# L2A-PNMNM-180

LDF2-50 SureFlex® Jumper with interface types N Male and N Male, 180 ft

### Product Classification

Product Type	SureFlex® standard
Product Brand	HELIAX®   SureFlex®
Product Series	LDF2-50
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	54.878 m   180.046 ft
Nominal Size	3/8 in

### VSWR/Return Loss

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

## Jumper Assembly Sample Label



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#### **Environmental Specifications**

Immersion Test Method		Meets IEC 60529:2001, IP68 in mated condition
Included Products		
35422-23	-	Heat Treated LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket
LDF2-50	_	LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket



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Heat Treated LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

### Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®   SureFlex®
Product Series	LDF2-50
General Specifications	
Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%
Dimensions	
Diameter Over Dielectric	8.636 mm   0.34 in
Diameter Over Jacket	11.176 mm   0.44 in
Inner Conductor OD	3.048 mm   0.12 in
Outer Conductor OD	9.652 mm   0.38 in
Nominal Size	3/8 in
Electrical Specifications	
Cable Impedance	50 ohm ±1 ohm
Capacitance	75.5 pF/m   23.012 pF/ft
dc Resistance, Inner Conductor	3.478 ohms/km   1.06 ohms/kft
dc Resistance, Outer Conductor	2.854 ohms/km   0.87 ohms/kft
dc Test Voltage	2500 V
Inductance	0.19 μH/m   0.058 μH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 13000 MHz
Peak Power	15.6 kW

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#### Velocity

85 %

### Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.332	0.101	15.6
1.5	0.407	0.124	15.6
2.0	0.471	0.143	15.6
10.0	1.059	0.323	7.28
20.0	1.503	0.458	5.13
30.0	1.847	0.563	4.17
50.0	2.397	0.73	3.22
85.0	3.146	0.959	2.45
88.0	3.203	0.976	2.41
100.0	3.421	1.043	2.25
108.0	3.559	1.085	2.17
150.0	4.219	1.286	1.83
174.0	4.558	1.389	1.69
200.0	4.901	1.494	1.57
204.0	4.952	1.509	1.56
300.0	6.062	1.847	1.27
400.0	7.057	2.151	1.09
450.0	7.513	2.29	1.03
460.0	7.601	2.317	1.01
500.0	7.947	2.422	0.97
512.0	8.048	2.453	0.96
600.0	8.761	2.67	0.88
700.0	9.519	2.901	0.81
800.0	10.232	3.119	0.75
824.0	10.398	3.169	0.74
894.0	10.869	3.313	0.71
960.0	11.299	3.444	0.68
1000.0	11.554	3.521	0.67
1218.0	12.874	3.924	0.6
1250.0	13.059	3.98	0.59
1500.0	14.446	4.403	0.53

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1700.0	15.49	4.721	0.5
1794.0	15.964	4.866	0.48
1800.0	15.994	4.875	0.48
2000.0	16.97	5.172	0.45
2100.0	17.443	5.316	0.44
2200.0	17.908	5.458	0.43
2300.0	18.365	5.597	0.42
2500.0	19.257	5.869	0.4
2700.0	20.122	6.133	0.38
3000.0	21.376	6.515	0.36
3400.0	22.978	7.003	0.34
3600.0	23.754	7.24	0.32
3700.0	24.136	7.356	0.32
3800.0	24.514	7.471	0.31
3900.0	24.888	7.586	0.31
4000.0	25.26	7.699	0.31
4100.0	25.627	7.811	0.3
4200.0	25.992	7.922	0.3
4300.0	26.354	8.032	0.29
4400.0	26.713	8.142	0.29
4500.0	27.069	8.25	0.28
4600.0	27.422	8.358	0.28
4700.0	27.773	8.465	0.28
4800.0	28.12	8.571	0.27
4900.0	28.466	8.676	0.27
5000.0	28.809	8.781	0.27
6000.0	32.121	9.79	0.24
8000.0	38.244	11.656	0.2
8800.0	40.551	12.359	0.19
10000.0	43.894	13.378	0.18
12000.0	49.209	14.998	0.16

