COAXIAL

Termination

KARN-50-18+

50Ω DC to 18 GHz N-Type-Male

FEATURES

- Wideband Coverage, DC to 18 GHz
- 2 Watt Rating
- Rugged Construction
- Brass Body with Trimetal Finish

Generic photo used for illustration purposes only

Model No.	KARN-50-18+
Case Style	LL718
Connectors	N-Type-Male

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

APPLICATIONS

- Cellular Communications
- Satellite Communications
- Defense communications
- Test Set-up

PRODUCT OVERVIEW

Mini-Circuits' KARN-50-18+ is a wideband 50Ω termination capable of absorbing signals up to 2W from DC to 18000 MHz. This model provides excellent return loss across its entire operating frequency range, effectively dissipating power with minimal signal reflection. The unit features and N-Male connector with rugged construction for a long life of use and comes in a Cu-Sn-Zn plated brass case.

KEY FEATURES

Features	Advantages
Wideband, DC to 18 GHz	Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss, 18 dB min. up to 18 GHz	Good return loss minimizes signal reflections across multiple-decade frequency range
Power handling	KARN-50-18+ meets a wide range of system power requirements
Wide operating temperature range, -55 to +100˚C	Withstands tough operating conditions and is suitable for use near high power componentry where heat rise is common

REV. C
ECO-015184
KARN-50-18+
MCL NY
240315

Termination

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50Ω DC to 18 GHz N-Type-Male

ELECTRICAL SPECIFICATIONS

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	18	GHz
Impedance			50		Ohm
Return Loss	DC - 0.5	33	—	—	dB
	DC - 1	33	—	—	
	DC - 2	30	—	—	
	DC - 4	30	—	—	
	DC - 8	26	—	—	
	DC - 12	20	—	—	
	DC - 18	18	—	—	
Power Rating[1]	DC - 18	—	—	2	W

1. At 70°C, derate linearly at 0.025W/°C.

ABSOLUTE MAXIMUM RATINGS

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

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

Termination

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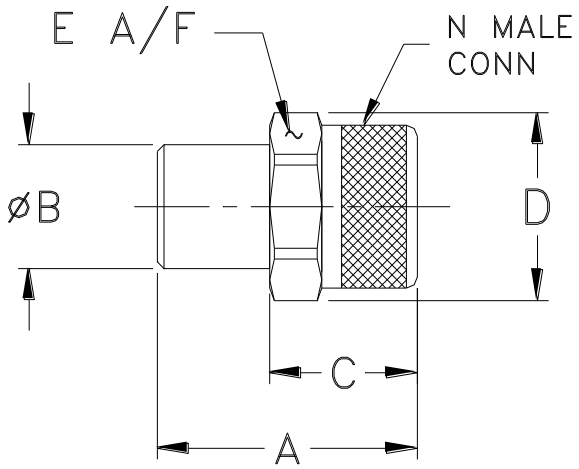
COAXIAL CONNECTIONS

Connectors	N-Type-Male

OUTLINE DRAWING

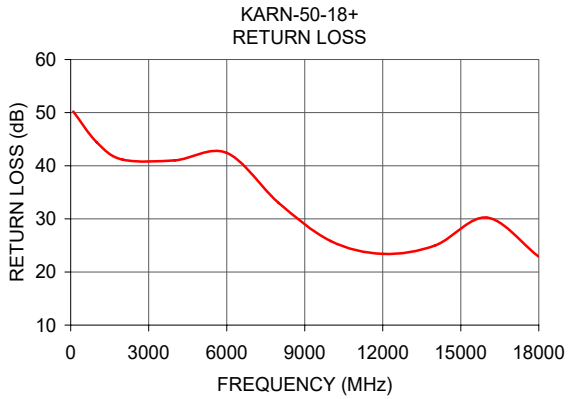


OUTLINE DIMENSIONS (Inch / mm)

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

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Return Loss (dB)
100	50.21
1000	44.44
2000	41.16
4000	41.02
6000	42.43
8000	32.99
10000	25.82
12000	23.41
14000	24.96
16000	30.24
18000	22.88



NOTES

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

Termination 50 Ω , N-TYPE

KARN-50-18+

Typical Performance Data

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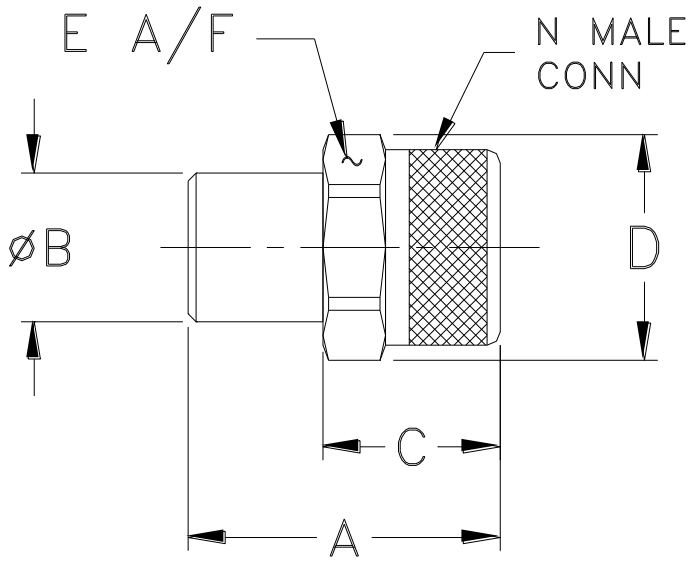
100	50.21
1000	44.44
2000	41.16
4000	41.02
6000	42.43
8000	32.99
10000	25.82
12000	23.41
14000	24.96
16000	30.24
18000	22.88

Typical Performance Curves

Case Style LL

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. ± .03; 3Pl. ± .015

Notes:

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

Mini-Circuits

Environmental Specifications ENV28

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.

Specification	Test/Inspection Condition	Reference/Spec
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