

#### Type N Male Right Angle Positive Lock for 3/8 in LDF2-50 cable

### Product Classification

Product Type	Wireless and radiating connector
Product Brand	HELIAX®
Product Series	LDF2-50
General Specifications	
Body Style	Right angle
Cable Family	LDF2-50
Inner Contact Attachment Method	Captivated
Inner Contact Plating	Silver
Interface	N Male
Mounting Angle	Right angle
Outer Contact Attachment Method	Ring-flare
Outer Contact Plating	Trimetal
Pressurizable	No
Dimensions	
Height	20.57 mm   0.81 in
Width	22.35 mm   0.88 in
Length	58.42 mm   2.3 in
Right Angle Length	20.57 mm   0.81 in
Diameter	22.35 mm   0.88 in
Nominal Size	3/8 in

## Outline Drawing

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# **Electrical Specifications**

3rd Order IMD Test MethodTwo +43 dBm carriersInsertion Loss Coefficient, typical0.05Average Power at Frequency0.7 kW @ 900 MHzCable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MHzOperating Frequency Band0-10000 MHzPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 VShielding Effectiveness-110 dB	3rd Order IMD at Frequency	-107 dBm @ 910 MHz
Average Power at Frequency0.7 kW @ 900 MHzCable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	3rd Order IMD Test Method	Two +43 dBm carriers
Cable Impedance50 ohmConnector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Insertion Loss Coefficient, typical	0.05
Connector Impedance50 ohmdc Test Voltage2500 VInner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Average Power at Frequency	0.7 kW @ 900 MHz
dc Test Voltage2500 VInner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 − 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Cable Impedance	50 ohm
Inner Contact Resistance, maximum1 mOhmInsulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Connector Impedance	50 ohm
Insulation Resistance, minimum5000 MOhmOperating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	dc Test Voltage	2500 V
Operating Frequency Band0 - 10000 MHzOuter Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Inner Contact Resistance, maximum	1 m0hm
Outer Contact Resistance, maximum0.25 mOhmPeak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Insulation Resistance, minimum	5000 MOhm
Peak Power, maximum10 kWRF Operating Voltage, maximum (vrms)707 V	Operating Frequency Band	0 – 10000 MHz
<b>RF Operating Voltage, maximum (vrms)</b> 707 V	Outer Contact Resistance, maximum	0.25 m0hm
	Peak Power, maximum	10 kW
Shielding Effectiveness -110 dB	RF Operating Voltage, maximum (vrms)	707 V
	Shielding Effectiveness	-110 dB

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
0–960 MHz	1.052	31.92

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960–2200 MHz	1.06	30.71
2200–2700 MHz	1.065	30.04
2700–4000 MHz	1.115	25.29
4000–6000 MHz	1.16	22.61
6000-8000 MHz	1.185	21.45
8000–10000 MHz	1.185	21.45

# Mechanical Specifications

Attachment Durability	25 cycles
Connector Retention Tensile Force	671.68 N   151 lbf
Connector Retention Torque	2.7 N-m   23.897 in lb
Coupling Nut Proof Torque	1.7 N-m   15.046 in lb
Coupling Nut Retention Force	449.98 N   101.16 lbf
Coupling Nut Retention Force Method	MIL-C-39012C-3.25, 4.6.22
Insertion Force	27.98 N   6.29 lbf
Insertion Force Method	IEC 61169-1:15.2.4
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Mechanical Shock Test Method	IEC 60068-2-27

# Environmental Specifications

Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Attenuation, Ambient Temperature	20 °C   68 °F
Average Power, Ambient Temperature	40 °C   104 °F
Average Power, Inner Conductor Temperature	100 °C   212 °F
Corrosion Test Method	IEC 60068-2-11
Immersion Depth	1 m
Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68
Moisture Resistance Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6



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### Packaging and Weights

#### Weight, net

83.48 g | 0.184 lb

### Regulatory Compliance/Certifications

#### Agency Classification

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

## \* Footnotes

Insertion Loss Coefficient, typical	$0.05\sqrt{-}$ freq (GHz) (not applicable for elliptical waveguide)
Immersion Depth	Immersion at specified depth for 24 hours

