

Coaxial

SMA Fixed Attenuator

50Ω 1W 7dB DC to 200 MHz

VAT-7-1+



Maximum Ratings

Operating Temperature	-45°C to 100°C
Storage Temperature	-55°C to 100°C

Features

- 1 watt rating
- rugged unibody construction
- off-the-shelf availability
- very low cost

Applications

- impedance matching
- signal level adjustment

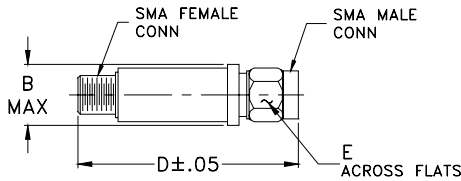
CASE STYLE: FF704

Connectors	Model	Price	Qty.
SMA	VAT-7-1+	Contact Sales Dept.	

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify 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 at 25°C

FREQ. RANGE (MHz)	ATTENUATION (dB) Flatness*				VSWR (:1)			MAX. INPUT POWER (W)
	0.3-60 MHz	60-120 MHz	120-200 MHz		0.3-60 MHz	60-120 MHz	120-200 MHz	
f_L - f_U	Nom.	Max.	Max.	Max.	Max.	Max.	Max.	
DC-200	7±0.3	0.05	0.07	0.1	1.02	1.02	1.02	1.0

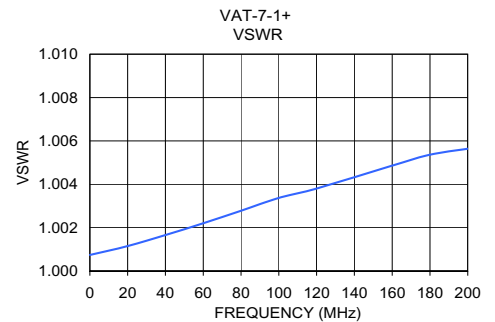
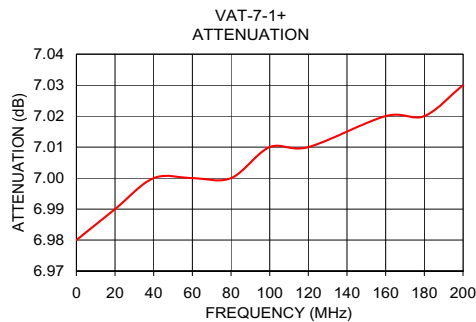
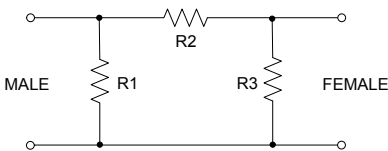
* Flatness= variation over band.

NON-CATALOG

Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
0.3	6.98	1.00
20.00	6.99	1.00
40.00	7.00	1.00
60.00	7.00	1.00
80.00	7.00	1.00
100.00	7.01	1.00
120.00	7.01	1.00
160.00	7.02	1.00
180.00	7.02	1.01
200.00	7.03	1.01

