

Mini-Circuits 50 Ω DC to 40 GHz 2.92 mm-Male

THE BIG DEAL

- Ultra-Wideband, DC to 40 GHz
- Excellent Return Loss, 35 dB up to 4 GHz; 20 dB up to 40 GHz
- Input Power Handling up to 1W
- Mates with SMA, K, and 3.5mm Connector Types



ANNE-50K+

Generic photo used for illustration purposes only

| Model No. | ANNE-50K+ | | |
|------------|--------------|--|--|
| Case Style | LL2699-1 | | |
| Connectors | 1.85 mm-Male | | |

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

APPLICATIONS

- Cellular Communications
- Satellite Communications
- Test Set-up
- Defense & Radar

PRODUCT OVERVIEW

Mini-Circuits' ANNE-50K+ is an ultra-wideband 50 Ω termination capable of absorbing signals up to 1W from DC to 40 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has a 2.92mm-male connector, allowing connections with SMA, K and 3.5mm type connectors. The unit features rugged construction for a long life of use and comes in a gold-plated brass case measuring only 0.58"(I) x 0.37" (dia.).

KEY FEATURES

| Features | Advantages | | |
|--|--|--|--|
| Ultra-Wideband, DC to 40 GHz | Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use. | | |
| Good Return Loss: • 35 dB up to 4000 MHz • 20 dB up to 40000 MHz | Good return loss minimizes signal reflections across multiple-decade frequency range. | | |
| 2.92mm-Male Connector mates with SMA, K and 3.5mm connectors | Provides flexible connection options, avoiding the need for extra adapters. | | |
| Power Handling up to 1W | ANNE-50K+ meets a wide range of system power requirements in a small device size. | | |
| 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. B ECO-016342 ANNE-50K+ MCL NY 230104

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Termination



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50Ω DC to 40 GHz 2.92 mm-Male

ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter | Condition (GHz) | Min. | Тур. | Max. | Unit |
|--------------------------|-----------------|------|------|------|------|
| Frequency Range | | DC | — | 40 | GHz |
| Impedance | | | 50 | | Ohms |
| Return Loss | DC - 4 | 28 | 35 | _ | dB |
| | 4 - 18 | 20 | 30 | — | |
| | 18 - 30 | 19 | 25 | — | |
| | 30 - 40 | 16 | 20 | _ | |
| Input Power ¹ | DC - 40 | _ | _ | 1 | W |

1. At 25°C, derate linearly to 350 mW at 100°C.

ABSOLUTE MAXIMUM RATINGS¹

| Parameter | Ratings | | | |
|-----------------------|-------------------|--|--|--|
| Operating Temperature | -55 °C to +100 °C | | | |
| Storage Temperature | -55 °C to +100 °C | | | |
| 1.0 | | | | |

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



ANNE-50K+

DC to 40 GHz 2.92 mm-Male 50Ω

OUTLINE DRAWING



Weight: 4.0 grams Dimensions are in inches [mm]. Tolerances: 2 PL. ± .03; 3 PL ± .010



Termination



Mini-Circuits

50Ω DC to 65 GHz 2.92 mm Male

TYPICAL PERFORMANCE DATA

| Frequency (MHz) | Return Loss (dB) | |
|--------------------|---------------------|--|
| 50 | 39.78 | |
| 2000 | 43.28 | |
| 4000 | 38.37 | |
| 7000 | 30.68 | |
| 10000 | 31.25 | |
| 13000 | 39.09 | |
| 15000 | 32.61 | |
| 18000 | 31.38 | |
| 21000 | 36.08 | |
| 24000 | 31.36 | |
| 27000 | 30.03 | |
| 30000 | 25.94 | |
| 34000 | 30.36 | |
| 37000 | 25.67 | |
| 40000 | 21.72 | |



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