



**THE DATASHEET OF  
BW-S20W20+**



Coaxial

# Precision Fixed Attenuator

## BW-S20W20+

50Ω 20W 20dB DC to 18 GHz



Generic photo used for illustration purposes only

CASE STYLE: DC1660

Connectors	Model
SMA-F SMA-M	BW-S20W20+

**+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.

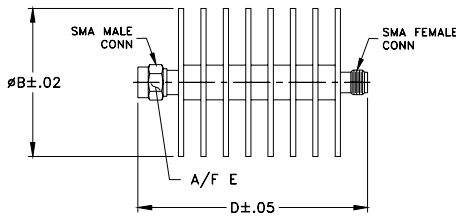
### Features

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

### Applications

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

### Outline Drawing



### Outline Dimensions (inch/mm)

	A	B	C	D	E	wt
--	1.50	--	2.33	.312	grams	
--	38.10	--	59.18	7.92	49.2	

### Electrical Specifications at 25°C

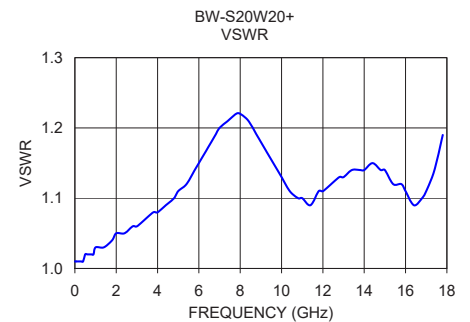
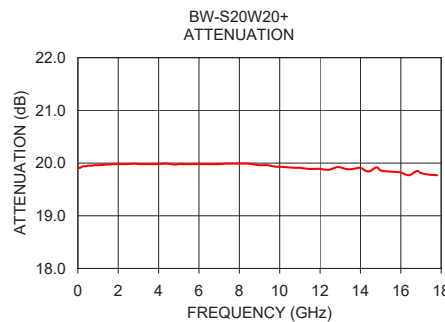
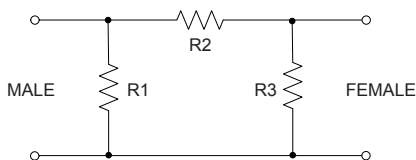
Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	18	GHz
Attenuation	DC - 18	—	20	—	dB
	DC - 12.4	19.25	—	20.75	
	12.4 - 18	19.0	—	21.0	
VSWR	DC - 6	—	—	1.3	:1
	6 - 12.4	—	—	1.3	
	12.4 - 18	—	—	1.40	
Input Power <sup>1</sup>		—	—	20	W

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

### Typical Performance Data

Frequency (GHz)	Attenuation (dB)	VSWR (:1)
0.01	19.90	1.01
2.0	19.98	1.05
4.0	19.98	1.08
6.0	19.98	1.15
8.0	19.99	1.22
10.0	19.93	1.13
12.4	19.87	1.12
14.0	19.91	1.14
16.0	19.82	1.11
18.0	19.78	1.23

### 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)



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