



COAXIAL

Termination

KARN-50-18+

50Ω DC to 18 GHz, N-Type-Male

THE BIG DEAL

- Wideband coverage, DC to 18000 MHz
- 2 watt rating
- Rugged construction
- Brass body with trimetal finish



Generic photo used for illustration purposes only

APPLICATIONS

- Cellular communications
- Satellite communications
- Defense communications
- Test set-up

| | |
|-------------------|-------------|
| 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

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 |



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ELECTRICAL SPECIFICATIONS

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Units |
|-----------------|-----------------|------|------|------|-------|
| 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* | DC - 18 | — | — | 2 | W |

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

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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Termination

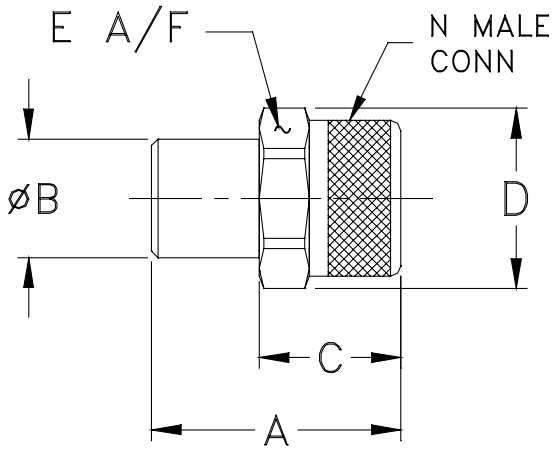
KARN-50-18+

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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 |

Note: Please refer to case style drawing for details



Termination

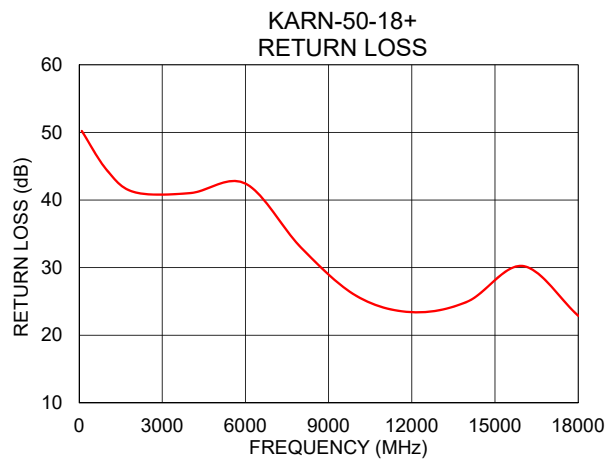
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TYPICAL PERFORMANCE DATA AND CHARTS

| 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

