

Product Specifications

ETS1-50T

ETS1-50T, HELIAX[®] Superflexible High Power, High Temperature Foam Coaxial Cable, corrugated copper, 1/4 in, blue PVDF jacket



CHARACTERISTICS

Construction Materials

Jacket Material	PVDF
Outer Conductor Material	Corrugated copper
Dielectric Material	Expanded PTFE
Flexibility	Superflexible
Inner Conductor Material	Silver-plated copper wire
Jacket Color	Blue

Dimensions

Nominal Size	1/4 in
Cable Weight	0.07 lb/ft 0.10 kg/m
Diameter Over Dielectric	4.826 mm 0.190 in
Diameter Over Jacket	7.366 mm 0.290 in
Inner Conductor OD	1.8796 mm 0.0740 in
Outer Conductor OD	6.350 mm 0.250 in

Electrical Specifications

Cable Impedance	50 ohm \pm 2 ohm
Capacitance	24.6 pF/ft 80.7 pF/m
dc Resistance, Inner Conductor	1.900 ohms/kft 6.234 ohms/km
dc Resistance, Outer Conductor	2.000 ohms/kft 6.562 ohms/km
dc Test Voltage	1600 V
Inductance	0.207 μ H/m 0.063 μ H/ft
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	4000 V

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Operating Frequency Band	1 – 20000 MHz
Peak Power	6.4 kW
Pulse Reflection	1%
Velocity	82%

Environmental Specifications

Installation Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +150 °C (-40 °F to +302 °F)
Storage Temperature	-40 °C to +85 °C (-40 °F to +185 °F)

General Specifications

Brand	HELIAX®
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Mechanical Specifications

Bending Moment	0.8 N-m 0.6 ft lb
Fire Retardancy Test Method	UL 910/CATVP
Flat Plate Crush Strength	100.0 lb/in 1.8 kg/mm
Minimum Bend Radius, Multiple Bends	25.40 mm 1.00 in
Minimum Bend Radius, Single Bend	25.40 mm 1.00 in
Number of Bends, minimum	15
Number of Bends, typical	20
Tensile Strength	68 kg 150 lb

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	200 °C 392 °F

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Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.408	0.124	6.40
1	0.577	0.176	6.40
1.5	0.707	0.216	6.40
2	0.817	0.249	6.40
10	1.832	0.558	6.40
20	2.597	0.791	6.40
30	3.186	0.971	5.52
50	4.124	1.257	4.26
88	5.492	1.674	3.20
100	5.861	1.786	3.00
108	6.095	1.858	2.89
150	7.206	2.196	2.44
174	7.773	2.369	2.26
200	8.347	2.544	2.11
300	10.277	3.132	1.71
400	11.92	3.633	1.48
450	12.669	3.861	1.39
500	13.38	4.078	1.31
512	13.545	4.128	1.30
600	14.709	4.483	1.20
700	15.939	4.858	1.10
800	17.09	5.209	1.03
824	17.357	5.29	1.01
894	18.114	5.521	0.97
960	18.804	5.731	0.94
1000	19.212	5.856	0.92
1250	21.611	6.587	0.81
1500	23.803	7.255	0.74
1700	25.442	7.754	0.69
1800	26.23	7.994	0.67
2000	27.75	8.458	0.63
2100	28.486	8.682	0.62
2200	29.206	8.902	0.60
2300	29.913	9.117	0.59
2500	31.287	9.536	0.56
2700	32.616	9.941	0.54
3000	34.533	10.525	0.51
3400	36.967	11.267	0.48
3700	38.715	11.8	0.45
4000	40.406	12.315	0.44
5000	45.698	13.928	0.38
6000	50.578	15.415	0.35
8000	59.464	18.124	0.30
8800	62.772	19.132	0.28
10000	67.529	20.582	0.26
12000	75.011	22.862	0.23
14000	82.05	25.008	0.21
15800	88.084	26.847	0.20
16000	88.739	27.046	0.20
18000	95.142	28.998	0.18

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19000	98.251	29.945	0.18
20000	101.305	30.876	0.17

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2002/95/EC
China RoHS SJ/T 11364-2006
ISO 9001:2008

Classification

Compliant
Below Maximum Concentration Value (MCV)
Designed, manufactured and/or distributed under this quality management system