# Material Specifications

#### Dielectric Material

Foam PE PE

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Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Corrugated copper
Mechanical Specifications	

Minimum Bend Radius, multiple Bends	95.25 mm   3.75 in
Minimum Bend Radius, single Bend	40.64 mm   1.6 in
Number of Bends, minimum	15
Number of Bends, typical	50
Tensile Strength	113 kg   249.122 lb
Bending Moment	1.9 N-m   16.816 in lb
Flat Plate Crush Strength	2 kg/mm   111.995 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

0.12 kg/m | 0.081 lb/ft

### Regulatory Compliance/Certifications

#### Classification

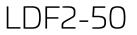
ISO 9001:2015

Agency

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

n Amphenol company

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LDF2-50, HELIAX® Low Density Foam Coaxial Cable, corrugated copper, 3/8 in, black PE jacket

### Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®   SureFlex®
Product Series	LDF2-50
General Specifications	
Product Number	520098202/00   SZ520098202/00
Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%
Dimensions	
Diameter Over Dielectric	8.636 mm   0.34 in
Diameter Over Jacket	11.176 mm   0.44 in
Inner Conductor OD	3.124 mm   0.123 in
Outer Conductor OD	9.652 mm   0.38 in
Nominal Size	3/8 in
Electrical Specifications	
Cable Impedance	50 ohm ±1 ohm
Capacitance	75.5 pF/m   23.012 pF/ft
dc Resistance, Inner Conductor	3.478 ohms/km   1.06 ohms/kft
dc Resistance, Outer Conductor	2.854 ohms/km   0.87 ohms/kft
dc Test Voltage	2500 V
Inductance	0.19 μH/m   0.058 μH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V
Operating Frequency Band	1 – 13000 MHz

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# LDF2-50

Peak Power	15.6 kW
Velocity	85 %

## Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.332	0.101	15.6
1.5	0.407	0.124	15.6
2.0	0.471	0.143	15.6
10.0	1.059	0.323	7.28
20.0	1.503	0.458	5.13
30.0	1.847	0.563	4.17
50.0	2.397	0.73	3.22
85.0	3.146	0.959	2.45
88.0	3.203	0.976	2.41
100.0	3.421	1.043	2.25
108.0	3.559	1.085	2.17
150.0	4.219	1.286	1.83
174.0	4.558	1.389	1.69
200.0	4.901	1.494	1.57
204.0	4.952	1.509	1.56
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512.0	8.048	2.453	0.96
600.0	8.761	2.67	0.88
700.0	9.519	2.901	0.81
800.0	10.232	3.119	0.75
824.0	10.398	3.169	0.74
894.0	10.869	3.313	0.71
960.0	11.299	3.444	0.68
1000.0	11.554	3.521	0.67
1218.0	12.874	3.924	0.6
1250.0	13.059	3.98	0.59

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# LDF2-50

1500.0	14.446	4.403	0.53
1700.0	15.49	4.721	0.5
1794.0	15.964	4.866	0.48
1800.0	15.994	4.875	0.48
2000.0	16.97	5.172	0.45
2100.0	17.443	5.316	0.44
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8800.0	40.551	12.359	0.19
10000.0	43.894	13.378	0.18
12000.0	49.209	14.998	0.16
Material Specifications			

#### Material Specifications

#### Dielectric Material Jacket Material

Foam PE PE



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# LDF2-50

Inner Conductor Material	Copper-clad aluminum wire	
Outer Conductor Material	Corrugated copper	
Mechanical Specifications		
Minimum Bend Radius, multiple Bends	95.25 mm   3.75 in	
Minimum Bend Radius, single Bend	40.64 mm   1.6 in	
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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

0.12 kg/m | 0.081 lb/ft

### Regulatory Compliance/Certifications

Agency	Classification
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



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