COAXIAL

Termination

ANNEF-50E+

50Ω DC to 65 GHz 1.85mm-Female

THE BIG DEAL

- Ultra-Wideband, DC to 65 GHz
- Excellent Return Loss, 23 dB typ.
- Input Power Handling up to 1W
- Mates with 2.4mm connector types

Generic photo used for illustration purposes only

Model No.	ANNEF-50E+
Case Style	LL2592-2
Connectors	1.85 mm-Female

+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' ANNEF-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-female connector, allowing connections with 2.4mm type connectors. The unit features rugged construction for a long life of use and comes in a stainless steel case and beryllium copper center conductor measuring only 0.65" (l) x 0.31" (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: 23 dB typ.	Good return loss minimizes signal reflections across multiple-decade frequency range.
1.85mm-Female Connector mates with 2.4mm connector	Provides flexible connection options, avoiding the need for extra adapters.
Power Handling up to 1W	ANNEF-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 componentry where heat rise is common.

REV. A
ECO-016342
ANNEF-50E+
MCL NY
230106

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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	34	—	dB
	18 - 40	17.7	27	—	
	40 - 65	10.0	23	—	
Input Power[1]	DC - 65	—	—	1	W

1. Up to 25°C, derates linearly to 100mW at 100°C.

ABSOLUTE MAXIMUM RATINGS[1]

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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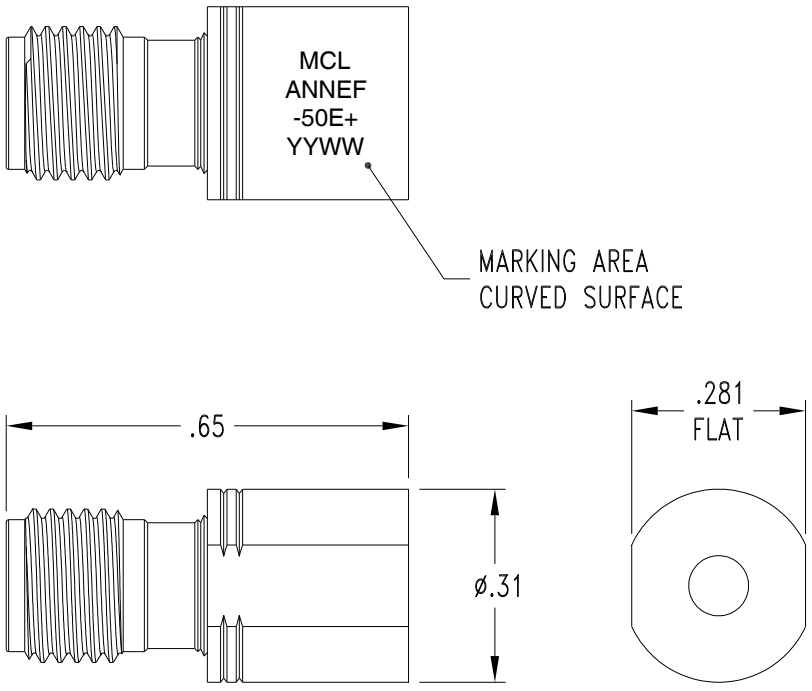
OUTLINE DRAWING



Weight: 4.6 grams (Max.)
Dimensions are in inches [mm]

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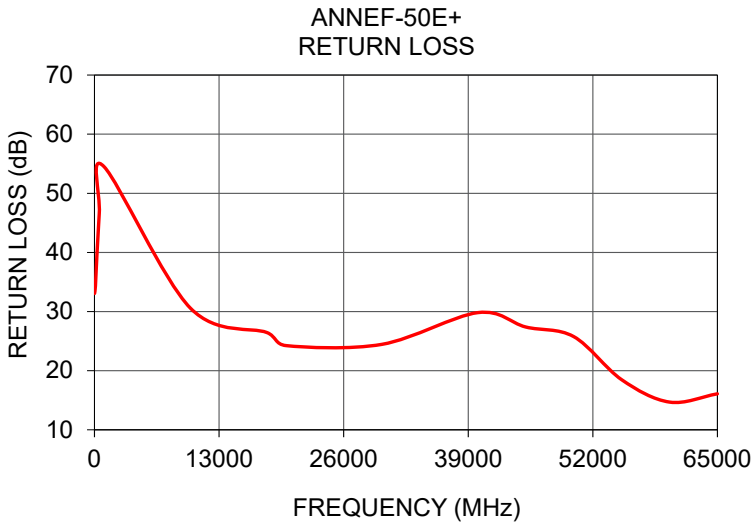
TYPICAL PERFORMANCE DATA

