LIRNA-PNMNM-IM

LDF1RK-50 SureFlex® Jumper with interface types N Male and N Male,

20.01

Product Classification

Product Type		Wireless transmission cable assembly
Product Brand		HELIAX® SureFlex®
Product Series		LDF1-50
General Specifications		
Body Style, Connector A		Straight
Body Style, Connector B		Straight
Interface, Connector A		N Male
Interface, Connector B		N Male
Specification Sheet Revision Level		А
Dimensions		
Length		1 m 3.281 ft
Nominal Size		1/4 in
VSWR/Return Loss		
Frequency Band	VSWR	Return Loss (dB)

Jumper Assembly Sample Label

1.222

700-3000 MHz

ANDREW an Amphenol company

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners. Revised: March 18, 2025

Page 1 of 12

LIRNA-PNMNM-IM



Environmental Specifications

EN50575 CPR Cable EuroClass Fire Performance	B2ca
EN50575 CPR Cable EuroClass Smoke Rating	s1a
EN50575 CPR Cable EuroClass Droplets Rating	d0
EN50575 CPR Cable EuroClass Acidity Rating	al
Immersion Test Method	Meets IEC 60529:2001, IP68 in mated condition

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

Included Products

35422-57	_	Heat treated LDF1RK-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated fire retardant jacket
LDF1RK-50	_	LDF1-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black non- halogenated fire retardant jacket, B2ca s1a d0 a1 Compliant



©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners. Revised: March 18, 2025

Page 2 of 12

35422-57



Heat treated LDF1RK-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated fire retardant jacket

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	LDF1-50
General Specifications	
Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%
Dimensions	
Diameter Over Dielectric	6.858 mm 0.27 in
Diameter Over Jacket	9.017 mm 0.355 in
Inner Conductor OD	2.54 mm 0.1 in
Outer Conductor OD	7.874 mm 0.31 in
Nominal Size	1/4 in
Electrical Specifications	
Cable Impedance	50 ohm ±1 ohm
Capacitance	77 pF/m 23.47 pF/ft
dc Resistance, Inner Conductor	5.151 ohms/km 1.57 ohms/kft
dc Resistance, Outer Conductor	4.003 ohms/km 1.22 ohms/kft
dc Test Voltage	2200 V
Inductance	0.059 μH/m 0.018 μH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 15800 MHz
Peak Power	12.1 kW

Page 3 of 12



Velocity

86 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680–960 MHz	1.201	20.79
1700–2200 MHz	1.201	20.79
2200–2700 MHz	1.433	14.99

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.394	0.12	12.1
1.5	0.483	0.147	12.1
2.0	0.558	0.17	12.1
10.0	1.254	0.382	5.83
20.0	1.781	0.543	4.11
30.0	2.188	0.667	3.34
50.0	2.838	0.865	2.58
85.0	3.724	1.135	1.96
88.0	3.791	1.156	1.93
100.0	4.049	1.234	1.81
108.0	4.213	1.284	1.74
150.0	4.993	1.522	1.47
174.0	5.392	1.644	1.36
200.0	5.798	1.767	1.26
204.0	5.858	1.785	1.25
300.0	7.168	2.185	1.02
400.0	8.342	2.543	0.88
450.0	8.88	2.706	0.82
460.0	8.984	2.738	0.81
500.0	9.391	2.862	0.78
512.0	9.511	2.899	0.77
600.0	10.351	3.155	0.71
700.0	11.244	3.427	0.65
800.0	12.084	3.683	0.61
824.0	12.278	3.742	0.6

Page 4 of 12



35422-57

894.0	12.833	3.911	0.57
960.0	13.339	4.066	0.55
1000.0	13.639	4.157	0.54
1218.0	15.192	4.63	0.48
1250.0	15.41	4.697	0.47
1500.0	17.04	5.194	0.43
1700.0	18.266	5.567	0.4
1794.0	18.823	5.737	0.39
1800.0	18.858	5.748	0.39
2000.0	20.003	6.097	0.37
2100.0	20.559	6.266	0.36
2200.0	21.104	6.432	0.35
2300.0	21.64	6.596	0.34
2500.0	22.686	6.914	0.32
2700.0	23.701	7.224	0.31
3000.0	25.171	7.672	0.29
3400.0	27.048	8.244	0.27
3600.0	27.956	8.521	0.26
3700.0	28.403	8.657	0.26
3800.0	28.846	8.792	0.25
3900.0	29.284	8.925	0.25
4000.0	29.719	9.058	0.25
4100.0	30.149	9.189	0.24
4200.0	30.576	9.319	0.24
4300.0	30.999	9.448	0.24
4400.0	31.419	9.576	0.23
4500.0	31.835	9.703	0.23
4600.0	32.249	9.829	0.23
4700.0	32.659	9.954	0.22
4800.0	33.066	10.078	0.22
4900.0	33.47	10.201	0.22
5000.0	33.871	10.323	0.22
6000.0	37.742	11.503	0.19
8000.0	44.888	13.681	0.16
8800.0	47.579	14.501	0.15

