

# Precision Fixed Attenuator

50Ω 2W 20dB DC to 18000 MHz

## BW-S20W2+



CASE STYLE: FF659

Connectors Model  
SMA Female-SMA Male BW-S20W2+

### +RoHS Compliant

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

### Maximum Ratings

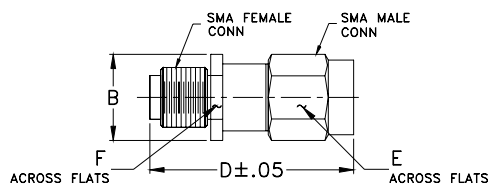
Operating Temperature -55°C to 100°C

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

\*\*With mated connectors. Unmated, 85°C max.

Permanent damage may occur if any of these limits are exceeded.

### Outline Drawing



### Outline Dimensions (inch/mm)

B	D	E	F	wt
.36	.99	.312	.312	grams
9.14	25.15	7.92	7.92	5.1

### Features

- DC to 18000 MHz
- precise attenuation
- excellent VSWR, 1.20 typ.
- stainless steel SMA male and female connectors

### Applications

- matching
- instrumentation
- test set-ups

### Electrical Specifications

FREQ. RANGE (MHz)	ATTENUATION <sup>1</sup> (dB)		VSWR <sup>2</sup> (:1)			MAX. INPUT POWER <sup>3</sup> (W)
	Nom.	ACCURACY	DC-4 GHz Max.	4-8 GHz Max.	8-12.4 GHz Max.	
$f_L - f_U$						
DC-18000	20	-0.5, +0.8	1.20	1.25	1.30	2

1. At 25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: .0004dB/dB/°C typ.

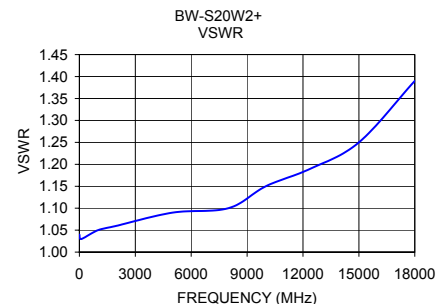
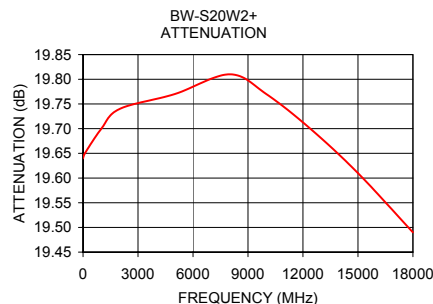
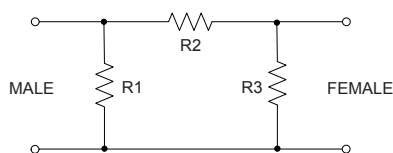
2. VSWR from 12.4 to 18 GHz, 1.6:1 typ.

3. Average power at 25°C ambient, derate linearly to 0.5W at 100°C. Peak Power 125W max. 5μsec pulse width, 100 Hz PRF

### Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
1.00	19.64	1.04
100.00	19.65	1.03
1000.00	19.70	1.05
1999.90	19.74	1.06
5000.00	19.77	1.09
7999.90	19.81	1.10
9999.90	19.77	1.15
12400.10	19.70	1.19
15000.00	19.61	1.25
18000.00	19.49	1.39

### 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)