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



Generic photo used for illustration purposes only

APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups

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 0.5 - 2 2 - 4			1.15 1.35 1.40	:1
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.

REV. D
ECO-024663
BW-40N100W+
MCL NY
250225

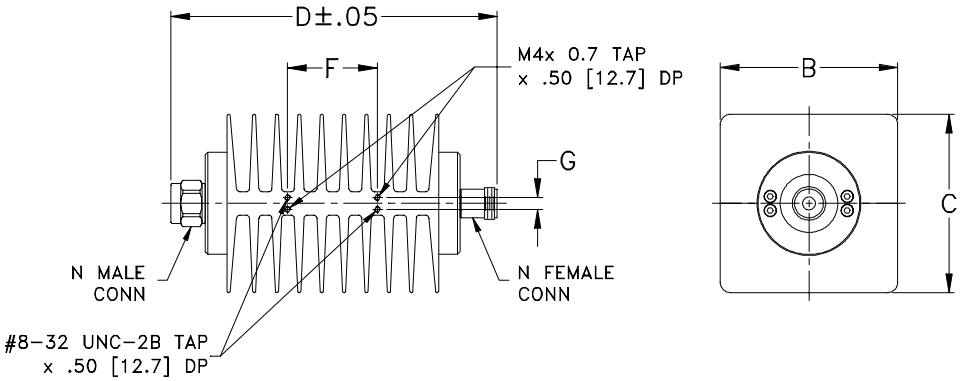
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OUTLINE DRAWING



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

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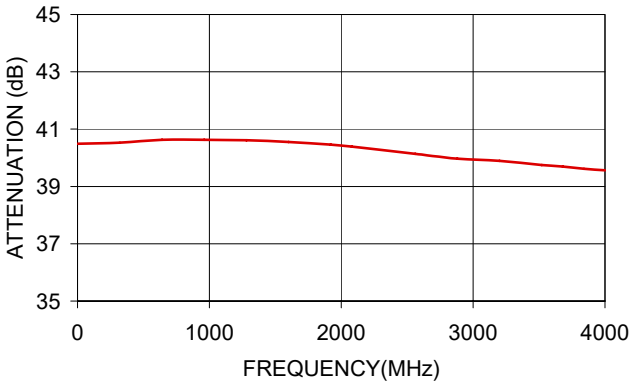
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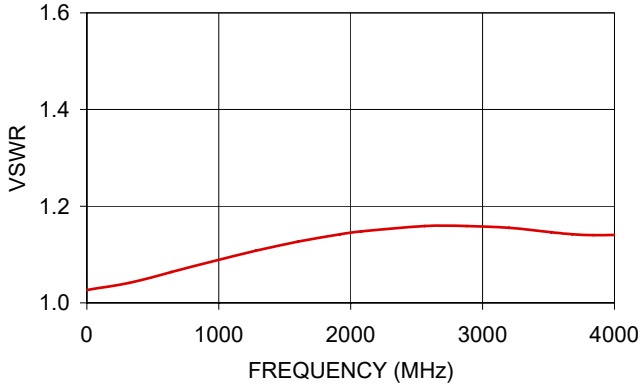
TYPICAL PERFORMANCE DATA AND CHARTS

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+
ATTENUATION



BW-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

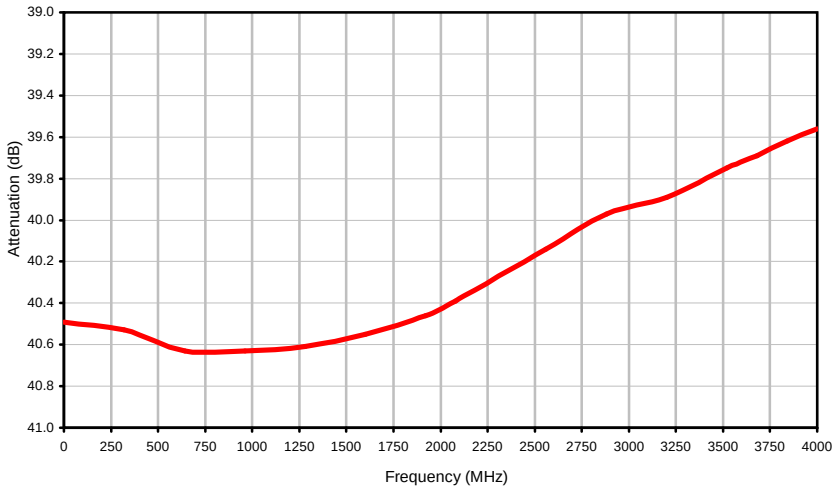
FREQUENCY (MHz)	ATTENUATION (dB)	RETURN LOSS (dB)
1.00	40.49	37.62
320.92	40.53	33.88
640.84	40.63	30.21
960.76	40.63	27.68
1280.68	40.61	25.82
1600.60	40.55	24.48
1920.52	40.46	23.56
2080.48	40.39	23.25
2560.36	40.14	22.66
2880.28	39.97	22.65
3200.20	39.89	22.85
3520.12	39.75	23.33
3680.08	39.69	23.58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

