

LDF12P-50-41



LDF12-50, HELIAX® Low Density Foam Premium Coaxial Cable, corrugated copper, 2-1/4 in, black PE jacket

OBSOLETE

Product Classification

Brand	HELIAX®
Product Series	LDF12-50
Product Type	Coaxial wireless cable

Construction Materials

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

Dimensions

Nominal Size	2-1/4 in
Cable Weight	1.22 lb/ft 1.82 kg/m
Diameter Over Dielectric	52.832 mm 2.080 in
Diameter Over Jacket	59.690 mm 2.350 in
Inner Conductor OD	21.0820 mm 0.8300 in
Outer Conductor OD	55.880 mm 2.200 in

Electrical Specifications

Cable Impedance	50 ohm \pm 1 ohm
Capacitance	22.7 pF/ft 74.5 pF/m
dc Resistance, Inner Conductor	0.210 ohms/kft 0.689 ohms/km
dc Resistance, Outer Conductor	0.090 ohms/kft 0.295 ohms/km
dc Test Voltage	13000 V
Inductance	0.190 μ H/m 0.058 μ H/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	1 – 2200 MHz
Peak Power	425.0 kW

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Velocity 88 %

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)

Mechanical Specifications

Bending Moment 94.9 N-m | 70.0 ft lb
Flat Plate Crush Strength 150.0 lb/in | 2.7 kg/mm
Minimum Bend Radius, Multiple Bends 558.80 mm | 22.00 in
Minimum Bend Radius, Single Bend 241.30 mm | 9.50 in
Number of Bends, minimum 15
Number of Bends, typical 50
Tensile Strength 680 kg | 1500 lb

Note

Performance Note Values typical, unless otherwise stated

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/VSWR

Frequency Band	VSWR	Return Loss (dB)
1700–2200 MHz	1.13	24.29

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.037	0.011	323.89
1	0.052	0.016	228.42
1.5	0.064	0.02	186.13
2	0.074	0.023	160.92
10	0.169	0.052	70.86
20	0.242	0.074	49.54
30	0.299	0.091	40.10
50	0.391	0.119	30.64
85	0.519	0.158	23.08
88	0.529	0.161	22.65
100	0.566	0.173	21.14
108	0.591	0.18	20.28
150	0.707	0.215	16.95
174	0.767	0.234	15.61
200	0.829	0.253	14.45
204	0.838	0.255	14.29
300	1.041	0.317	11.51
400	1.227	0.374	9.76
450	1.313	0.4	9.12
460	1.33	0.405	9.00
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500	1.396	0.426	8.58
512	1.416	0.432	8.46
600	1.554	0.474	7.71
700	1.703	0.519	7.03
800	1.845	0.562	6.49
824	1.878	0.572	6.38
894	1.973	0.601	6.07
960	2.06	0.628	5.81
1000	2.112	0.644	5.67
1218	2.385	0.727	5.02
1250	2.423	0.739	4.94
1500	2.716	0.828	4.41
1700	2.94	0.896	4.07
1794	3.042	0.927	3.94
1800	3.049	0.929	3.93
2000	3.262	0.994	3.67
2100	3.366	1.026	3.56
2200	3.469	1.057	3.45

* Values typical, guaranteed within 5%