

Product Specifications



LDF5-50A

LDF5-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 7/8 in, black PE jacket



- NOTE: Regular production of this product ends December 31, 2007

CHARACTERISTICS

Construction Materials

Jacket Material	PE
Dielectric Material	Foam PE
Flexibility	Standard
Inner Conductor Material	Copper tube
Jacket Color	Black
Outer Conductor Material	Corrugated copper

Dimensions

Nominal Size	7/8 in
Cable Weight	0.33 lb/ft 0.49 kg/m
Diameter Over Dielectric	23.622 mm 0.930 in
Diameter Over Jacket	26.162 mm 1.030 in
Inner Conductor OD	8.890 mm 0.350 in
Outer Conductor OD	24.892 mm 0.980 in

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	23 pF/ft 75 pF/m
dc Resistance, Inner Conductor	0.320 ohms/kft 1.049 ohms/km
dc Resistance, Outer Conductor	0.360 ohms/kft 1.181 ohms/km
dc Test Voltage	6000 V
Inductance	0.187 μ H/m 0.057 μ H/ft
Insulation Resistance	100000 MOhm
Jacket Spark Test Voltage (rms)	8000 V
Operating Frequency Band	1 – 5000 MHz
Peak Power	91.0 kW
Pulse Reflection	0.5%
Velocity	89%

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 +60 °C (-94 °F to +140 °F)

Mechanical Specifications

Bending Moment	22.4 N-m 16.5 ft lb
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Flat Plate Crush Strength	80.0 lb/in 1.4 kg/mm
Minimum Bend Radius, Multiple Bends	254.00 mm 10.00 in
Minimum Bend Radius, Single Bend	127.00 mm 5.00 in
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	159 kg 350 lb

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F

Return Loss

Frequency Band	VSWR	Return Loss (dB)
806–960 MHz	1.13	24.30
1700–2000 MHz	1.13	24.30

Attenuation

Frequency (MHz)	Attenuation (dB/100 ft)	Attenuation (dB/100 m)	Average Power (kW)
0.5	0.025	0.081	91.00
1	0.035	0.115	79.19
1.5	0.043	0.141	64.60
2	0.05	0.163	55.89
10	0.112	0.366	24.81
20	0.159	0.521	17.44
30	0.195	0.641	14.18
50	0.254	0.833	10.91
88	0.34	1.116	8.14
100	0.364	1.193	7.62
108	0.378	1.242	7.32
150	0.449	1.475	6.16
174	0.486	1.595	5.70
200	0.523	1.716	5.30
300	0.649	2.13	4.27
400	0.758	2.486	3.66
450	0.808	2.65	3.43
500	0.855	2.806	3.24
512	0.866	2.843	3.20
600	0.945	3.1	2.93
700	1.029	3.375	2.69
800	1.107	3.633	2.50
824	1.126	3.694	2.46
894	1.178	3.865	2.35
960	1.226	4.022	2.26
1000	1.254	4.115	2.21
1250	1.423	4.667	1.95
1500	1.578	5.178	1.76
1700	1.696	5.565	1.63
1800	1.753	5.751	1.58
2000	1.863	6.114	1.49
2100	1.917	6.29	1.44

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2200	1.97	6.464	1.41
2300	2.022	6.634	1.37
2500	2.124	6.968	1.30
2700	2.223	7.293	1.25
3000	2.366	7.764	1.17
3400	2.551	8.369	1.09
4000	2.815	9.235	0.98
5000	3.228	10.59	0.86

Regulatory Compliance/Certifications

Agency

RoHS 2002/95/EC

Classification

Compliant

