Coaxial

Precision Fixed Attenuator

BW-N10W50+

50Ω 10 dB DC to 18 GHz

CASE STYLE: GH1788

The Big Deal

- High Power Handling, 50W
- Excellent VSWR, 1.30 typ.
- Wide Frequency Range, DC to 18 GHz

Product Overview

The BW-N10W50+ 10 dB precision fixed attenuator achieves great flatness versus frequency from DC to 18 GHz and handles high power signals up to 50W. High power handling, excellent VSWR, and precise performance make the BW-N10W50+ ideal for applications including high power measurement, improving matching, test setups, and other functions demanding accurate attenuation and high power capability.

Key Features

Feature	Advantages
Wide Frequency Range	DC to 18 GHz frequency range gives the BW-N10W50+ attenuator versatile application functionality.
Excellent VSWR, 1.30 typ.	Well-matched for 50Ω systems; reduces effects of phase variation.
Flat attenuation	Accurate performance within ±0.5 dB over the full frequency range.
Rugged Construction	Excellent durability for a long lifetime of use.
Heat Dissipation Fins	Designed to dissipate heat efficiently, the BW-N10W50+ requires no external cooling equipment.
Compact Size (2.65” x 2.65” x 4.5”)	Outstanding performance capability and power handling without prohibitive space constraints.

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

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Connectors	Model	Price	Qty.
N-type	BW-N10W50+	$ 209.00 ea.	(1-9)

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

Maximum Ratings

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

**85°C with output into open or short.
Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

IN (50W)	N-Male
OUT	N-Female

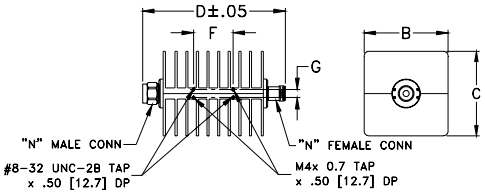
Features

- DC to 18 GHz
- precise attenuation
- excellent VSWR, 1.30 typ
- passivated stainless steel N-type connectors
- unidirectional

Applications

- matching
- instrumentation
- test set-ups
- high power measurements

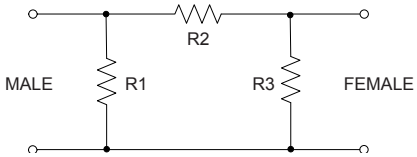
Outline Drawing



Outline Dimensions (inch / mm)

B	C	D	E	F	G	wt.
2.65	2.65	4.50	--	1.25	.25	grams
67.31	67.31	114.30	--	31.75	6.35	720.0

Simplified Electrical Schematic



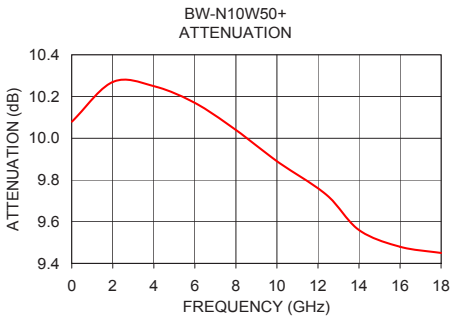
Electrical Specifications at 25°C

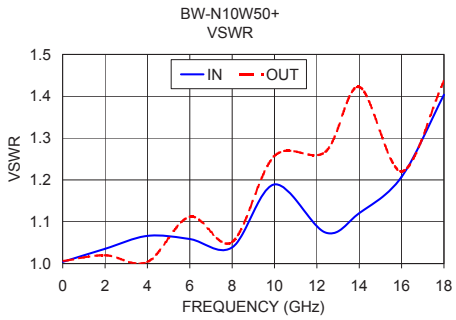
Parameter		Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range			DC	—	18	GHz
Attenuation		DC - 18	9.0	10.0	11.0	dB
VSWR	IN	DC - 18	—	—	1.45	:1
	OUT	DC - 18	—	—	1.5	
Input Power[1]		DC - 18	—	—	50	W

1. Max. power at 25°C ambient, derate linearly to 20W at 100°C. Peak power 500W max. 5µsec. pulse width, 100Hz PRF, input N-Male. 5W max. at N-Female.

Typical Performance Data

Frequency (GHz)	Attenuation (dB)	VSWR (:1)	
		IN	OUT
0.01	10.08	1.00	1.01
2.0	10.27	1.04	1.02
4.0	10.25	1.07	1.00
6.0	10.17	1.06	1.11
8.0	10.04	1.04	1.05
10.0	9.89	1.19	1.26
12.4	9.73	1.07	1.27
14.0	9.56	1.12	1.42
16.0	9.48	1.21	1.22
18.0	9.45	1.40	1.44





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