

# Coaxial Termination

## ANNE-50E+

50Ω 1.85 mm DC to 65 GHz

### The Big Deal

- Ultra-wideband, DC to 65 GHz
- Excellent return loss, 22 dB typ. up to 40 GHz; 20 dB typ. up to 65 GHz
- Input power handling up to 1W
- Mates with 2.4mm and V connectors



CASE STYLE: LL2587

### Product Overview

Mini-Circuits' ANNE-50E+ is an ultra-wideband 50Ω termination capable of absorbing signals up to 1W from DC to 65 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has a 1.85mm-male connector, mechanically compatible with 2.4mm-female and V female connectors. The unit features rugged construction for a long life of use and comes in a passivated stainless steel case measuring only 0.69" (l) x 0.36" (dia.).

### Key Features

| Feature  | Advantages   |
|--|--|
| Ultra-wideband, DC to 65 GHz   | Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use. |
| Good return loss: <ul style="list-style-type: none"><li>• 26 dB up to 18 GHz</li><li>• 22 dB up to 40 GHz</li><li>• 20 dB up to 65 GHz</li></ul> | Good return loss minimizes signal reflections across multiple-decade frequency range.  |
| 1.85 mm connector mates with 2.4 mm and V connectors   | Provides flexible connection options, avoiding the need for extra adapters.  |
| Power handling up to 1W  | ANNE-50E+ 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 components where heat rise is common.          |

#### 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/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp)



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1.85 mm

ANNE-50E+

50Ω DC to 65 GHz

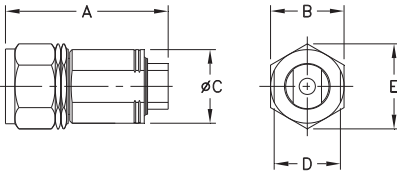
## Maximum Ratings

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.

## Outline Drawing



## Outline Dimensions (inch/mm)

| A    | B    | C   | D    | E    | wt    |
|------|------|-----|------|------|-------|
| .69  | .312 | .31 | .281 | .36  | grams |
| 17.5 | 7.92 | 7.9 | 7.14 | 9.14 | 4.6   |

## Features

- wideband coverage, DC to 65 GHz
- return loss, 22 dB typ. up to 40 GHz and 20 dB typ. up to 65 GHz
- rugged construction
- mechanically compatible with 2.4 mm connectors

## Applications

- test and measurement equipment
- test labs
- defense and aerospace
- 5G applications
- Q and V band communication links



Generic photo used for illustration purposes only

CASE STYLE: LL2587

| Connector | Model     |
|-----------|-----------|
| 1.85 mm-M | ANNE-50E+ |

## +RoHS Compliant

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

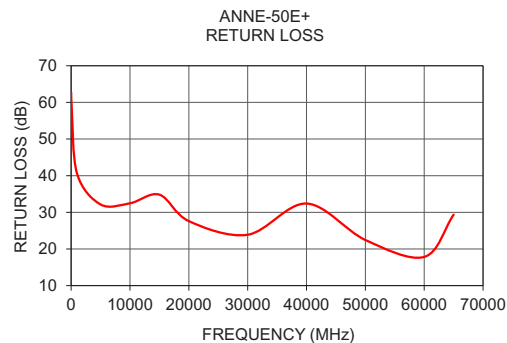
## Electrical Specifications at 25°C

| Parameter                | Condition (GHz) | Min. | Typ. | Max. | Unit |
|--------------------------|-----------------|------|------|------|------|
| Frequency Range          |                 | DC   | —    | 65   | GHz  |
| Impedance                |                 |      | 50   |      | Ohms |
| Return Loss              | DC - 18         | 20.8 | 26   | —    | dB   |
|                          | 18 - 40         | 17.7 | 22   | —    |      |
|                          | 40 - 65         | 14.7 | 20   | —    |      |
| Input Power <sup>1</sup> | DC - 65         | —    | —    | 1    | W    |

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

## Typical Performance Data

| Frequency (MHz) | Return Loss (dB) |
|-----------------|------------------|
| 10              | 62.69            |
| 100             | 58.55            |
| 1000            | 40.59            |
| 5000            | 32.14            |
| 10000           | 32.46            |
| 15000           | 34.82            |
| 20000           | 27.60            |
| 30000           | 23.88            |
| 40000           | 32.40            |
| 50000           | 22.45            |
| 60000           | 17.83            |
| 65000           | 29.36            |



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