

Attenuator Fixed

NAT-6DC+

50Ω 200 to 2500 MHz

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.



CASE STYLE: FF57

| | |
|------------|----------|
| Connectors | Model |
| N-Type | NAT-6DC+ |

Features

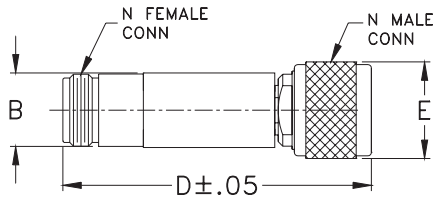
- high DC current handling
- high DC breakdown voltage
- DC resistance (in/out) 0.1Ω, typ.

Applications

- power passing
- instrumentation
- test equipment
- lab use

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

Outline Drawing



Outline Dimensions (inch/mm)

| | | | |
|-------|-------|-------|-------|
| B | D | E | wt |
| .67 | 2.90 | .82 | grams |
| 17.02 | 73.66 | 20.83 | 90.0 |

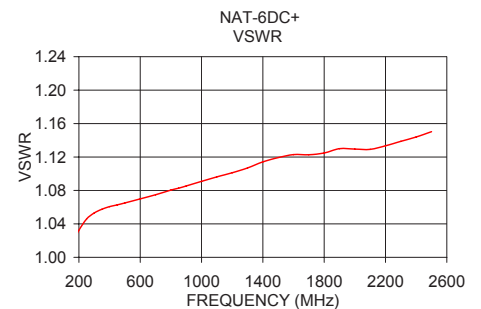
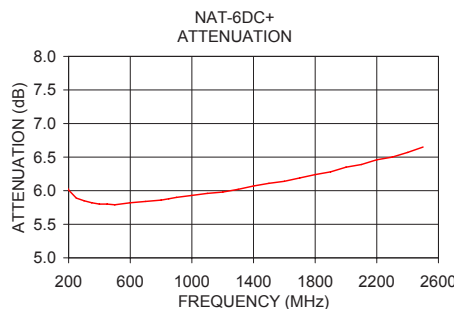
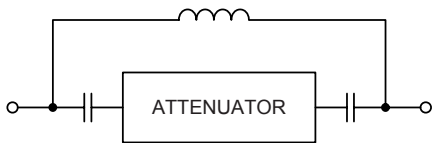
Electrical Specifications (T_{AMB} = 25°C)

| FREQUENCY (MHz) | ATTENUATION (dB) | | VSWR (:1) | POWER (mW) | DC CURRENT (Amps) | DC BREAKDOWN (Volts) |
|-----------------|------------------|----------------|-----------|------------|-------------------|----------------------|
| | Nom. | Flatness, Max. | Max. | Max. | Max. | Max. |
| 200 - 2500 | 6± 0.5 | ± 0.8 | 1.40 | 375 | 1 | 60 |

Typical Performance Data at 25°C

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 200.00 | 6.01 | 1.03 |
| 300.00 | 5.85 | 1.05 |
| 400.00 | 5.80 | 1.06 |
| 500.00 | 5.79 | 1.07 |
| 600.00 | 5.82 | 1.07 |
| 700.00 | 5.84 | 1.07 |
| 800.00 | 5.86 | 1.08 |
| 900.00 | 5.90 | 1.09 |
| 1000.00 | 5.93 | 1.09 |
| 1200.00 | 5.98 | 1.10 |
| 1300.00 | 6.02 | 1.11 |
| 1400.00 | 6.07 | 1.11 |
| 1500.00 | 6.11 | 1.12 |
| 1600.00 | 6.14 | 1.12 |
| 1700.00 | 6.19 | 1.12 |
| 1800.00 | 6.24 | 1.12 |
| 2000.00 | 6.35 | 1.13 |
| 2100.00 | 6.39 | 1.13 |
| 2300.00 | 6.50 | 1.14 |
| 2500.00 | 6.65 | 1.15 |

Electrical Schematic



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.
- 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



