

# Precision Fixed Attenuator

## BW-N20W20+

50Ω 20W 20dB 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 18000 MHz
- precise attenuation
- excellent VSWR, 1.30 typ
- stainless steel N male and female connectors

### Applications

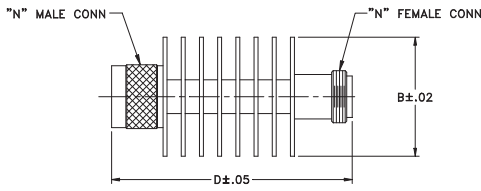
- matching
- instrumentation
- test set-ups
- high power measurements

CASE STYLE: DC1645

Connectors	Model	Price	Qty.
N-Female N-Male	BW-N20W20+	\$139.95 ea.	(1-49)

**+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

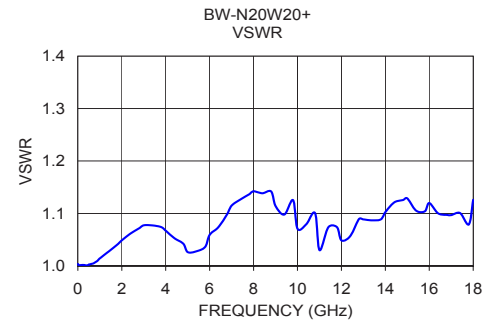
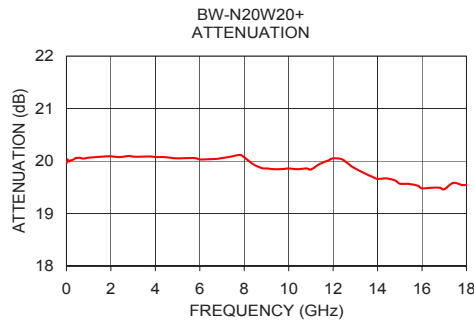
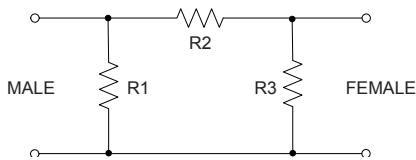
Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	18	GHz
Attenuation	DC - 18	—	20	—	dB
	DC - 12.4	19.25	—	20.75	
	12.4 - 18	19.0	—	21.0	
VSWR	DC - 6	—	—	1.3	:1
	6 - 12.4	—	—	1.3	
	12.4 - 18	—	—	1.40	
Input Power <sup>1</sup>		—	—	20	W

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	19.96	1.00
2.0	20.09	1.05
4.0	20.07	1.07
6.0	20.03	1.06
8.0	20.07	1.14
10.0	19.86	1.07
12.4	20.03	1.06
14.0	19.66	1.10
16.0	19.48	1.12
18.0	19.55	1.13

### Electrical Schematic



### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

