



Mini-Circuits

COAXIAL

# Termination

ANNE-50E+

50Ω DC to 65 GHz 1.85 mm Male

## 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



Generic photo used for illustration purposes only

Model No.	ANNE-50E+
Case Style	LL2587
Connectors	1.85 mm-Male

## +RoHS Compliant

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

## APPLICATIONS

- Test and Measurement Equipment
- Test Labs
- Defense and Aerospace
- 5G Applications
- Q and V band Communication Links

## 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

Features	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.





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## 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.

ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

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

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





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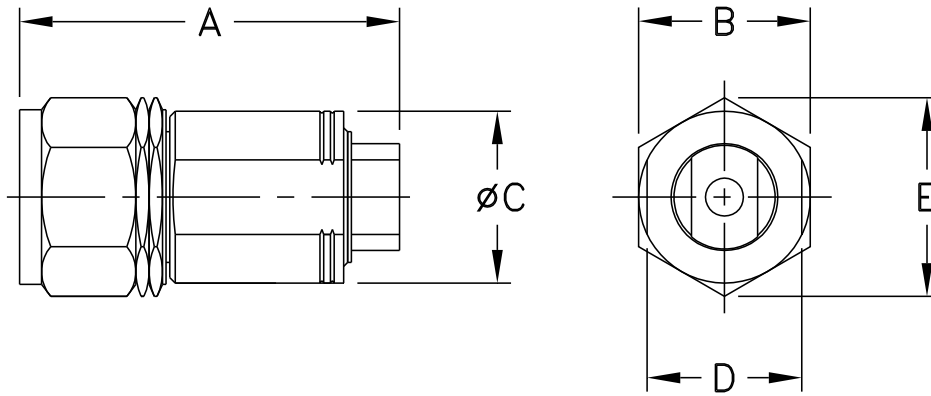
# Termination

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## 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