Fixed Attenuator, DC Passing

NAT-6DC+

Typical Performance Data

| FREQUENCY (MHz) | ATTENUATION (dB) | FEMALE RETURN LOSS (dB) | MALE RETURN LOSS (dB) |
|--------------------|---------------------|-------------------------------|-----------------------------|
| 100 | 6.81 | 27.39 | 28.05 |
| 120 | 6.56 | 34.08 | 35.27 |
| 140 | 6.37 | 44.54 | 47.33 |
| 160 | 6.22 | 46.33 | 43.75 |
| 180 | 6.09 | 39.31 | 38.45 |
| 200 | 6.01 | 36.12 | 35.94 |
| 250 | 5.89 | 32.19 | 32.99 |
| 300 | 5.85 | 30.29 | 31.76 |
| 350 | 5.82 | 29.03 | 31.08 |
| 400 | 5.80 | 28.11 | 30.62 |
| 450 | 5.80 | 27.39 | 30.34 |
| 500 | 5.79 | 26.83 | 30.03 |
| 600 | 5.82 | 25.85 | 29.43 |
| 700 | 5.84 | 24.99 | 28.86 |
| 800 | 5.86 | 24.56 | 28.25 |
| 850 | 5.88 | 24.44 | 28.02 |
| 900 | 5.90 | 24.42 | 27.76 |
| 1000 | 5.93 | 24.42 | 27.24 |
| 1100 | 5.96 | 24.19 | 26.76 |
| 1200 | 5.98 | 23.91 | 26.35 |
| 1300 | 6.02 | 24.05 | 25.89 |
| 1400 | 6.07 | 24.53 | 25.35 |
| 1500 | 6.11 | 24.83 | 24.99 |
| 1600 | 6.14 | 25.12 | 24.75 |
| 1700 | 6.19 | 25.56 | 24.76 |
| 1800 | 6.24 | 26.45 | 24.62 |
| 1900 | 6.28 | 27.87 | 24.29 |
| 2000 | 6.35 | 28.54 | 24.32 |
| 2100 | 6.39 | 28.59 | 24.34 |
| 2200 | 6.46 | 28.10 | 24.08 |
| 2300 | 6.50 | 27.04 | 23.76 |
| 2400 | 6.57 | 25.88 | 23.46 |
| 2500 | 6.65 | 24.65 | 23.11 |
| 2600 | 6.73 | 23.19 | 22.58 |
| 2700 | 6.84 | 21.47 | 21.72 |
| 2800 | 7.00 | 19.95 | 20.68 |
| 2900 | 7.55 | 19.39 | 19.05 |
| 3000 | 7.27 | 19.67 | 20.76 |

