

# LDF7RN-50A

LDF7-50A, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1-5/8 in, gray non-halogenated, fire retardant polyolefin jacket



**OBSOLETE**

This product was discontinued on: May 21, 2017

**Replaced By:**

AVA7RK-50	AVA7RK-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket Cca-s2, d2, a1 (CPR testing is conducted annually please reference the website for latest classification)
AVA7RKD-50	AVA7-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-5/8 in, black non-halogenated, fire retardant polyolefin jacket

## Product Classification

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

## General Specifications

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

## Dimensions

Diameter Over Dielectric	44.196 mm   1.74 in
Diameter Over Jacket	50.292 mm   1.98 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

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## Electrical Specifications

Cable Impedance	50 ohm ±1 ohm
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)	8000 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

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500.0	1.627	0.496	6.76
512.0	1.649	0.503	6.67
600.0	1.806	0.55	6.09
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	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Corrugated copper tube
Outer Conductor Material	Corrugated copper

## Mechanical Specifications

Minimum Bend Radius, multiple Bends	508 mm   20 in
Minimum Bend Radius, single Bend	203.2 mm   8 in
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

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Flat Plate Crush Strength

2.1 kg/mm | 117.595 lb/in

## Environmental Specifications

Installation temperature	-25 °C to +60 °C (-13 °F to +140 °F)
Operating Temperature	-30 °C to +80 °C (-22 °F to +176 °F)
Storage Temperature	-30 °C to +80 °C (-22 °F to +176 °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
Fire Retardancy Test Method	UL 1666/CATVR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1   IEC 60754-2

## Packaging and Weights

Cable weight

1.52 kg/m | 1.021 lb/ft

## Regulatory Compliance/Certifications

Agency	Classification
UL/ETL Certification	CATVR