Electrical Schematic



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

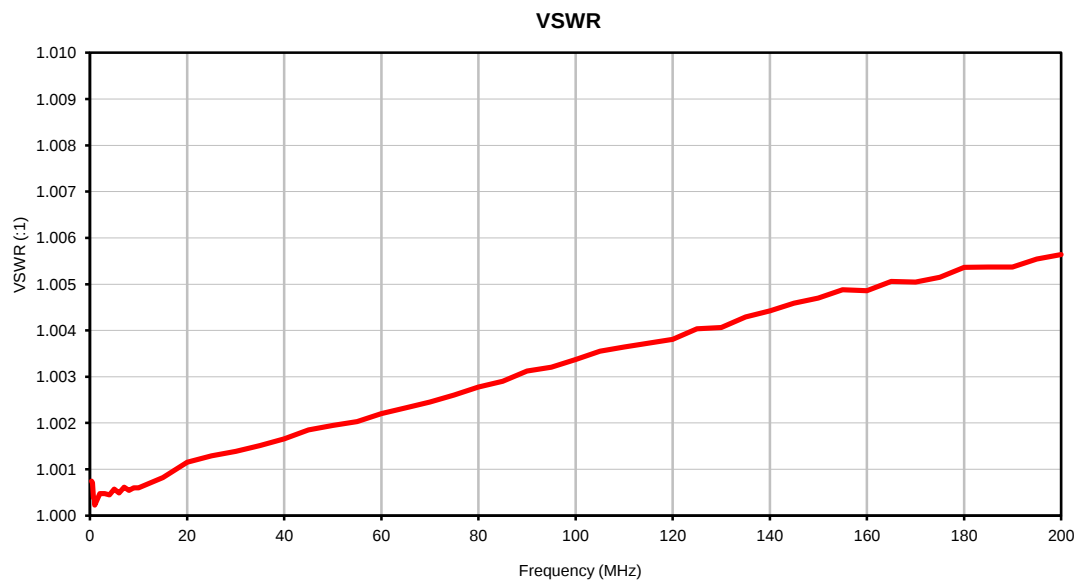
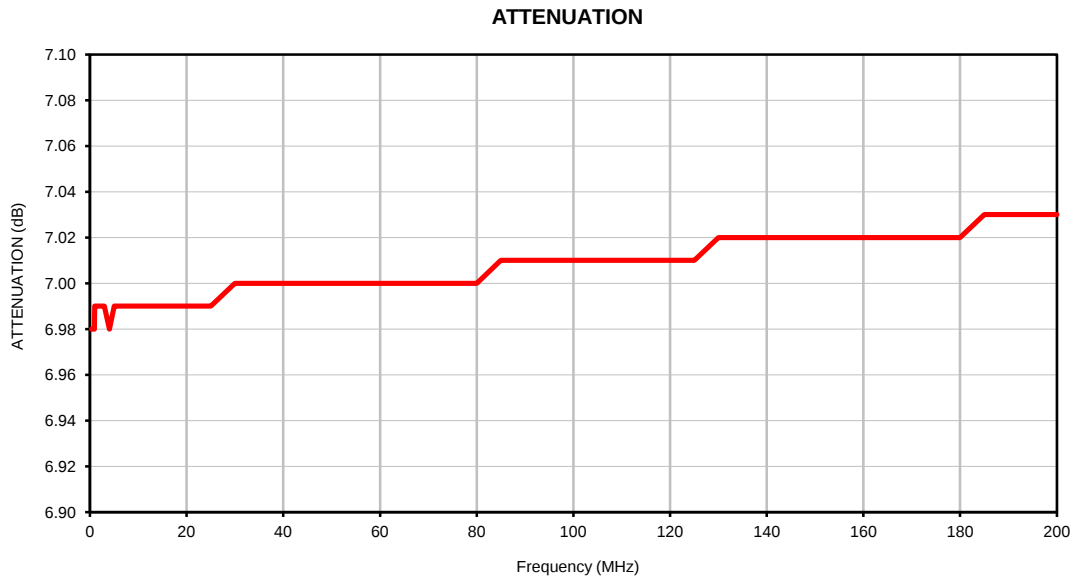
IF/RF MICROWAVE COMPONENTS

