COAXIAL

Termination

ANNE-50V+

50Ω DC to 50 GHz 2.4 mm Male

THE BIG DEAL

- Ultra-Wideband, DC to 50 GHz
- Excellent Return Loss, 28 dB typ. up to 18 GHz; 20 dB typ. up to 50 GHz
- Input Power Handling up to 1W
- Mates with 1.85 mm Connector

Generic photo used for illustration purposes only

Model No.	ANNE-50V+
Case Style	LL2539
Connectors	2.4 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-50V+ is an ultra-wideband 50Ω termination capable of absorbing signals up to 1 W from DC to 50 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has a 2.4 mm-male connector, mechanically compatible with 2.4 mm female and 1.85 mm female connectors. The unit features rugged construction for a long life of use and comes in a passivated stainless steel case measuring only 0.67"(l) x 0.31" (dia.).

KEY FEATURES

Features	Advantages
Ultra-Wideband, DC to 50 GHz	Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use.
Good Return Loss: • 28 dB up to 18 GHz • 20 dB up to 50 GHz	Good return loss minimizes signal reflections across multiple-decade frequency range.
2.4 mm connector mates with 1.85 mm connectors	Provides lexible connection options, avoiding the need for extra adapters.
Power Handling up to 1 W	ANNE-50V+ 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. A
ECO-016342
ANNE-50V+
MCL NY
260618

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ELECTRICAL SPECIFICATIONS AT 25 °C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	50	GHz
Impedance			50		Ohms
Return Loss	DC - 18	23	28	—	dB
	18 - 35	17.7	22	—	
	35 - 50	14.7	20	—	
Input Power[1]	DC - 50	—	—	1	W

1. At 25 °C, derate linearly to 300 mW at 100 °C.

ABSOLUTE MAXIMUM RATINGS[2]

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

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

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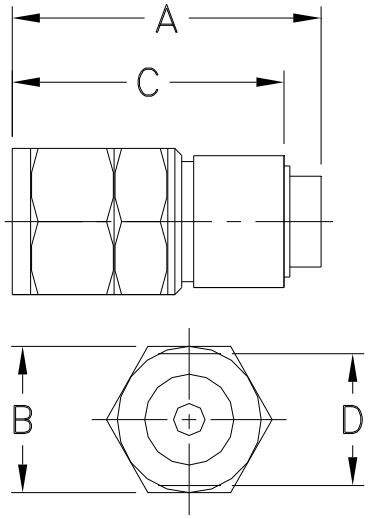
OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch / mm)

A	B	C	D	E	wt
.67	.312	.59	.281	_	grams
17.0	7.9	15.0	7.1	_	4.4

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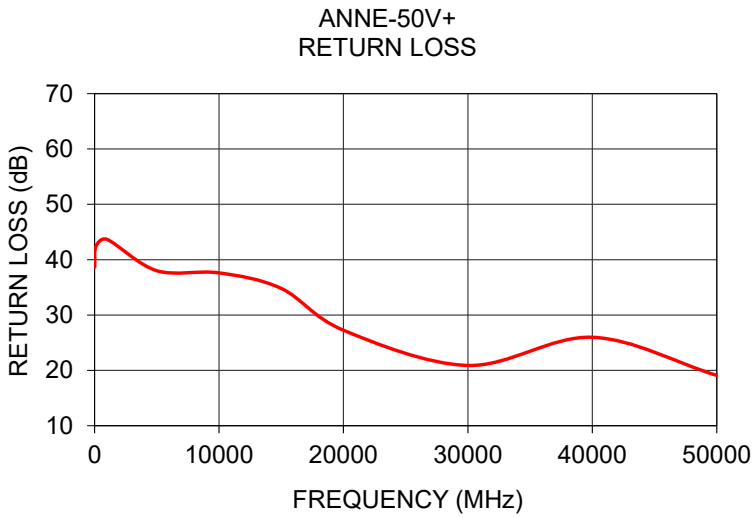
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Return Loss (dB)
10	38.66
100	42.37
1000	43.66
5000	38.00
10000	37.62
15000	34.80
20000	27.25
30000	20.89
40000	25.98
50000	19.08



