*Coaxial*

# Termination *SMA-MRP*

# ANNE-50RP+

50Ω DC to 6 GHz

CASE STYLE: LL561

## The Big Deal

- Wideband, DC to 6 GHz
- Excellent return loss, 35 dB typ. up to 6 GHz
- Input power handling up to 1W

## Product Overview

Mini-Circuits' ANNE-50RP+ is wideband 50Ω termination capable of absorbing signals up to 1W from DC to 6 GHz. It provides excellent return loss across its entire operating frequency range, effectively dissipating signal power with minimal reflections. This model has a SMA-Male Reverse Polarity connector. The unit features rugged construction for a long life of use and measuring only 0.58"(l) x 0.37" (dia.).

## Key Features

| Feature | Advantages |
|---|---|
| Wideband, DC to 6 GHz | Extremely wide frequency range provides application flexibility and makes this model ideal for broadband and multi-band use. |
| Good return loss 35 dB typ. up to 6 GHz | Good return loss minimizes signal reflections across multiple-decade frequency range. |
| Power handling up to 1W | ANNE-50RP+ meets a wide range of system power requirements in a small device size. |
| Wide operating temperature range, -55˚C to +100˚C | Withstands tough operating conditions and is suitable for use near high power componentry 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

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## ANNE-50RP+

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| Connector | Model |
|---|---|
| SMA-MRP | ANNE-50RP+ |

***+RoHS Compliant***

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

### 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.

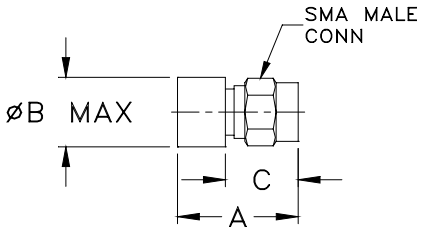
### Features

- Wideband coverage, DC to 6 GHz
- Return loss, 35 dB typ. up to 6 GHz
- Rugged construction

### Applications

- Cellular communications
- Satellite communications
- Test set-up
- Defense & radar

### Outline Drawing




### Outline Dimensions (inch / mm)

| A | B | C | Wt. |
|---|---|---|---|
| **.58** | **.37** | **.35** | grams |
| 14.73 | 9.40 | 8.89 | 4.0 |

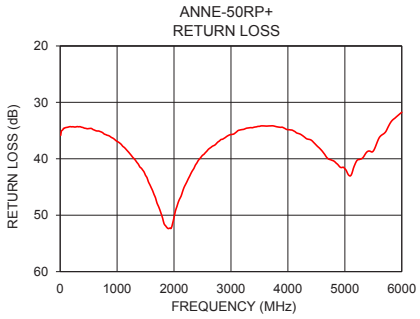
### Electrical Specifications at 25°C

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| **Frequency Range** | DC-6 | - | - | - | GHz |
| **Impedance** | 50 | | - | | Ohms |
| **Return Loss** | DC-3 | 23 | 35 | - | dB |
| | 3-6 | 20 | 35 | - | |
| **Input Power**[1] | DC-6 | - | - | 1.0 | W |

1. At 50°C, derate linearly to 350mW at 100°C.

### Typical Performance Data

| Frequency (MHz) | Return Loss (dB) |
|---|---|
| 10 | 35.85 |
| 100 | 34.46 |
| 200 | 34.34 |
| 400 | 34.45 |
| 500 | 34.65 |
| 750 | 35.40 |
| 1000 | 36.92 |
| 1500 | 42.95 |
| 2000 | 50.40 |
| 2500 | 39.39 |
| 2750 | 37.23 |
| 3000 | 35.71 |
| 3250 | 34.68 |
| 3500 | 34.26 |
| 4000 | 34.84 |
| 4500 | 37.60 |
| 5000 | 41.76 |
| 5500 | 38.62 |
| 5750 | 34.58 |
| 6000 | 31.76 |

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REV. OR
M162941
ANNE-50RP+
EDU2721
URJ
170724


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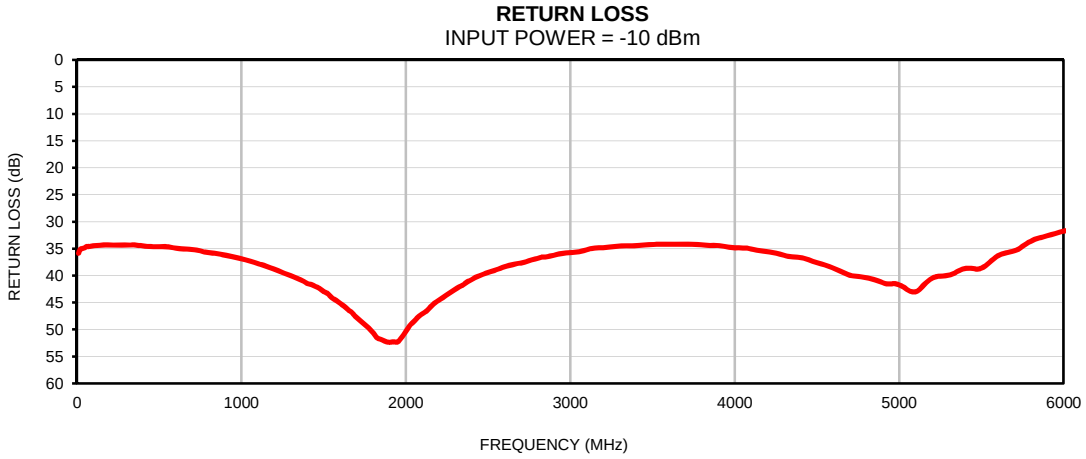
# Termination 50 ohm , SMA-MRP ANNE-50RP+

