

## **VAT-A-SERIES**

## 50Ω Up to 2W

DC to 6000 MHz

#### THE BIG DEAL

- Wideband coverage, DC to 6000 MHz
- Up to 2 watt rating
- Rugged unibody construction
- Excellent VSWR
- Excellent flatness

**APPLICATIONS** 





Generic photo used for illustration purposes only

Model No.	VAT-A-SERIES	
Case Style	FF704	
Connectors	SMA	

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

#### **PRODUCT OVERVIEW**

Signal level adjustmentImpedance matching

Mini-Circuits' VAT-A series are fixed attenuators from DC to 6000 MHz frequency range with excellent flatness in attenuation. VAT-A series is available with nominal attenuation of 1 to 30 dB. This attenuator series support testing and measurement application. Precise performance, excellent VSWR and rugged unibody construction makes the model ideal solution for systems requiring precise attenuation across very wide frequency range.

#### **KEY FEATURES**

Feature	Advantages
Rugged construction	Excellent durability for a long lifetime of use
Up to 2 Watt rating	Good power handling
Excellent VSWR	Well-matched for 50 $\Omega$ systems
Flat attenuation	Good performance over the band



# COAXIAL **Fixed Attenuator**

Unit

MHz

dB

dB

:1

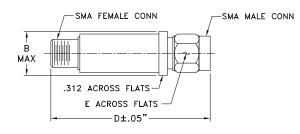
W

#### **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.

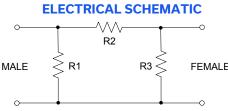
#### **OUTLINE DRAWING**



#### OUTLINE DIMENSIONS (Inch)

В	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

Note: Please refer to case style drawing for details



#### VAT-3A+ ATTENUATION 4.0 ATTENUATION (dB) 3.5 3.0 2.5 2.0 0 1000 2000 3000 4000 5000 6000 FREQUENCY (MHz)

#### VSWR 1.3 1.2 VSWR (:1) 1.1 1.0 3000 0 1000 2000 6000 4000 5000

#### 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.
- 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 C.

### Mini-Circuits

# FEMALE

	2.50	1110
100	2.94	1.13
500	2.99	1.12
900	3.03	1.12
1000	3.04	1.12
1400	3.06	1.13
1500	3.07	1.13
2000	3.09	1.14
2500	3.11	1.16
2800	3.12	1.17
3000	3.13	1.18
4000	3.16	1.21
4500	3.17	1.21
5000	3.18	1.21
6000	3.19	1.15

**ELECTRICAL SPECIFICATIONS AT 25°C** 

Min.

DC

-

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TYPICAL PERFORMANCE DATA Attenuation

(dB)

2.93

Тур.

-

3 ± 0.3

0.25

0.15

0.15

0.30

1.20

1.25

1.40

-

Max.

6000

-

1.50

1.60

2.0

VSWR

(:1)

1.13

Condition

(MHz)

10

DC-3000

3000-5000

5000-6000

DC-6000

DC-3000

3000-5000

5000-6000

1. Attenuation varies by 0.3 dB max. over temperature. 2. Flatness = variation over band divided by 2.

4. RF power at 25°C is 2.0W; Derate linearly to 1.0W at 85°C

Parameter

Attenuation<sup>1</sup> nominal<sup>3</sup>

Attenuation Flatness<sup>2</sup>

3. Nominal attenuation at 10 MHz

Frequency (MHz)

10

**VSWR** 

Input Power<sup>4</sup>

**Frequency Range** 

