

# Precision Fixed Attenuator

## BW-S1W2+

50Ω 2W 1dB DC to 18000 MHz



Generic photo used for illustration purposes only

CASE STYLE: FF658

Connectors	Model
SMA Female-SMA Male	BW-S1W2+

**+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.

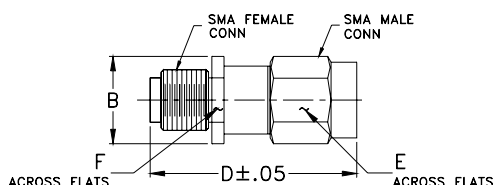
### Features

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

### Applications

- matching
- instrumentation
- test set-ups

### Outline Drawing



### Outline Dimensions (inch/mm)

B	D	E	F	wt
.36	.85	.312	.312	grams
9.14	21.59	7.92	7.92	4.3

### Electrical Specifications

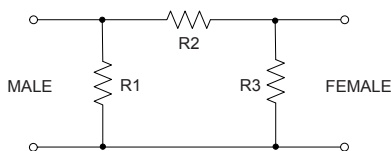
FREQ. RANGE (MHz)	ATTENUATION <sup>1</sup> (dB)		VSWR <sup>2</sup> (:1)			MAX. INPUT POWER <sup>3</sup> (W)
	Nom.	ACCURACY	DC-4 GHz Max.	4-8 GHz Max.	8-12.4 GHz Max.	
$f_L$ - $f_U$						
DC-18000	1	±0.40	1.20	1.25	1.30	2

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

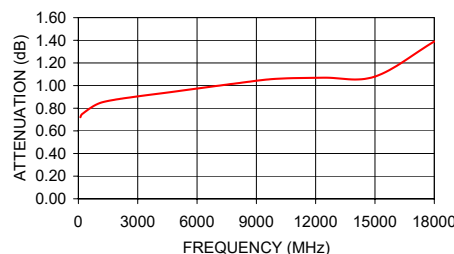
### Typical Performance Data

Frequency (MHz)	Attenuation (dB)	VSWR (:1)
100.00	0.72	1.05
199.90	0.75	1.04
1000.00	0.84	1.04
1999.90	0.88	1.04
5000.00	0.95	1.04
7999.90	1.02	1.08
9999.90	1.06	1.14
12400.10	1.07	1.24
15000.00	1.08	1.31
18000.00	1.39	1.62

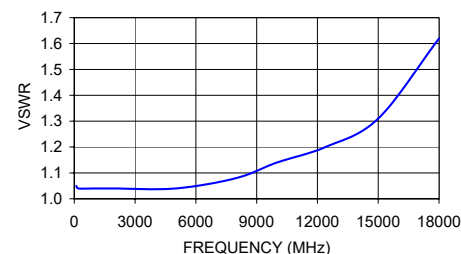
### Electrical Schematic



BW-S1W2+ ATTENUATION



BW-S1W2+ VSWR



### 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)