Frequency (MHz)	Return Loss (dB)
10	33.05
100	34.31
500	46.58
1000	54.50
10000	30.59
18000	26.45
20000	24.24
30000	24.45
40000	29.82
45000	27.39
50000	25.77
55000	18.48
60000	14.69
65000	16.09



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

Termination 50Ω, 1.85mm-Female ANNEF-50E+

Typical Performance Data

FREQUENCY (MHz)	RETURN LOSS (dB)
10	33.05
20	35.27
30	35.69
40	35.61
50	35.36
60	35.06
70	34.83
80	34.58
90	34.36
100	34.31
200	39.43
300	37.53
400	41.55
500	46.58
600	44.37
700	48.89
800	46.18
900	46.19
1000	54.50
2000	38.03
3000	32.28
4000	30.55
5000	28.39
6000	28.51
7000	28.45
8000	29.47
9000	30.60
10000	30.59
11000	29.62
12000	29.80
13000	29.84
14000	31.24
15000	32.58
25000	22.18
35000	37.23
45000	27.39
55000	18.48
65000	16.09

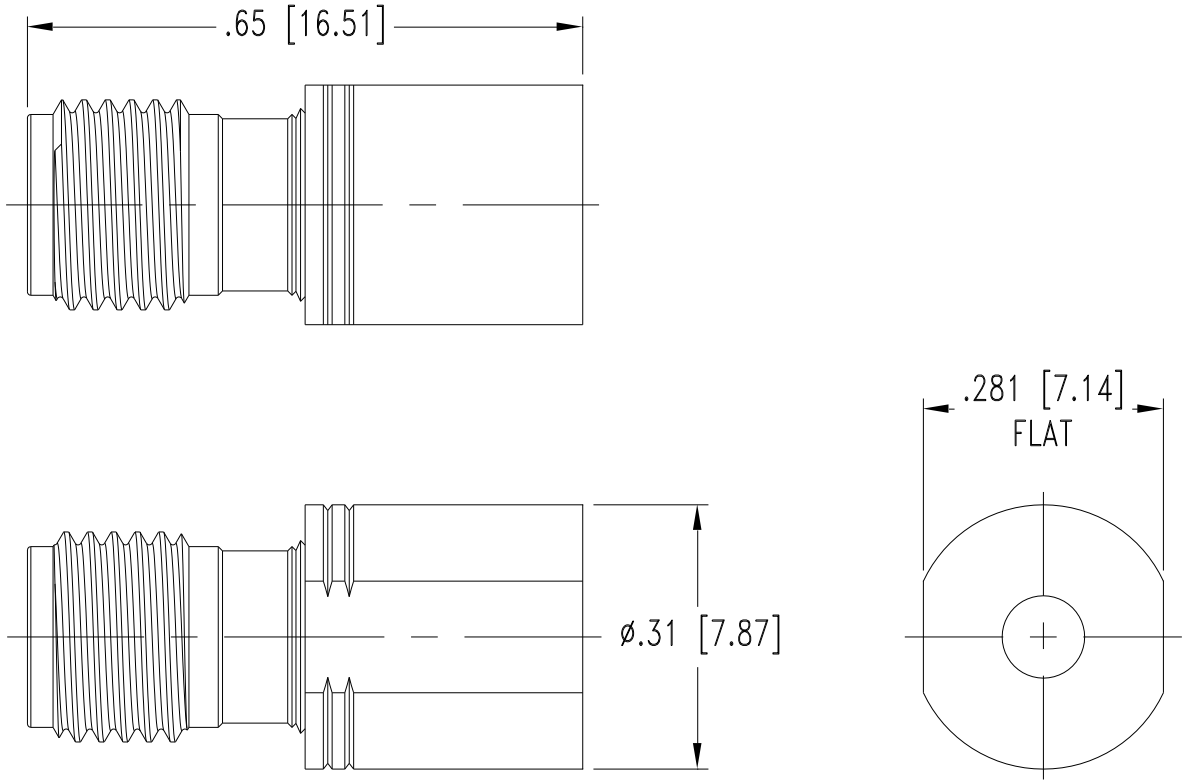
Termination 50Ω,1.85mm-Female ANNEF-50E+

Typical Performance Curves

Case Style LL

Outline Dimensions

LL2592-2



Weight: 4.6 grams (MAX)

Dimensions are in inches (mm). Tolerances: 2 Pl. ± .03; 3 Pl. ± .010

Notes:

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

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