

# SMA Fixed Attenuator

50Ω 1W 5dB DC to 6000 MHz

## VAT-5+



### Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -45°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 6000 MHz
- 1 watt rating
- rugged unibody construction
- off-the-shelf availability
- very low cost

### Applications

- impedance matching
- signal level adjustment

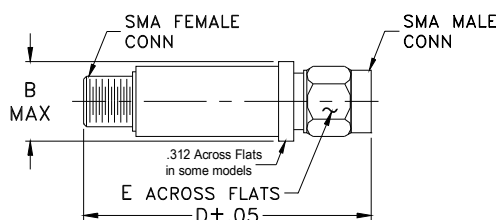
CASE STYLE: FF704

| Connectors | Model  | Price       | Qty.  |
|------------|--------|-------------|-------|
| SMA        | VAT-5+ | \$13.95 ea. | (1-9) |

### +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    |
|-------|-------|------|-------|
| .410  | 1.43  | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10.0  |

### Electrical Specifications

| FREQ.<br>RANGE<br>(MHz)        | ATTENUATION *<br>(dB)<br>Flatness ** |      |         |         |          | VSWR<br>(:1) |      |         |      |         | MAX.<br>INPUT<br>POWER<br>(W) |
|--------------------------------|--------------------------------------|------|---------|---------|----------|--------------|------|---------|------|---------|-------------------------------|
|                                | DC-3 GHz                             |      | 3-5 GHz | 5-6 GHz | DC-6 GHz | DC-3 GHz     |      | 3-5 GHz |      | 5-6 GHz |                               |
|                                | Nom.                                 | Typ. | Typ.    | Typ.    | Typ.     | Typ.         | Max. | Typ.    | Max. | Typ.    |                               |
| f <sub>L</sub> -f <sub>U</sub> |                                      |      |         |         |          |              |      |         |      |         |                               |
| DC-6000                        | 5±0.3                                | 0.10 | 0.10    | 0.10    | 0.25     | 1.05         | 1.20 | 1.15    | 1.45 | 1.40    | 1.0                           |

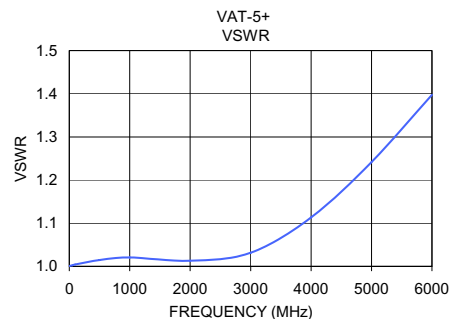
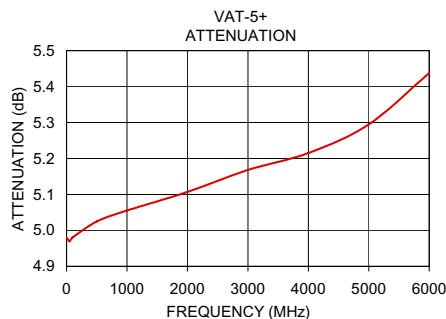
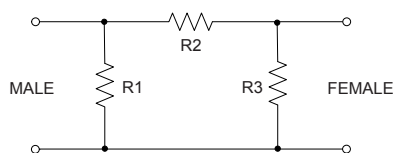
\* Attenuation varies by 0.3 dB max. over temperature.

\*\* Flatness= variation over band divided by 2.

### Typical Performance Data

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 0.03            | 4.98             | 1.00      |
| 50.00           | 4.97             | 1.00      |
| 100.00          | 4.98             | 1.00      |
| 500.00          | 5.03             | 1.01      |
| 1000.00         | 5.06             | 1.02      |
| 2000.00         | 5.11             | 1.01      |
| 3000.00         | 5.17             | 1.03      |
| 4000.00         | 5.22             | 1.11      |
| 5000.00         | 5.30             | 1.24      |
| 6000.00         | 5.44             | 1.40      |

### Electrical Schematic



### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

