

# Precision Fixed Attenuator

## BW-S10W20+

50Ω 20W 10dB DC to 18 GHz



Generic photo used for illustration purposes only

CASE STYLE: DC1660

Connectors	Model
SMA-F SMA-M	BW-S10W20+

**+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.	

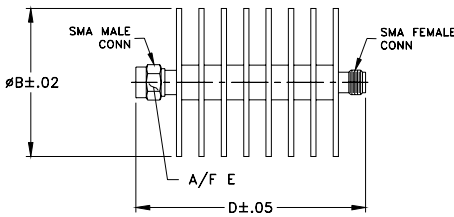
### Features

- 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

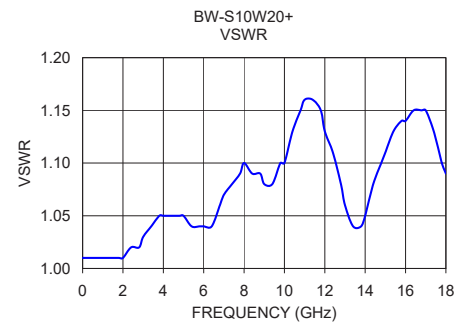
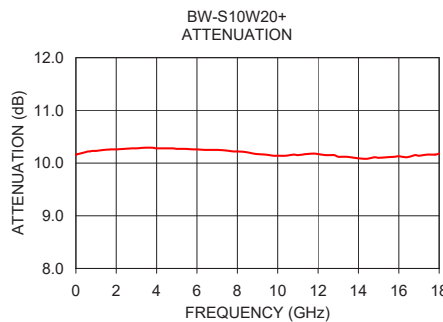
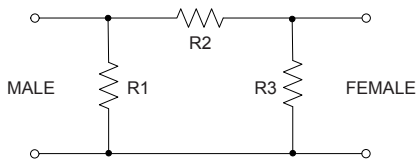
Parameter	Condition (GHz)	Min.	Typ.	Max.	Unit
Frequency Range		DC	—	18	GHz
Attenuation	DC - 18	—	10	—	dB
	DC - 12.4	9.25	—	10.75	
	12.4 - 18	9.0	—	11.0	
VSWR	DC - 6	—	—	1.3	:1
	6 - 12.4	—	—	1.3	
	12.4 - 18	—	—	1.4	
Input Power <sup>1</sup>	DC - 18	—	—	20	W

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	10.15	1.01
2.0	10.26	1.01
4.0	10.28	1.05
6.0	10.26	1.04
8.0	10.22	1.10
10.0	10.14	1.10
12.4	10.15	1.11
14.0	10.09	1.05
16.0	10.13	1.14
18.0	10.18	1.09

### 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)

