

LDF7-50A

LDF7-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1-5/8 in, black PE jacket



OBSOLETE

This product was discontinued on: October 1, 2013

Replaced By:

AVA7-50 AVA7-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-5/8 in, black PE jacket (Halogen free jacketing non-fire-retardant)

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	LDF7-50A

General Specifications

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

Dimensions

Diameter Over Dielectric	44.196 mm 1.74 in
Diameter Over Jacket	49.784 mm 1.96 in
Inner Conductor OD	17.272 mm 0.68 in
Outer Conductor OD	46.482 mm 1.83 in
Nominal Size	1-5/8 in

Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
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Capacitance	75.8 pF/m 23.104 pF/ft
dc Resistance, Inner Conductor	0.82 ohms/km 0.25 ohms/kft
dc Resistance, Outer Conductor	0.525 ohms/km 0.16 ohms/kft
dc Test Voltage	11000 V
Inductance	0.19 µH/m 0.058 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	1 – 2700 MHz
Peak Power	315 kW
Velocity	88 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.063	0.019	174.46
1.5	0.077	0.024	142.22
2.0	0.089	0.027	122.99
10.0	0.202	0.062	54.32
20.0	0.289	0.088	38.05
30.0	0.356	0.109	30.85
50.0	0.465	0.142	23.63
85.0	0.615	0.188	17.86
88.0	0.627	0.191	17.53
100.0	0.671	0.205	16.38
108.0	0.699	0.213	15.72
150.0	0.834	0.254	13.17
174.0	0.904	0.276	12.15
200.0	0.976	0.297	11.26
204.0	0.986	0.301	11.14
300.0	1.22	0.372	9.01
400.0	1.433	0.437	7.67
450.0	1.532	0.467	7.17
460.0	1.551	0.473	7.09
500.0	1.627	0.496	6.76
512.0	1.649	0.503	6.67
600.0	1.806	0.55	6.09

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700.0	1.974	0.602	5.57
800.0	2.134	0.65	5.15
824.0	2.171	0.662	5.06
894.0	2.278	0.694	4.83
960.0	2.376	0.724	4.63
1000.0	2.434	0.742	4.52
1218.0	2.738	0.835	4.01
1250.0	2.781	0.848	3.95
1500.0	3.106	0.947	3.54
1700.0	3.354	1.022	3.28
1794.0	3.467	1.057	3.17
1800.0	3.474	1.059	3.16
2000.0	3.709	1.131	2.96
2100.0	3.824	1.165	2.87
2200.0	3.937	1.2	2.79
2300.0	4.049	1.234	2.71
2500.0	4.267	1.301	2.58
2700.0	4.481	1.366	2.45

Material Specifications

Dielectric Material	Foam PE
Jacket Material	PE
Inner Conductor Material	Corrugated copper tube
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	20 in 508 mm
Minimum Bend Radius, single Bend	8 in 203.2 mm
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	318 kg 701.069 lb
Bending Moment	54.2 N-m 479.71 in lb
Flat Plate Crush Strength	2.1 kg/mm 117.595 lb/in

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

Packaging and Weights

Cable weight	1.22 kg/m 0.82 lb/ft
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