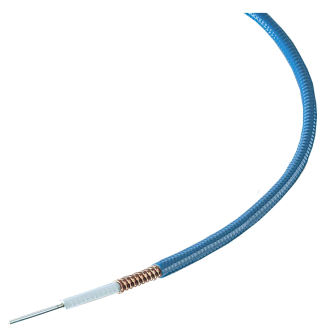


# ETS1-50T

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

## Product Classification

<b>Brand</b>	HELIAX®
<b>Product Series</b>	ETS1-50T
<b>Product Type</b>	Coaxial wireless cable

## Construction Materials

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

## Dimensions

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

## Electrical Specifications

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

# ETS1-50T

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<b>Operating Frequency Band</b>	1 – 20000 MHz
<b>Peak Power</b>	6.4 kW
<b>Velocity</b>	82 %

## Environmental Specifications

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

## Mechanical Specifications

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

## Note

<b>Performance Note</b>	Values typical, unless otherwise stated
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## Standard Conditions

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

## 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
85	5.397	1.645	3.26
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
204	8.432	2.57	2.09
300	10.277	3.132	1.71
400	11.92	3.633	1.48
450	12.669	3.861	1.39
460	12.814	3.906	1.37
460	12.814	3.906	1.37
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
1218	21.316	6.497	0.83
1250	21.611	6.587	0.81
1500	23.803	7.255	0.74
1700	25.442	7.754	0.69
1794	26.183	7.98	0.67
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
3600	38.139	11.624	0.46

# ETS1-50T

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3700	38.715	11.8	0.45
3800	39.285	11.973	0.45
3900	39.848	12.145	0.44
4000	40.406	12.315	0.44
4100	40.958	12.483	0.43
4200	41.504	12.65	0.42
4300	42.045	12.815	0.42
4400	42.581	12.978	0.41
4500	43.112	13.14	0.41
4600	43.638	13.3	0.40
4700	44.16	13.459	0.40
4800	44.677	13.617	0.39
4900	45.19	13.773	0.39
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
19000	98.251	29.945	0.18
20000	101.305	30.876	0.17

\* Values typical, guaranteed within 5%

## Regulatory Compliance/Certifications

### Agency

UL/ETL Certification

ISO 9001:2015

### Classification

CATVP

Designed, manufactured and/or distributed under this quality management system

