

# DC Passing Attenuator

## SAT-6DC-3A+

50Ω 100 to 500 MHz

### The Big Deal

- HIGH DC Current handling
- Rugged unibody construction
- DC resistance (in/out) 0.1Ω Typ



CASE STYLE: FF99

### Product Overview

SAT-6DC-3A+ is a DC Passing fixed attenuator in 100 MHz to 500 MHz frequency range with excellent flatness of attenuation. These units support testing applications. Precise performance, excellent VSWR (1.1:1 typ.) and rugged construction make these models ideal solutions for systems requiring precise attenuation across very wide frequency range.

### Key Features

| Feature                  | Advantages   |
|--------------------------|--|
| Excellent VSWR, 1.10 typ | Well-matched for 50Ω systems; reduces effects of phase variation   |
| Flat attenuation         | Accurate performance within ±0.8 dB over the full frequency range. |
| Rugged construction      | Excellent durability for a long lifetime of use.                   |

#### 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)



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### 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: FF99

|            |             |
|------------|-------------|
| Connectors | Model       |
| SMA        | SAT-6DC-3A+ |

**+RoHS Compliant**

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

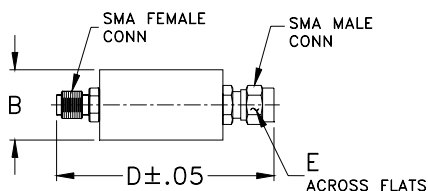
### Features

- High DC Current handling
- Rugged unibody construction
- DC resistance (in/put) 0.1Ω typical

### Applications

- Power passing
- Instrumentation
- Test equipment
- Lab use

### Outline Drawing



### Outline Dimensions (inch/mm)

|       |       |      |       |
|-------|-------|------|-------|
| B     | D     | E    | wt    |
| .67   | 1.98  | .312 | grams |
| 17.02 | 50.29 | 7.92 | 42.0  |

### Electrical Specifications at 25°C

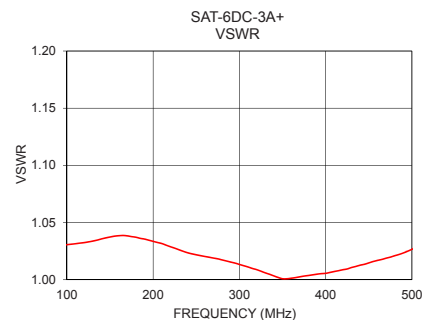
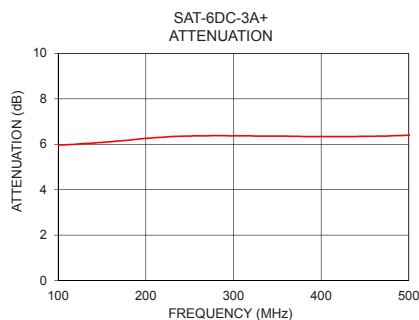
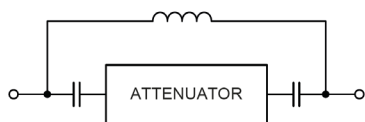
| Parameter           | Condition (MHz) | Min. | Typ. | Max. | Unit |
|---------------------|-----------------|------|------|------|------|
| Frequency Range     |                 | 100  | —    | 500  | MHz  |
| Attenuation Nominal | 100-500         | 5.5  | 6    | 6.9  | dB   |
| VSWR                | 100-500         | —    | 1.1  | 1.5  | :1   |
| DC Current          | 100-500         | —    | —    | 3    | Amps |
| Input Power         | 100-500         | —    | —    | 10   | dBm  |

1. Flatness = variation over band divided by 2.

### Typical Performance Data

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 100             | 5.97             | 1.03      |
| 120             | 6.00             | 1.03      |
| 130             | 6.03             | 1.03      |
| 140             | 6.05             | 1.04      |
| 150             | 6.08             | 1.04      |
| 160             | 6.11             | 1.04      |
| 180             | 6.18             | 1.04      |
| 200             | 6.26             | 1.03      |
| 225             | 6.33             | 1.03      |
| 250             | 6.36             | 1.02      |
| 260             | 6.37             | 1.02      |
| 270             | 6.37             | 1.02      |
| 280             | 6.38             | 1.02      |
| 290             | 6.38             | 1.02      |
| 300             | 6.37             | 1.01      |
| 325             | 6.36             | 1.01      |
| 350             | 6.36             | 1.00      |
| 400             | 6.34             | 1.01      |
| 450             | 6.35             | 1.01      |
| 500             | 6.40             | 1.03      |

### Electrical Schematic



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