*Typical Performance Data*

| FREQ. | RETURN LOSS |
|---|---|
| (MHz) | (dB) |
| 10 | 35.85 |
| 100 | 34.46 |
| 200 | 34.34 |
| 300 | 34.30 |
| 400 | 34.45 |
| 500 | 34.65 |
| 600 | 34.90 |
| 700 | 35.17 |
| 800 | 35.71 |
| 900 | 36.22 |
| 1000 | 36.92 |
| 1100 | 37.79 |
| 1200 | 38.80 |
| 1300 | 39.99 |
| 1400 | 41.46 |
| 1500 | 42.95 |
| 1600 | 45.13 |
| 1700 | 47.82 |
| 1800 | 50.54 |
| 1900 | 52.38 |
| 2000 | 50.40 |
| 2100 | 47.10 |
| 2200 | 44.59 |
| 2300 | 42.54 |
| 2400 | 40.77 |
| 2500 | 39.39 |
| 2600 | 38.36 |
| 2700 | 37.66 |
| 2800 | 36.83 |
| 2900 | 36.24 |
| 3000 | 35.71 |
| 3100 | 35.22 |
| 3200 | 34.82 |
| 3300 | 34.55 |
| 3400 | 34.42 |
| 3500 | 34.26 |
| 3600 | 34.19 |
| 3700 | 34.17 |
| 3800 | 34.32 |
| 3900 | 34.40 |
| 4000 | 34.84 |
| 4100 | 35.05 |
| 4200 | 35.56 |
| 4300 | 36.23 |
| 4400 | 36.64 |
| 4500 | 37.60 |
| 4600 | 38.61 |
| 4700 | 39.94 |
| 4800 | 40.36 |
| 4900 | 41.31 |
| 5000 | 41.76 |
| 5100 | 43.01 |
| 5200 | 40.51 |
| 5300 | 39.96 |
| 5400 | 38.70 |
| 5500 | 38.62 |
| 5600 | 36.33 |
| 5700 | 35.42 |
| 5800 | 33.63 |
| 6000 | 31.76 |

# Termination 50 ohm , SMA-MRP ANNE-50RP+

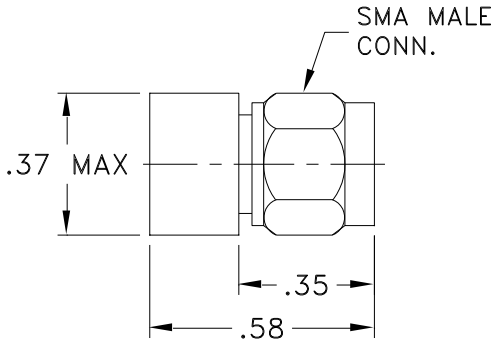
*Typical Performance Curves*



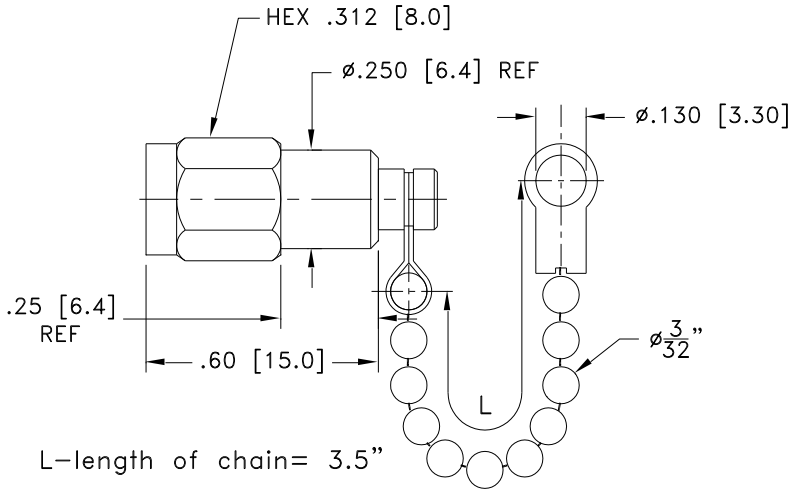
# Case Style LL

## Outline Dimensions

**LL561**




WITHOUT CHAIN




WITH CHAIN

| CASE # | WT GRAMS |
|---|---|
| LL561 | 4.0 |
| LL561 WITH CHAIN | 5.00 |

**Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015**

**Notes:**

1. Case Material: Brass.
2. Case Finish: Gold plate.
3. For polarity of connector refer individual model data sheet.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# 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<br>Ambient Environment | Individual Model Data Sheet |
| Storage Temperature | -55° to 100° C<br>Ambient Environment | Individual Model Data Sheet |
| Barometric Pressure | 100,000 Feet | MIL-STD-202, Method 105, Condition D |
| Humidity | 90% RH, 65°C<br>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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