LDF6-50

LDF6-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1-1/4 in, black PE jacket

OBSOLETE

This product was discontinued on: April 20, 2009

Replaced By:

AVA6-50	AVA6-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-1/4 in, black PE jacket (Halogen free jacketing non-fire-retardant)
AVA6P-50-43B	AVA6-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-1/4 in, black PE jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	LDF6-50

General Specifications

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

Dimensions

Diameter Over Dielectric	33.782 mm | 1.33 in
Diameter Over Jacket	39.37 mm | 1.55 in
Inner Conductor OD	13.208 mm | 0.52 in
Outer Conductor OD	35.814 mm | 1.41 in
Nominal Size	1-1/4 in

Electrical Specifications

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Cable Impedance	50 ohm ±1 ohm
Capacitance	75.1 pF/m | 22.89 pF/ft
dc Resistance, Inner Conductor	0.722 ohms/km | 0.22 ohms/kft
dc Resistance, Outer Conductor	0.623 ohms/km | 0.19 ohms/kft
dc Test Voltage	9000 V
Inductance	0.184 µH/m | 0.056 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	1 – 3300 MHz
Peak Power	205 kW
Velocity	89 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
806–990 MHz	1.13	24.29
1700–2000 MHz	1.13	24.29

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.075	0.023	127.47
1.5	0.092	0.028	103.94
2.0	0.107	0.033	89.92
10.0	0.241	0.074	39.81
20.0	0.344	0.105	27.94
30.0	0.423	0.129	22.69
50.0	0.551	0.168	17.42
85.0	0.728	0.222	13.2
88.0	0.741	0.226	12.96
100.0	0.792	0.242	12.12
108.0	0.825	0.252	11.64
150.0	0.983	0.299	9.77
174.0	1.064	0.324	9.03
200.0	1.146	0.349	8.38
204.0	1.158	0.353	8.29
300.0	1.428	0.435	6.73

400.0	1.672	0.51	5.74
450.0	1.784	0.544	5.38
460.0	1.806	0.551	5.32
500.0	1.892	0.577	5.08
512.0	1.917	0.584	5.01
600.0	2.095	0.639	4.58
700.0	2.286	0.697	4.2
800.0	2.466	0.752	3.89
824.0	2.508	0.764	3.83
894.0	2.628	0.801	3.65
960.0	2.738	0.834	3.51
1000.0	2.803	0.854	3.43
1218.0	3.143	0.958	3.06
1250.0	3.191	0.973	3.01
1500.0	3.553	1.083	2.7
1700.0	3.827	1.166	2.51
1794.0	3.952	1.204	2.43
1800.0	3.96	1.207	2.43
2000.0	4.219	1.286	2.28
2100.0	4.345	1.324	2.21
2200.0	4.469	1.362	2.15
2300.0	4.591	1.399	2.09
2500.0	4.831	1.472	1.99
2700.0	5.065	1.544	1.9
3000.0	5.406	1.648	1.78

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, multiple Bends	381 mm | 15 in
Minimum Bend Radius, single Bend	152.4 mm | 6 in

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Number of Bends, minimum	15
Number of Bends, typical	40
Tensile Strength	590 kg | 1,300.726 lb
Bending Moment	48.8 N-m | 431.916 in lb
Flat Plate Crush Strength	2.2 kg/mm | 123.194 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

Packaging and Weights

Cable weight	0.89 kg/m | 0.598 lb/ft