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# Termination

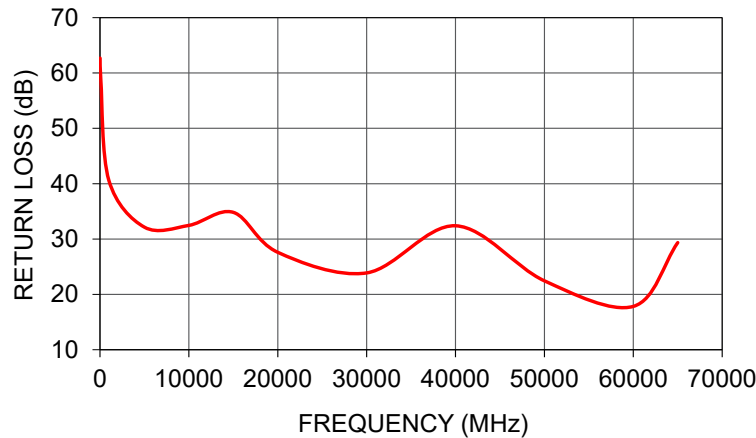
ANNE-50E+

50Ω DC to 65 GHz 1.85 mm Male

## 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

ANNE-50E+  
RETURN LOSS



### NOTES

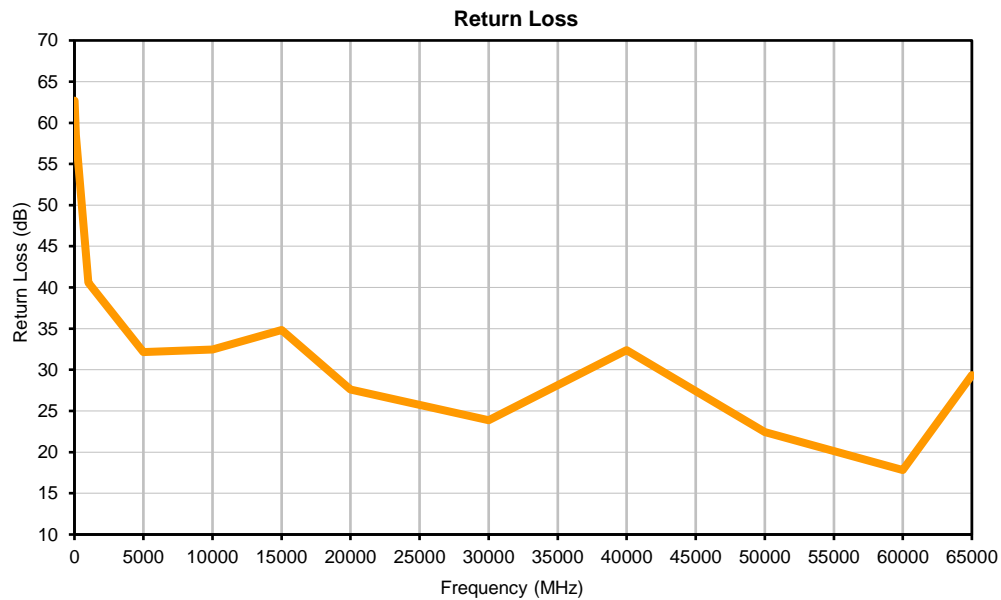
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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*Typical Performance Data*

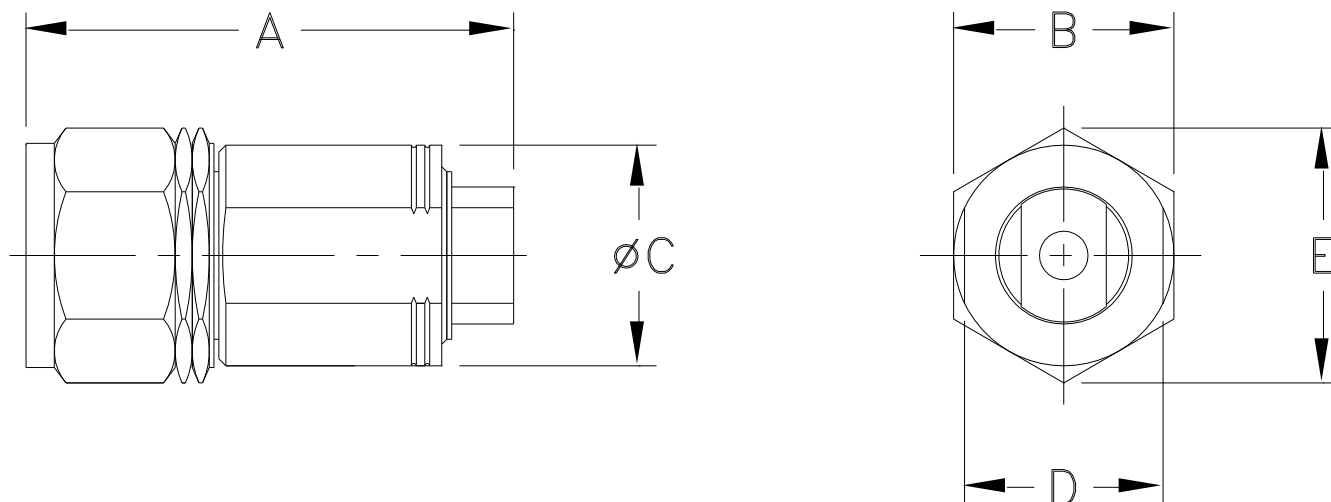
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60000	17.83
65000	29.36

## Typical Performance Curves



## Outline Dimensions

LL2587



CASE #	A	B	C	D	E	WT. GRAM
LL2587	.69 (17.5)	.312 (8.00)	.31 (7.9)	.281 (7.14)	.36 (9.14)	4.6

Dimensions are in inches (mm). Tolerances: 2Pl.  $\pm .030$ ; 3Pl.  $\pm .015$

### Notes:

1. Case material: Stainless Steel.
2. Case Finish: Passivated.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS



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