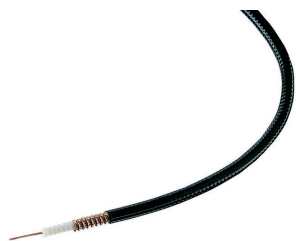


TS041-50



TS041-50, HELIAX® Foam Coaxial Cable, corrugated copper, 4.1 mm, black PE jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	TS041-50

General Specifications

Flexibility	Superflexible
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%

Dimensions

Diameter Over Dielectric	2.921 mm 0.115 in
Diameter Over Jacket	4.851 mm 0.191 in
Inner Conductor OD	1.016 mm 0.04 in
Outer Conductor OD	4.14 mm 0.163 in
Nominal Size	4.1 mm

Electrical Specifications

Cable Impedance	50 ohm ±1.5 ohm
Capacitance	98.4 pF/m 29.992 pF/ft
dc Resistance, Inner Conductor	20.998 ohms/km 6.4 ohms/kft
dc Resistance, Outer Conductor	11.812 ohms/km 3.6 ohms/kft
dc Test Voltage	1300 V
Inductance	0.24 µH/m 0.073 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	2000 V
Operating Frequency Band	1 – 18000 MHz
Peak Power	4.2 kW

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Velocity 69 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.972	0.296	4.2
1.5	1.191	0.363	4.2
2.0	1.377	0.42	4.2
10.0	3.1	0.945	2.25
20.0	4.407	1.343	1.59
30.0	5.419	1.652	1.29
50.0	7.041	2.146	0.99
85.0	9.258	2.822	0.75
88.0	9.426	2.873	0.74
100.0	10.073	3.07	0.69
108.0	10.484	3.195	0.67
150.0	12.445	3.793	0.56
174.0	13.452	4.1	0.52
200.0	14.476	4.412	0.48
204.0	14.627	4.458	0.48
300.0	17.946	5.47	0.39
400.0	20.933	6.38	0.33
450.0	22.304	6.798	0.31
460.0	22.57	6.879	0.31
500.0	23.611	7.196	0.3
512.0	23.917	7.289	0.29
600.0	26.071	7.946	0.27
700.0	28.364	8.645	0.25
800.0	30.526	9.304	0.23
824.0	31.028	9.457	0.23
894.0	32.46	9.893	0.22
960.0	33.769	10.292	0.21
1000.0	34.545	10.529	0.2
1218.0	38.575	11.757	0.18
1250.0	39.142	11.93	0.18
1500.0	43.392	13.225	0.16

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1700.0	46.601	14.203	0.15
1794.0	48.059	14.648	0.15
1800.0	48.151	14.676	0.15
2000.0	51.16	15.593	0.14
2100.0	52.623	16.039	0.13
2200.0	54.06	16.477	0.13
2300.0	55.474	16.908	0.13
2500.0	58.238	17.75	0.12
2700.0	60.924	18.569	0.11
3000.0	64.825	19.758	0.11
3400.0	69.824	21.281	0.1
3600.0	72.248	22.02	0.1
3700.0	73.442	22.384	0.1
3800.0	74.626	22.745	0.09
3900.0	75.8	23.103	0.09
4000.0	76.964	23.457	0.09
4100.0	78.118	23.809	0.09
4200.0	79.263	24.158	0.09
4300.0	80.399	24.504	0.09
4400.0	81.527	24.848	0.09
4500.0	82.646	25.189	0.08
4600.0	83.757	25.528	0.08
4700.0	84.86	25.864	0.08
4800.0	85.956	26.198	0.08
4900.0	87.045	26.53	0.08
5000.0	88.127	26.86	0.08
6000.0	98.596	30.051	0.07
8000.0	118.069	35.986	0.06
8800.0	125.444	38.233	0.06
10000.0	136.161	41.5	0.05
12000.0	153.274	46.716	0.05
14000.0	169.644	51.705	0.04
15800.0	183.87	56.041	0.04
16000.0	185.425	56.515	0.04
18000.0	200.726	61.178	0.03

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Material Specifications

Dielectric Material	PTFE
Jacket Material	PE
Inner Conductor Material	Silver-plated copper wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	19.05 mm 0.75 in
Number of Bends, minimum	15
Number of Bends, typical	20
Tensile Strength	14 kg 30.865 lb
Bending Moment	1.4 N-m 12.391 in lb
Flat Plate Crush Strength	0.7 kg/mm 39.198 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C