



Mini-Circuits®

COAXIAL

Fixed Attenuator

BW-40N100W+

50Ω 100 W 40 dB DC to 4 GHz N-Male to N-Female

FEATURES

- DC to 4 GHz
- High Power Handling, 100 W
- Excellent VSWR, 1.20:1 Typ.
- N-Male and N-Female Connectors

APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups



Generic photo used for illustration purposes only

Model No.	BW-40N100W+
Case Style	GH986
Connectors	N-Male to N-Female

+RoHS Compliant

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

ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range ¹		DC		4	GHz
Attenuation, Nominal ²	DC - 4		40		dB
Attenuation, Accuracy	DC - 4		±1.6		dB
VSWR	DC - 0.5			1.15	:1
	0.5 - 2			1.35	
	2 - 4			1.40	
Input Power ³	DC - 4			100	W

1. Useable to 5 GHz.

2. Temperature coefficient for attenuation .0004 dB/dB/°C typ.

3. Average power at 25°C ambient, derate linearly to 50 W at +100°C, bi-directional.
Peak power 1 kW max., 5 µsec pulse width, 100 Hz PRF.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to +100°C
Storage Temperature ⁴	-55°C to +100°C

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

4. With mated connectors. Unmated, +85°C max.





Mini-Circuits

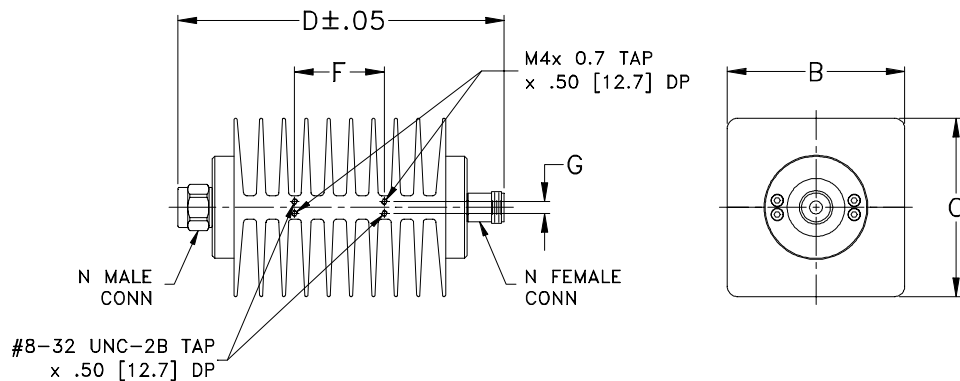
COAXIAL

Fixed Attenuator

BW-40N100W+

50Ω 100 W 40 dB DC to 4 GHz N-Male to N-Female

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inch mm)

B	C	D	E	F	G	wt.
3.46	3.46	6.36	--	1.75	.23	grams
87.88	87.88	161.54	--	44.45	5.84	1100.0





Mini-Circuits®

COAXIAL

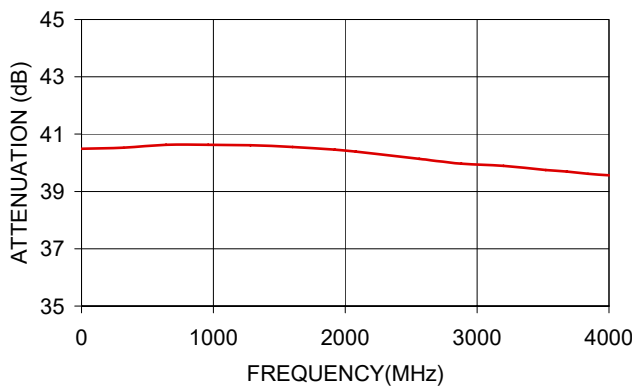
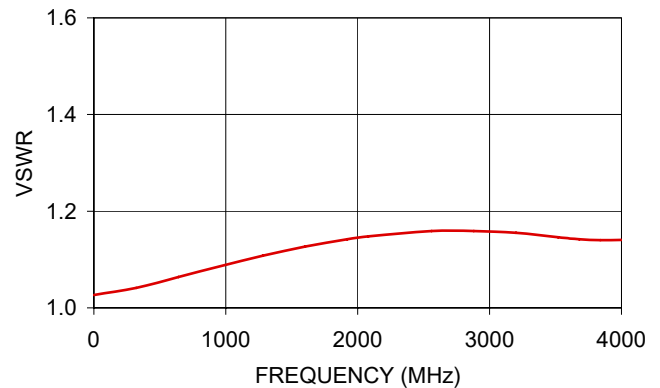
Fixed Attenuator

