



**THE DATASHEET OF  
KARN-50-18+**





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

### APPLICATIONS

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



Generic photo used for illustration purposes only

<b>Model No.</b>	KARN-50-18+
<b>Case Style</b>	LL718
<b>Connectors</b>	N-Type-Male

#### +RoHS Compliant

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

### 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 an 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+  
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240315





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### 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 <sup>1</sup>	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.



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## KARN-50-18+

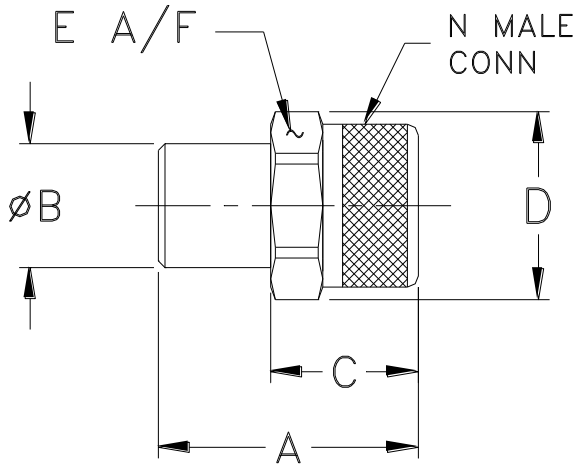
Mini-Circuits

50Ω DC to 18 GHz N-Type-Male

### COAXIAL CONNECTIONS

Connectors	N-Type-Male
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### OUTLINE DRAWING



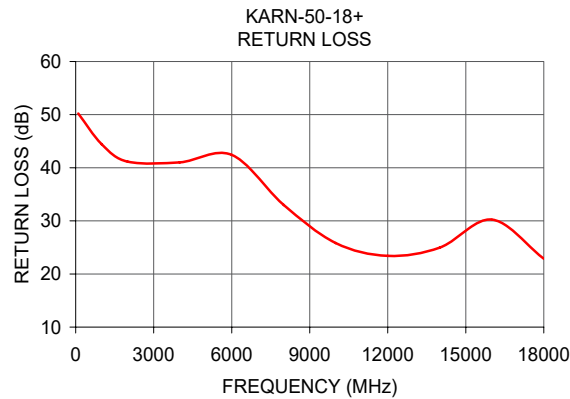
### OUTLINE DIMENSIONS (Inch/mm)

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

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/terms/viewterm.html)

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