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-Circuits' 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

Termination 50Ω, 2.4mm-Male ANNE-50V+

Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)
10	38.66
100	42.37
200	41.92
460	43.01
730	42.94
1000	43.66
2000	42.99
3000	38.98
4000	37.36
5000	38.00
6000	35.78
7000	35.73
8000	35.78
9000	35.34
10000	37.62
11000	37.82
12000	38.44
13000	37.60
14000	34.56
15000	34.80
16000	30.85
17000	30.57
18000	29.70
19000	26.97
20000	27.25
22000	24.40
24000	23.90
26000	23.40
26500	22.40
28000	21.62
30000	20.89
32000	21.11
34000	22.80
36000	23.41
38000	23.06
40000	25.98
42000	32.70
43000	31.59
43500	29.62
44000	25.66
45000	23.69
46000	22.12
47000	21.23
48000	20.44
49000	19.73
50000	19.08

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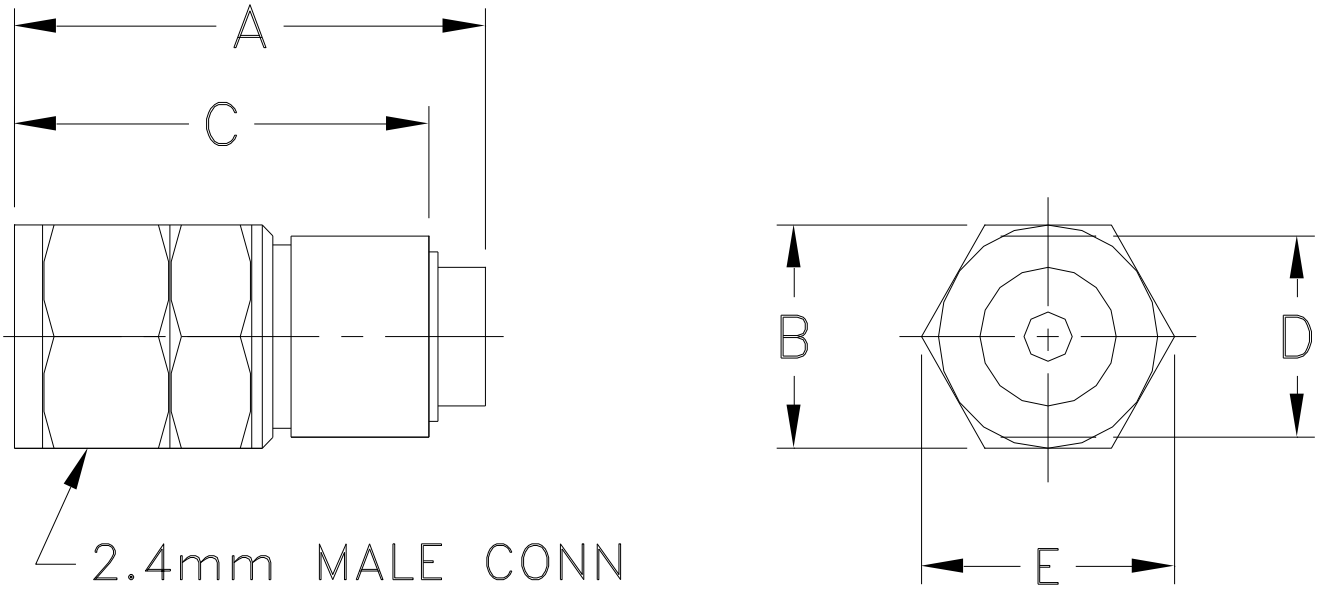
Typical Performance Curves

Case Style LL

Outline Dimensions

LL2539



CASE #	A	B	C	D	E	WT. GRAM
LL2539	.67 (17.02)	.312 (8.00)	.59 (14.97)	.281 (7.14)	.36 (9.14)	4.4

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

Notes:

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

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Mini-Circuits

Environmental Specifications ENV28

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

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