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners. Revised: March 24, 2025

Page 5 of 12



35422-57

10000.0	51.475	15.689	0.14
12000.0	57.664	17.575	0.13
14000.0	63.552	19.37	0.12
15800.0	68.646	20.922	0.11

Material Specifications

Dielectric Material	Foam PE
Jacket Material	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	76.2 mm 3 in
Minimum Bend Radius, single Bend	38.1 mm 1.5 in
Number of Bends, minimum	15
Number of Bends, typical	30
Tensile Strength	91 kg 200.62 lb
Bending Moment	1.4 N-m 12.391 in lb
Flat Plate Crush Strength	1.4 kg/mm 78.396 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature	-40 °C to +60 °C (-40 °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
Fire Retardancy Test Method	NFPA 130-2010 UL 1666/CATVR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1 IEC 60754-2

Packaging and Weights

Cable weight

0.09 kg/m | 0.06 lb/ft



Page 6 of 12

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

Page 7 of 12







LDF1-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 1/4 in, black non-halogenated fire retardant jacket, B2ca s1a d0 a1 Compliant

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	LDF1-50
General Specifications	
Product Number	520100502/00
Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%
Dimensions	
Diameter Over Dielectric	6.858 mm 0.27 in
Diameter Over Jacket	9.017 mm 0.355 in
Inner Conductor OD	2.54 mm 0.1 in
Outer Conductor OD	7.874 mm 0.31 in
Nominal Size	1/4 in
Electrical Specifications	
Cable Impedance	50 ohm ±1 ohm
Capacitance	77 pF/m 23.47 pF/ft
dc Resistance, Inner Conductor	5.151 ohms/km 1.57 ohms/kft
dc Resistance, Outer Conductor	4.003 ohms/km 1.22 ohms/kft
dc Test Voltage	2200 V
Inductance	0.194 μH/m 0.059 μH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 15800 MHz

Page 8 of 12



Peak Power

Velocity

12.1 kW

86 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680–960 MHz	1.201	20.79
1700-2200 MHz	1.201	20.79
2200–2700 MHz	1.433	14.99

Attenuation

100.3940.1212.11.50.4830.14712.12.00.5580.1712.110.01.2540.3825.8320.01.7810.5434.1130.02.1880.6673.3450.02.8380.8652.5885.03.7241.1351.9688.03.7911.1561.93100.04.0491.2341.81108.04.2131.2641.74150.05.921.6441.3620.05.7981.7671.2620.45.8581.7851.2530.07.1682.5430.88450.08.842.7060.82460.08.9842.7380.8150.09.9112.6620.7851.09.5112.9990.7760.01.3513.1550.71	Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
2.00.5580.171.2110.01.2540.3825.8320.01.7810.5434.1130.02.1880.6673.3450.02.8380.8652.5885.03.7241.1551.9688.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.05.3921.6441.3620.05.7981.7671.2620.05.8581.7851.25300.07.1682.1850.88450.08.842.7060.82460.08.9442.380.8150.09.3912.8620.78512.09.5112.8990.7760.01.0313.1550.71	1.0	0.394	0.12	12.1
1001.2540.3825.8320.01.7810.5434.1130.02.1880.6673.3450.02.8380.8652.5885.03.7241.1351.9688.03.7911.561.93100.04.0491.2341.81108.04.2131.2841.74150.05.921.6441.3620.05.7981.7671.2620.05.581.7851.25300.07.1682.1850.8840.08.3422.5430.8246.08.942.7380.8150.09.9112.8920.7760.010.513.1550.71	1.5	0.483	0.147	12.1
20.01.7810.5434.1130.02.1880.6673.3450.02.8380.8652.5885.03.7241.1351.9688.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.04.9331.5221.47174.05.3921.6441.36200.05.7981.7671.26204.08.581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.912.8620.78512.09.5112.8990.77600.010.3513.1550.71	2.0	0.558	0.17	12.1
\$0.02.1880.6673.34\$0.02.8380.8652.58\$5.03.7241.1351.96\$8.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.04.9331.5221.47174.05.3921.6441.36200.05.7981.7671.26204.08.882.7851.02400.08.3422.5430.88450.08.882.7060.82460.09.9112.8620.78512.09.5112.8990.77600.01.03513.1550.71	10.0	1.254	0.382	5.83
50.02.8380.8652.5885.03.7241.1351.9688.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.08.5881.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.9112.8620.78512.09.5112.8990.77600.010.513.1550.71	20.0	1.781	0.543	4.11
85.03.7241.1351.9688.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.08.8581.7851.25300.07.1682.1850.88450.08.842.7060.82460.08.9842.7380.8150.09.9112.8620.78512.00.5112.8990.71	30.0	2.188	0.667	3.34
88.03.7911.1561.93100.04.0491.2341.81108.04.2131.2841.74150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.9842.7060.82460.09.9112.8620.78512.09.5112.8990.77600.01.0313.1550.71	50.0	2.838	0.865	2.58
100.04.0491.2341.81108.04.2131.2841.74150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.9842.7060.82460.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	85.0	3.724	1.135	1.96
108.04.2131.2841.74150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.9112.8620.7850.09.5112.8990.77600.010.3513.1550.71	88.0	3.791	1.156	1.93
150.04.9931.5221.47174.05.3921.6441.36200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.9112.8620.78512.09.5112.8990.77600.010.3513.1550.71	100.0	4.049	1.234	1.81
174.05.3921.6441.36200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.9142.7380.81500.09.5112.8990.77600.010.3513.1550.71	108.0	4.213	1.284	1.74
200.05.7981.7671.26204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.09.9412.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	150.0	4.993	1.522	1.47
204.05.8581.7851.25300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.08.9842.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	174.0	5.392	1.644	1.36
300.07.1682.1851.02400.08.3422.5430.88450.08.882.7060.82460.08.9842.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	200.0	5.798	1.767	1.26
400.08.3422.5430.88450.08.882.7060.82460.08.9842.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	204.0	5.858	1.785	1.25
450.08.882.7060.82460.08.9842.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	300.0	7.168	2.185	1.02
460.08.9842.7380.81500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	400.0	8.342	2.543	0.88
500.09.3912.8620.78512.09.5112.8990.77600.010.3513.1550.71	450.0	8.88	2.706	0.82
512.0 9.5112.8990.77 600.0 10.3513.1550.71	460.0	8.984	2.738	0.81
600.0 10.351 3.155 0.71	500.0	9.391	2.862	0.78
	512.0	9.511	2.899	0.77
	600.0	10.351	3.155	0.71
700.0 11.244 3.427 0.65	700.0	11.244	3.427	0.65
800.0 12.084 3.683 0.61	800.0	12.084	3.683	0.61