BW-40N100W+

50Ω 100 W 40 dB DC to 4 GHz N-Male to N-Female

TYPICAL PERFORMANCE DATA AND CHARTS

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1.00	40.49	1.03
320.92	40.53	1.04
640.84	40.63	1.06
960.76	40.63	1.09
1280.68	40.61	1.11
1600.60	40.55	1.13
1920.52	40.46	1.14
2080.48	40.39	1.15
2560.36	40.14	1.16
2880.28	39.97	1.16
3200.20	39.89	1.16
3520.12	39.75	1.15
3680.08	39.69	1.14
3840.04	39.62	1.14
4000.00	39.56	1.14

BW-40N100W+
ATTENUATIONBW-40N100W+
VSWR

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-Circuits' 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/terms/viewterm.html



Fixed Attenuator

BW-40N100W+

Typical Performance Data

FREQUENCY (MHz)	ATTENUATION (dB)	RETURN LOSS (dB)
1.00	40.49	37.62
320.92	40.53	33.88
640.84	40.63	30.21
960.76	40.63	27.68
1280.68	40.61	25.82
1600.60	40.55	24.48
1920.52	40.46	23.56
2080.48	40.39	23.25
2560.36	40.14	22.66
2880.28	39.97	22.65
3200.20	39.89	22.85
3520.12	39.75	23.33
3680.08	39.69	23.58
3840.04	39.62	23.69
4000.00	39.56	23.66

REV. X1
BW-40N100W+
061106
Page 1 of 1



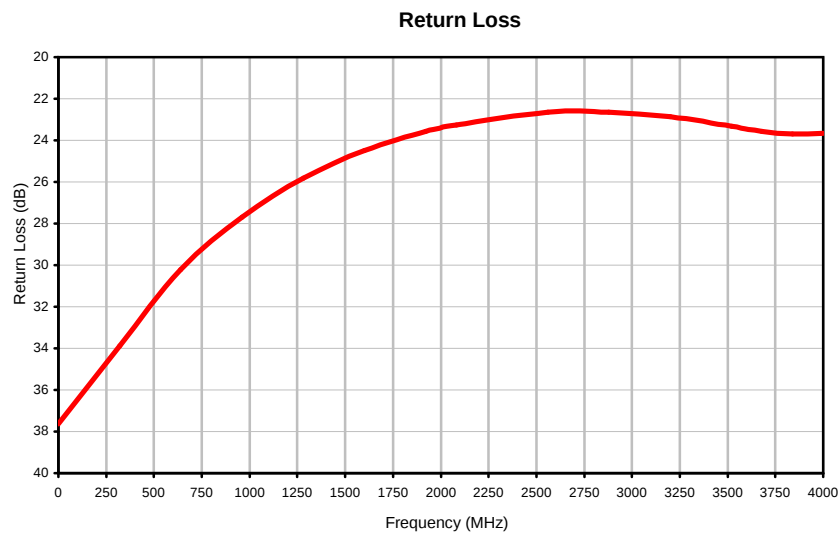
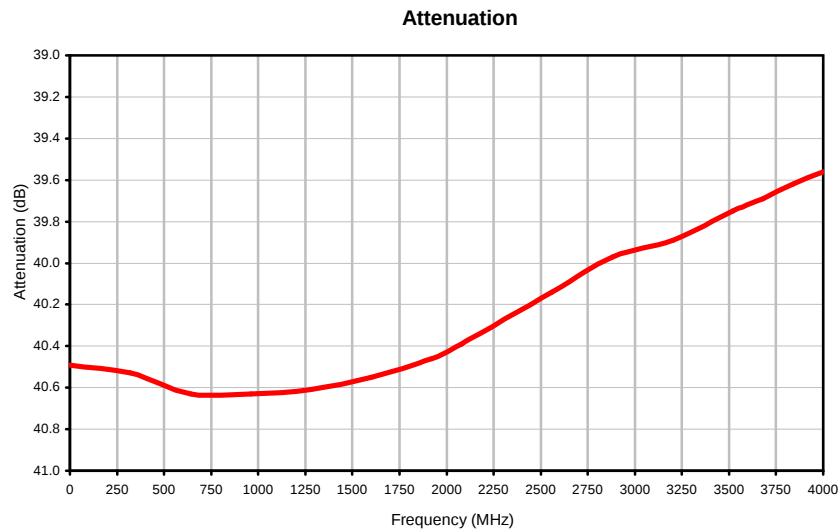
IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS 9100 CERTIFIED RoHS compliant
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



