NON-CATALOG

SMA/BNC

Adaptenuator

SM-BF-3

50Ω 0.5W 3dB DC to 2000 MHz



CASE STYLE: DJ871

Connectors		Model
Conn1	**Conn2**	
SMA-Male	**BNC-Female**	SM-BF-3

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 150°C

Permanent damage may occur if any of these limits are exceeded.

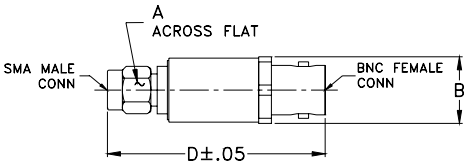
Features

- improved interface matching
- wideband, DC to 2000 MHz, useable to 4000 MHz
- excellent VSWR, 1.1:1 typ.
- excellent flatness, ±0.1dB typ.
- rugged unibody construction

Applications

- instrumentation
- provides attenuation and connector type change
- minimizes hardware

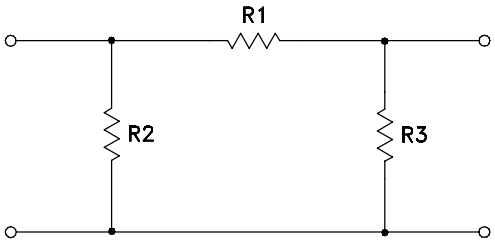
Outline Drawing



Outline Dimensions (inch / mm)

A	B	D	wt
.312	.55	1.68	grams
7.92	13.97	42.67	18.8

Electrical Schematic



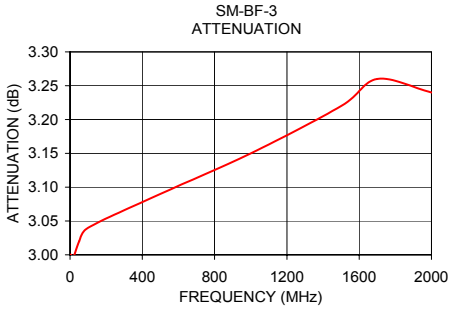
Electrical Specifications

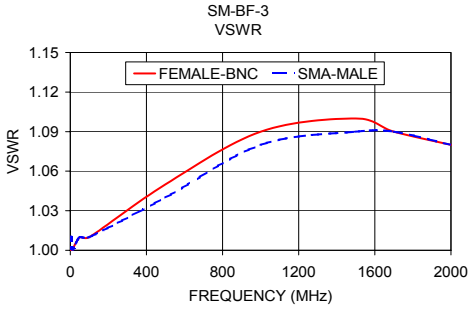
FREQ. (MHz)	ATTENUATION (dB) Flatness*							VSWR (:1)						MAX. INPUT POWER (W)
		DC-500 MHz		DC-1000 MHz		DC-2000 MHz		DC-500 MHz		DC-1000 MHz		DC-2000 MHz		
f_L-f_U	Nom.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
DC-2000	3±0.3	0.05	0.15	0.10	0.20	0.15	0.25	1.1	1.2	1.1	1.2	1.2	1.25	0.5

*Flatness defined as peak to peak attenuation over band divided by 2.

Typical Performance Data

FREQUENCY (MHz)	ATTENUATION (dB)	VSWR (:1)	
		BNC-Female	SMA-Male
1.00	3.00	1.00	1.01
5.00	3.00	1.00	1.01
10.00	2.99	1.00	1.00
50.00	3.02	1.01	1.01
100.00	3.04	1.01	1.01
500.00	3.09	1.05	1.04
1000.00	3.15	1.09	1.08
1500.00	3.22	1.10	1.09
1700.00	3.26	1.09	1.09
2000.00	3.24	1.08	1.08





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

SMA/BNC Adaptenuator SM-BF-3

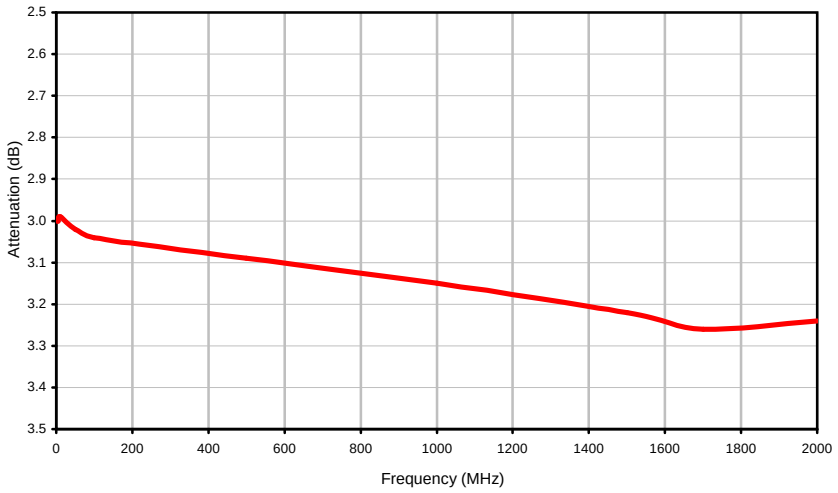
Typical Performance Data

FREQUENCY (MHz)	ATTENUATION (dB)	BNC-FEMALE RETURN LOSS (dB)	SMA-MALE RETURN LOSS (dB)
1	3.00	46.06	46.06
5	3.00	46.06	46.06
10	2.99	46.06	46.06
50	3.02	46.06	46.06
100	3.04	46.06	46.06
500	3.09	32.26	34.15
1000	3.15	27.32	28.30
1500	3.22	26.44	27.32
1700	3.26	27.32	27.32
2000	3.24	28.30	28.30

