0.389	10,000	136.2	41.5	0.051
400	20.9	6.38	0.334	12,000	153.3	46.7	0.046
450	22.3	6.80	0.313	14,000	169.7	51.7	0.041
500	23.6	7.20	0.296	16,000	185.5	56.5	0.038
512	23.9	7.29	0.292	18,000	200.8	61.2	0.035
600	26.1	7.95	0.268				
700	28.4	8.65	0.246				
800	30.5	9.30	0.229				

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.

VSWR Specifications

Frequency Band, GHz	Using Connector Type	Above 15 m Above 50 ft
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0.01 - 18.00

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