Patent Pending The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

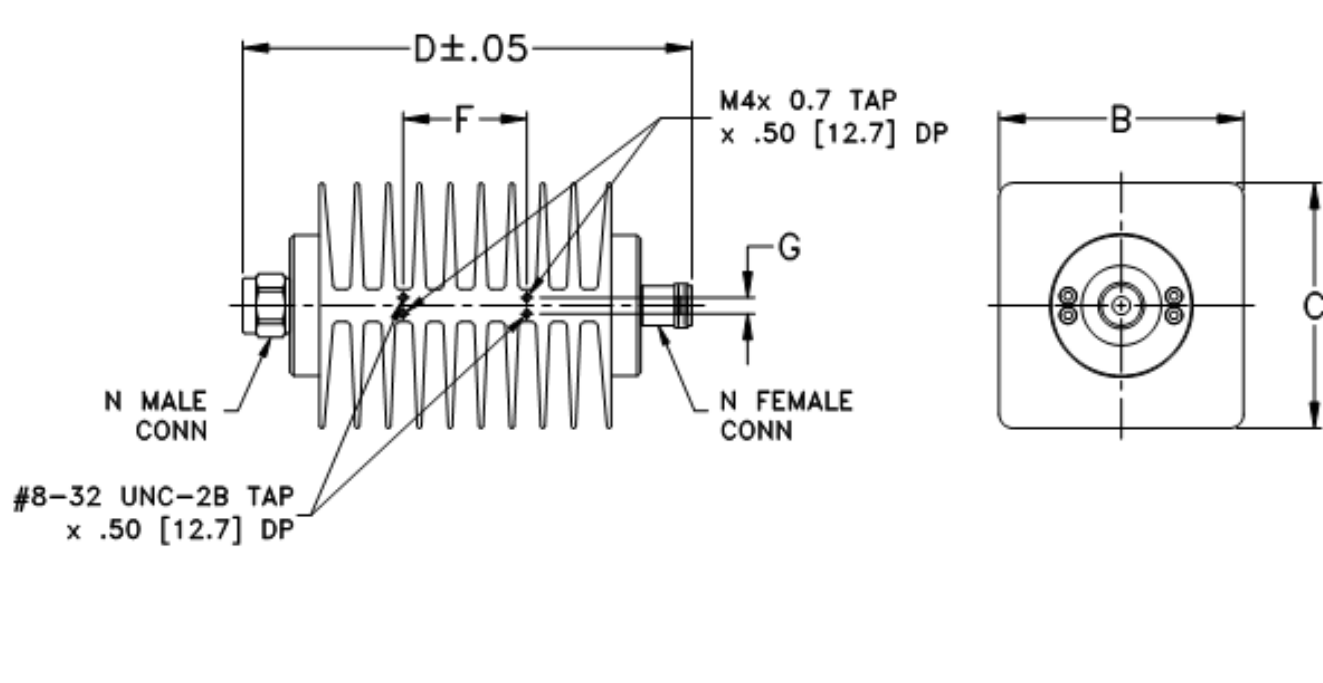


Typical Performance Curves



Outline Dimensions

GH986



CASE #.	A	B	C	D	E	F	G	H	J	WT. GRAM
GH986	--	3.46 (87.88)	3.46 (87.88)	6.36 (161.54)	--	1.75 (44.45)	.23 (5.84)	--	--	1100

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

Notes:

1. Case Material: Aluminum alloy.
2. Case finish: Black anodize.



INTERNET <http://www.minicircuits.com>

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified



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