REV. OR
M122386
VAT-7-1+
SS/CP
090414

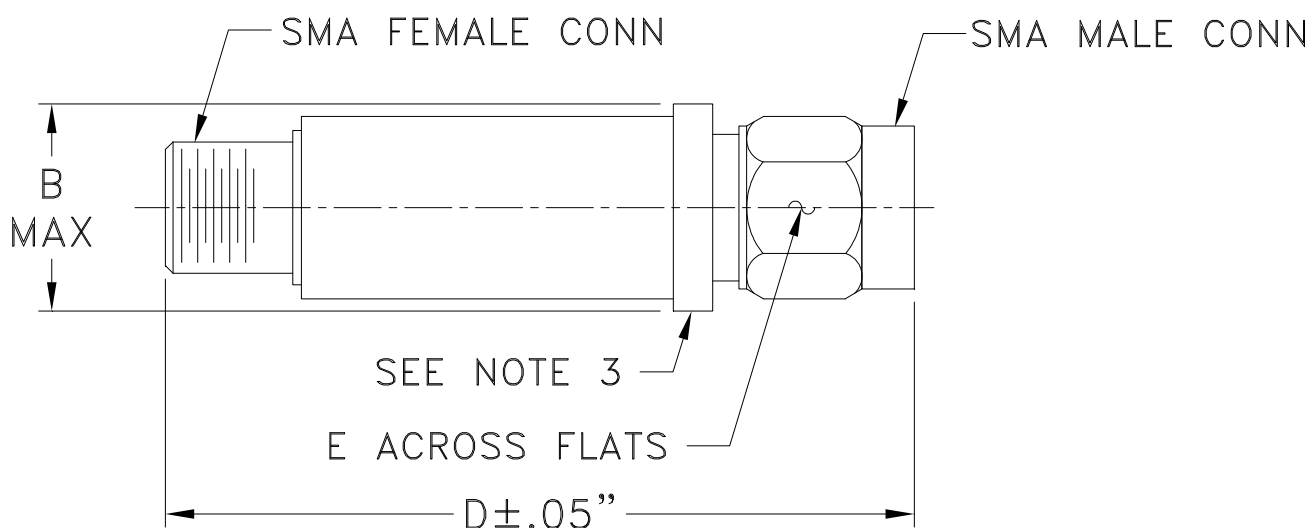
Typical Performance Data

FREQUENCY (MHz)	ATTENUATION (dB)	VSWR (:1)
0.3	6.98	1.00
0.5	6.98	1.00
0.7	6.98	1.00
0.9	6.98	1.00
1.0	6.99	1.00
2.0	6.99	1.00
3.0	6.99	1.00
4.0	6.98	1.00
5.0	6.99	1.00
6.0	6.99	1.00
7.0	6.99	1.00
8.0	6.99	1.00
9.0	6.99	1.00
10.0	6.99	1.00
15.0	6.99	1.00
20.0	6.99	1.00
25.0	6.99	1.00
30.0	7.00	1.00
35.0	7.00	1.00
40.0	7.00	1.00
45.0	7.00	1.00
50.0	7.00	1.00
55.0	7.00	1.00
60.0	7.00	1.00
65.0	7.00	1.00
70.0	7.00	1.00
75.0	7.00	1.00
80.0	7.00	1.00
85.0	7.01	1.00
90.0	7.01	1.00
95.0	7.01	1.00
100.0	7.01	1.00
105.0	7.01	1.00
110.0	7.01	1.00
115.0	7.01	1.00
120.0	7.01	1.00
125.0	7.01	1.00
130.0	7.02	1.00
135.0	7.02	1.00
140.0	7.02	1.00
145.0	7.02	1.00
150.0	7.02	1.00
155.0	7.02	1.00
160.0	7.02	1.00
165.0	7.02	1.01
170.0	7.02	1.01
175.0	7.02	1.01
180.0	7.02	1.01
185.0	7.03	1.01
190.0	7.03	1.01
195.0	7.03	1.01
200.0	7.03	1.01

Typical Performance Curves



Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF704	--	.410 (10.41)	--	1.43 (36.32)	.312 (7.92)	10.0

Dimensions are in inches (mm). Tolerances: 2Pl. $\pm .04$; 3Pl. $\pm .030$

Notes:

1. Case material: Stainless steel.
2. Case finish: Gold plated.
3. Round Flange may have .312 Across Flats in some models.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

RF/IF MICROWAVE COMPONENTS



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	-45° 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