©2025 ANDREW, an Amphenol company. All rights reserved. Amphenol and ANDREW are registered trademarks of Amphenol and/or its affiliates in the U.S. and other countries. All product names, trademarks and registered trademarks are property of their respective owners. Revised: March 12, 2025

Page 9 of 12



824.0	12.278	3.742	0.6
894.0	12.833	3.911	0.57
960.0	13.339	4.066	0.55
1000.0	13.639	4.157	0.54
1218.0	15.192	4.63	0.48
1250.0	15.41	4.697	0.47
1500.0	17.04	5.194	0.43
1700.0	18.266	5.567	0.4
1794.0	18.823	5.737	0.39
1800.0	18.858	5.748	0.39
2000.0	20.003	6.097	0.37
2100.0	20.559	6.266	0.36
2200.0	21.104	6.432	0.35
2300.0	21.64	6.596	0.34
2500.0	22.686	6.914	0.32
2700.0	23.701	7.224	0.31
3000.0	25.171	7.672	0.29
3400.0	27.048	8.244	0.27
3600.0	27.956	8.521	0.26
3700.0	28.403	8.657	0.26
3800.0	28.846	8.792	0.25
3900.0	29.284	8.925	0.25
4000.0	29.719	9.058	0.25
4100.0	30.149	9.189	0.24
4200.0	30.576	9.319	0.24
4300.0	30.999	9.448	0.24
4400.0	31.419	9.576	0.23
4500.0	31.835	9.703	0.23
4600.0	32.249	9.829	0.23
4700.0	32.659	9.954	0.22
4800.0	33.066	10.078	0.22
4900.0	33.47	10.201	0.22
5000.0	33.871	10.323	0.22
6000.0	37.742	11.503	0.19
8000.0	44.888	13.681	0.16



8800.0	47.579	14.501	0.15
10000.0	51.475	15.689	0.14
12000.0	57.664	17.575	0.13
14000.0	63.552	19.37	0.12
15800.0	68.646	20.922	0.11

Material Specifications

Dielectric Material	Foam PE
Jacket Material	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	76.2 mm 3 in
Minimum Bend Radius, single Bend	38.1 mm 1.5 in
Number of Bends, minimum	15
Number of Bends, typical	30
Tensile Strength	91 kg 200.62 lb
Bending Moment	1.4 N-m 12.391 in lb
Flat Plate Crush Strength	1.4 kg/mm 78.396 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature	-40 °C to +60 °C (-40 °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
EN50575 CPR Cable EuroClass Fire Performance	B2ca
EN50575 CPR Cable EuroClass Smoke Rating	s1a
EN50575 CPR Cable EuroClass Droplets Rating	d0
EN50575 CPR Cable EuroClass Acidity Rating	al
Fire Retardancy Test Method	IEC 60332-1-2 IEC 60332-3C-24 NFPA 130-2010 UL 1666 /CATVR/CMR UL 1685

Page 11 of 12



Smoke Index Test Method

Toxicity Index Test Method

IEC 61034

IEC 60754-1 | IEC 60754-2

Packaging and Weights

Cable weight

0.09 kg/m | 0.06 lb/ft

Regulatory Compliance/Certifications

Agency	Classification
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.andrew.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant

Page 12 of 12

