



COAXIAL

# Termination

## KARN-50+

Mini-Circuits

50Ω DC to 8 GHz N-Type Male

### FEATURES

- Wideband coverage, DC to 8 GHz
- Useable to 9 GHz (Return Loss, 20 dB typ. at 9 GHz)
- Rugged Construction



Generic photo used for illustration purposes only

### APPLICATIONS

- Cellular Communications
- Satellite Communications
- Defense Communications
- Test Setup

Model No.	KARN-50+
Case Style	LL718
Connectors	N-Type-Male

**+RoHS Compliant**  
 The +Suffix identifies RoHS Compliance.  
 See our website for methodologies and qualifications

### ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC		8	GHz
Impedance		50			Ohms
Return Loss	DC - 0.5	30	—	—	dB
	DC - 1	30	—	—	
	DC - 2	29	—	—	
	DC - 5	27	—	—	
	DC - 8	20	—	—	
Power Rating*	DC - 8	—	—	2	W

\*At 70°C, derate linearly at 0.025W/°C at 100°C.

### ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C

Permanent damage may occur if any of these limits are exceeded.

REV. F  
 ECO-012138  
 KARN-50+  
 MCL NY  
 231017





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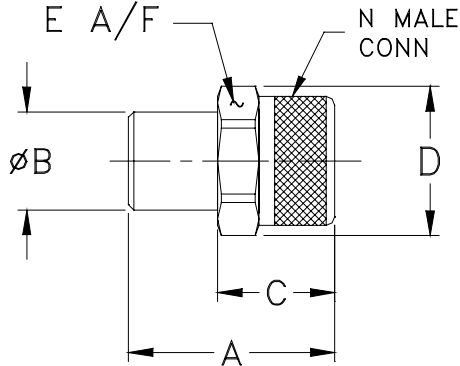
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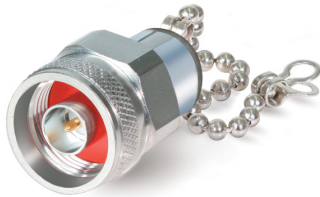
50Ω DC to 8 GHz N-Type Male

### OUTLINE DRAWING



### OUTLINE DIMENSIONS (Inch/mm)

A	B	C	D	E	wt
1.18	0.56	0.67	0.85	0.787	grams
29.97	14.22	17.02	21.59	19.99	30.0



To order KARN-50+ with 3½ length chain and end coupling with .130" diameter mtg. hole, use part no. [KARN-50CN+](#).

### TYPICAL PERFORMANCE DATA

Frequency (MHz)	Return Loss (dB)
100	46.31
600	46.36
1000	44.26
2000	39.83
3000	37.27
4000	35.14
5000	33.72
6000	34.35
7000	34.72
8000	34.96



## Typical Performance Data

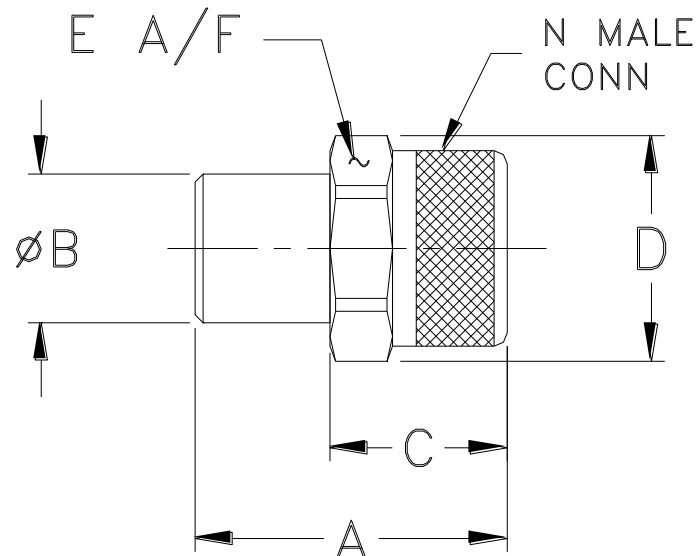
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## Typical Performance Curves



## Outline Dimensions

LL718



CASE #.	A	B	C	D	E	WT GRAMS
LL718	1.18 (30.00)	.56 (14.22)	.67 (17.02)	.85 (21.59)	.787 (20.00)	30.0

Dimensions are in inches (mm). Tolerances: 2Pl.  $\pm .03$ ; 3Pl.  $\pm .015$

### Notes:

1. Case Material: Brass.
2. Case Finish: Tri-metal (Cu-Sn-Zn) plate.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

<b>Specification</b>	<b>Test/Inspection Condition</b>	<b>Reference/Spec</b>
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I