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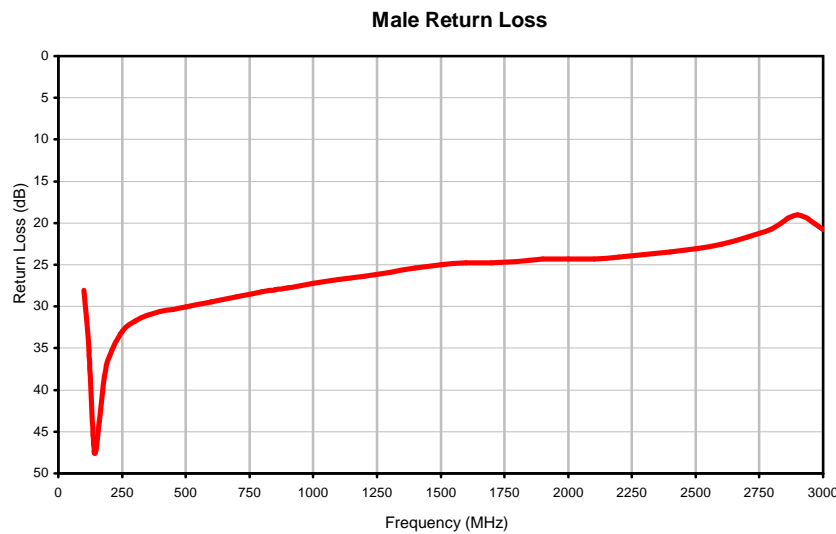
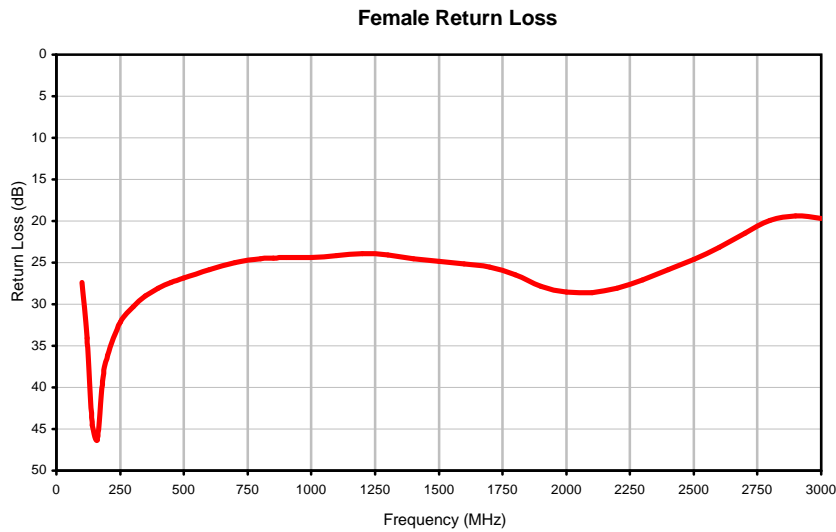
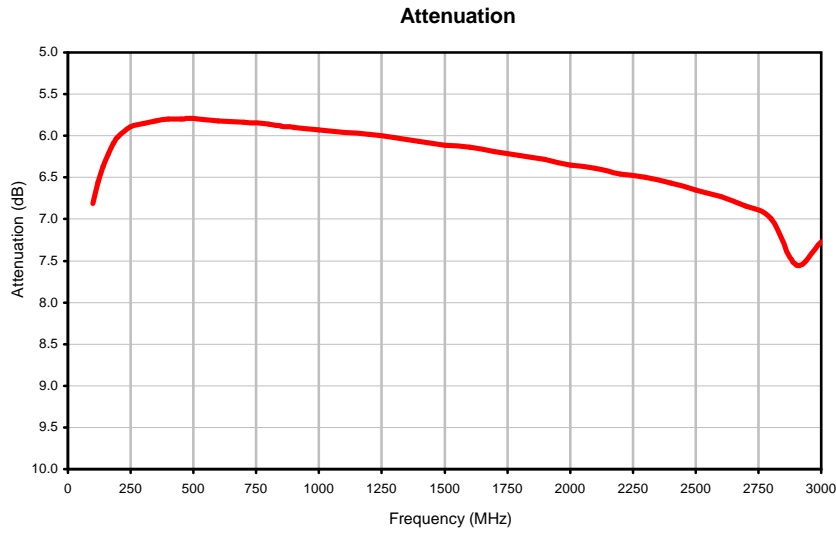
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P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



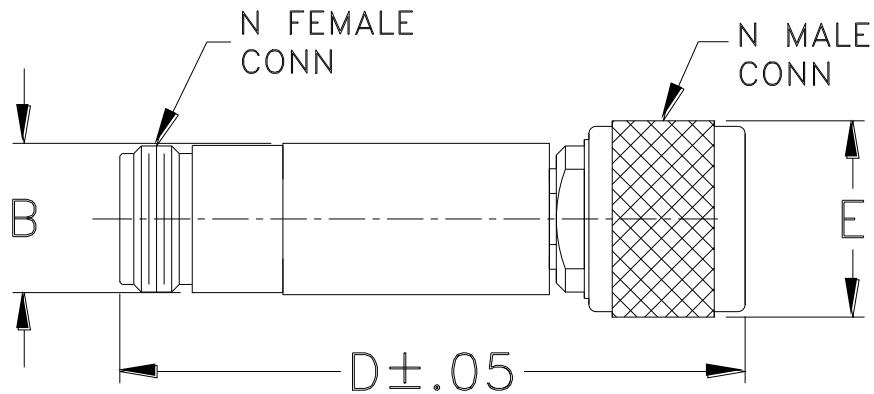
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



Typical Performance Curves



Outline Dimensions



| CASE #. | A | B | C | D | E | WT GRAMS |
|---------|----|----------------|----|-----------------|----------------|----------|
| FF57 | -- | .70 (17.78) | -- | 2.90 (73.66) | .82 (20.83) | 90.0 |

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

Note:

1. Case material: Stainless steel.

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 |