

# Precision Fixed Attenuator

## BW-N3W20+

50Ω 20W 3dB DC to 18 GHz

### 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.

### Features

- DC to 18 GHz
- precise attenuation
- excellent VSWR, 1.30:1 typ
- stainless steel N male and female connectors

### Applications

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



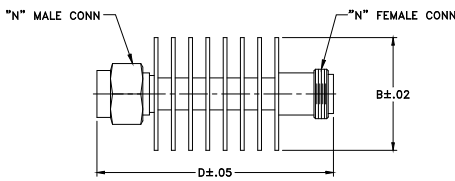
Generic photo used for illustration purposes only  
CASE STYLE: DC1645

Connectors Model  
N-Female N-Male BW-N3W20+

### +RoHS Compliant

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	wt
--	1.50	--	3.04	--	grams
--	38.10	--	77.22	--	86.0

### Electrical Specifications at 25°C

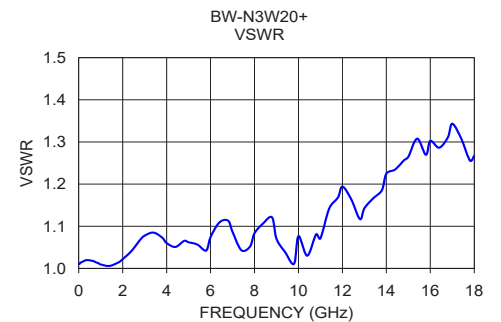
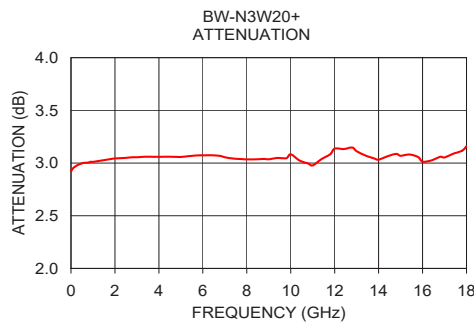
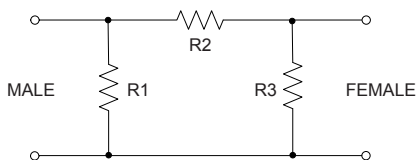
Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
<b>Frequency Range</b>		DC	—	18	GHz
<b>Attenuation</b>	DC - 18	—	3	—	dB
	DC - 12.4	2.5	—	3.5	
	12.4 - 18	2.25	—	3.75	
<b>VSWR</b>	DC - 6	—	—	1.3	:1
	6 - 12.4	—	—	1.3	
	12.4 - 18	—	—	1.4	
<b>Input Power<sup>1</sup></b>	DC - 18	—	—	20	W

1. Max. power at 25°C ambient, derate linearly to 4W at 100°C. Peak power 500W max. 5µsec. pulse with, 100Hz PRF.

### Typical Performance Data

Frequency (GHz)	Attenuation (dB)	VSWR (:1)
0.01	2.92	1.01
2.0	3.04	1.02
4.0	3.06	1.06
6.0	3.07	1.07
8.0	3.03	1.08
10.0	3.08	1.08
12.4	3.13	1.16
14.0	3.03	1.22
16.0	3.01	1.30
18.0	3.16	1.27

### Electrical Schematic



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