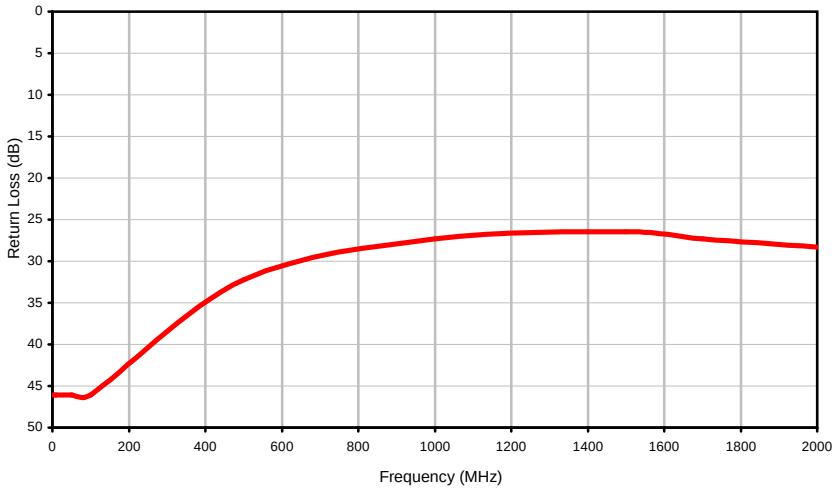
Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see minicircuits.com

Typical Performance Curves

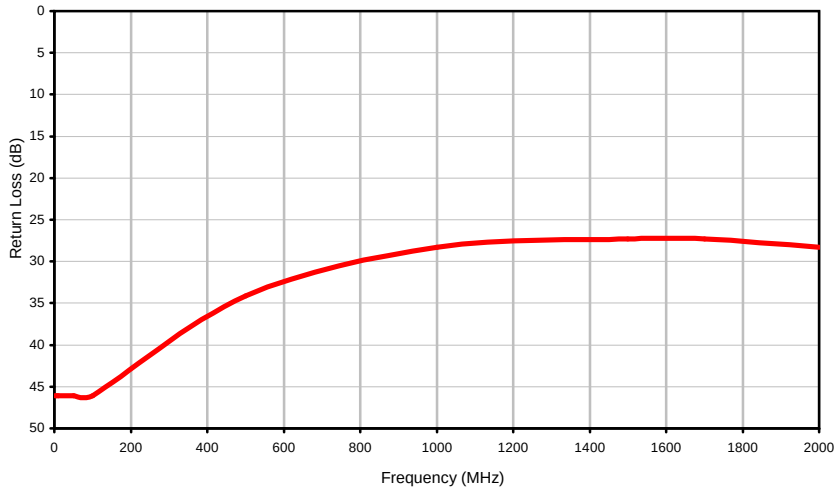
Attenuation



BNC-Female Return Loss



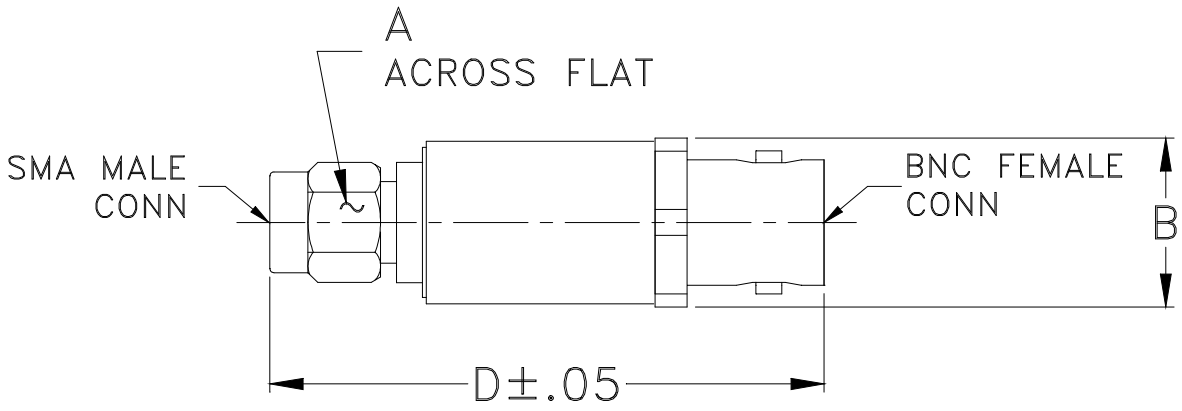
SMA-Male Return Loss



Mini-Circuits®
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED RoHS compliant
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 minicircuits.com

DJ871

Outline Dimensions



CASE#	A	B	C	D	E	WT. GRAM
DJ871	.312 (7.92)	.55 (13.97)	-- --	1.68 (42.67)	-- --	18.8

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

Notes:

1. Case material: Brass.
2. Finish: Nickel plate.

Mini-Circuits®
ISO 9001 ISO 14001 CERTIFIED
ALL NEW 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
RF/IF MICROWAVE COMPONENTS

This document and its contents are the property of Mini-Circuits

Mini-Circuits

Environmental Specifications ENV28

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

This document and its contents are the property of Mini-Circuits.