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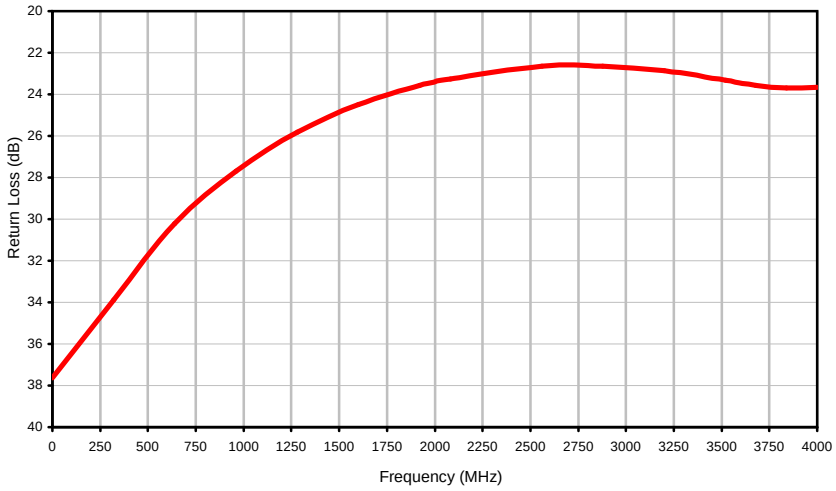
Fixed Attenuator BW-40N100W+

Typical Performance Curves

Attenuation



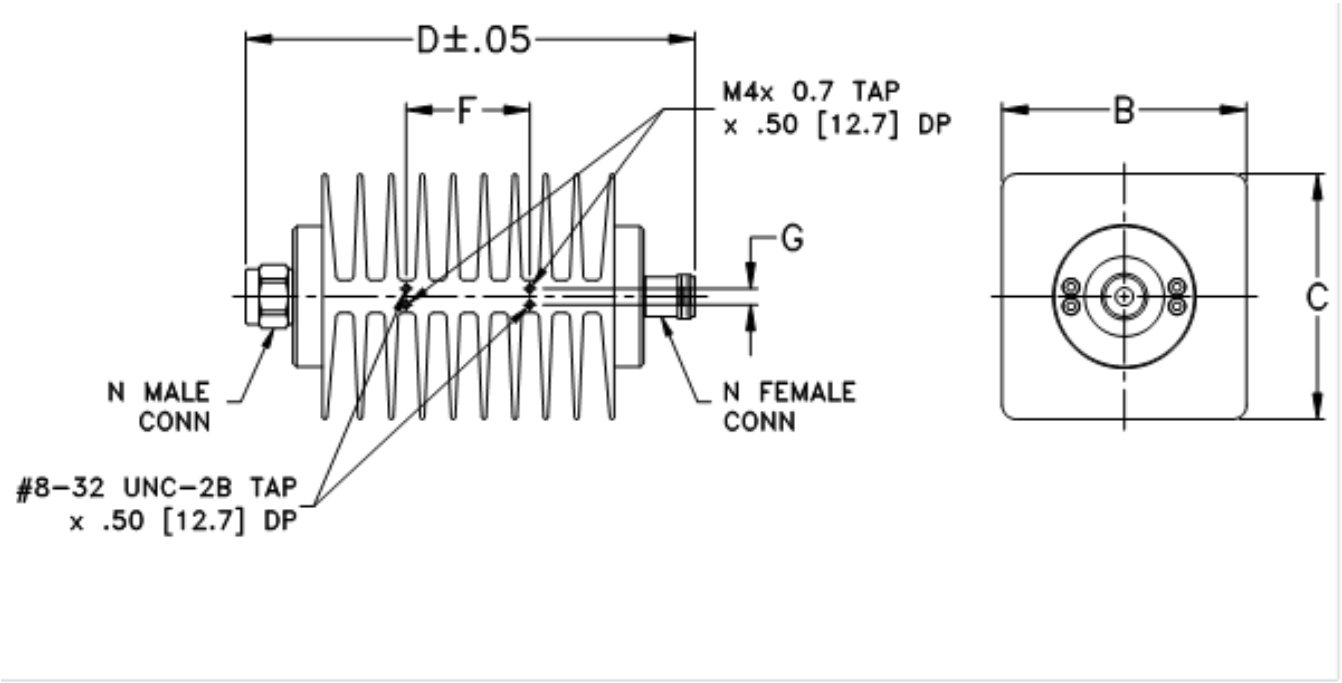
Return Loss



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Case Style GH

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.

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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

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