



LDF4RK-50A

LDF4-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/2 in, black non-halogenated, fire retardant polyolefin jacket

Product Classification

Brand HELIAX® | SureFlex® Product Type Coaxial wireless cable

Construction Materials

Jacket Material Non-halogenated, fire retardant polyolefin

Outer Conductor Material Corrugated copper

Dielectric Material Foam PE Flexibility Standard

Inner Conductor Material Copper-clad aluminum wire

Jacket Color Black

Dimensions

 Nominal Size
 1/2 in

 Cable Weight
 0.17 lb/ft | 0.25 kg/m

 Diameter Over Dielectric
 12.954 mm | 0.510 in

 Diameter Over Jacket
 16.002 mm | 0.630 in

 Inner Conductor OD
 4.8260 mm | 0.1900 in

 Outer Conductor OD
 13.970 mm | 0.550 in

Electrical Specifications

Cable Impedance 50 ohm ±1 ohm

Capacitance 23.1 pF/ft | 75.8 pF/m

dc Resistance, Inner Conductor0.450 ohms/kft| 1.480 ohms/kmdc Resistance, Outer Conductor0.820 ohms/kft| 2.690 ohms/km

dc Test Voltage 4000 V

Inductance 0.190 μ H/m | 0.058 μ H/ft

Insulation Resistance 100000 Mohms•km

Jacket Spark Test Voltage (rms) 5000 V
Operating Frequency Band 1 - 8800 MHz
Peak Power 40.0 kW

Velocity 88%

Environmental Specifications

Installation Temperature $-40 \, ^{\circ}\text{C}$ to $+60 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+140 \, ^{\circ}\text{F}$)

Operating Temperature $-40 \, ^{\circ}\text{C}$ to $+60 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+140 \, ^{\circ}\text{F}$)

Storage Temperature $-40 \, ^{\circ}\text{C}$ to $+60 \, ^{\circ}\text{C}$ ($-40 \, ^{\circ}\text{F}$ to $+140 \, ^{\circ}\text{F}$)

General Specifications

Brand HELIAX®

Ordering Note CommScope® standard product in Asia Pacific | CommScope® standard product in Europe, the Middle East, and Africa



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Mechanical Specifications

Bending Moment 3.8 N-m | 2.8 ft lb Fire Retardancy Test Method NFPA 130-2010 | UL 1666/CATVR/CMR Flat Plate Crush Strength 110.0 lb/in | 2.0 kg/mm Minimum Bend Radius, Multiple Bends 127.00 mm | 5.00 in Minimum Bend Radius, Single Bend 50.80 mm | 2.00 in Number of Bends, minimum 15 Number of Bends, typical 50 Smoke Index Test Method IEC 61034 Tensile Strength 113 kg | 250 lb

Note

Performance Note Values typical, unless otherwise stated

Standard Conditions

Toxicity Index Test Method

Attenuation, Ambient Temperature 20 °C | 68 °F

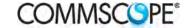
Average Power, Ambient Temperature 40 °C | 104 °F

Average Power, Inner Conductor Temperature 100 °C | 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
680-800 MHz	1.13	24.30
800-960 MHz	1.13	24.30
1700-2000 MHz	1.13	24.30
2300-2700 MHz	1.13	24.30

IEC 60754-1 | IEC 60754-2



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Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.149	0.045	40.00
1	0.211	0.064	36.11
1.5	0.259	0.079	29.46
2	0.299	0.091	25.50
10	0.672	0.205	11.35
20	0.954	0.291	7.99
30	1.172	0.357	6.51
50	1.521	0.463	5.02
85	1.995	0.608	3.82
88	2.031	0.619	3.76
100	2.169	0.661	3.52
108	2.256	0.688	3.38
150	2.673	0.815	2.85
174	2.887	0.88	2.64
200	3.103	0.946	2.46
204	3.135	0.956	2.43
300	3.835	1.169	1.99
400	4.462	1.36	1.71
450	4.749	1.447	1.61
500	5.021	1.53	1.52
512	5.085	1.55	1.50
600	5.533	1.686	1.38
700	6.009	1.831	1.27
800	6.456	1.968	1.18
824	6.56	1.999	1.16
894	6.855	2.089	1.11
960	7.124	2.171	1.07
1000	7.284	2.22	1.05
1218	8.11	2.472	0.94
1250	8.226	2.507	0.93
1500	9.093	2.771	0.84
1700	9.744	2.97	0.78
1794	10.039	3.06	0.76
1800	10.058	3.066	0.76
2000	10.666	3.251	0.72
2100	10.961	3.341	0.70
2200	11.251	3.429	0.68
2300	11.535	3.516	0.66
2500	12.09	3.685	0.63
2700	12.627	3.849	0.60
3000	13.407	4.086	0.57
3400	14.401	4.389	0.53
3700	15.118	4.608	0.50
4000	15.815	4.82	0.48
5000	18.01	5.489	0.42
6000	20.055	6.113	0.38
8000	23.826	7.262	0.32

^{*} Values typical, guaranteed within 5%

Regulatory Compliance/Certifications



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Agency

UL/ETL Certification RoHS 2011/65/EU China RoHS SJ/T 11364-2006 ISO 9001:2008 BASEC EN50575 Classification

CATVR/CMR Compliant

Below Maximum Concentration Value (MCV)

Designed, manufactured and/or distributed under this quality management system Compliant, DoP (Declaration of Performance) document available



