

Precision Fixed Attenuator

BW-S20W2+

50Ω 2W 20dB DC to 18000 MHz



Generic photo used for illustration purposes only

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.

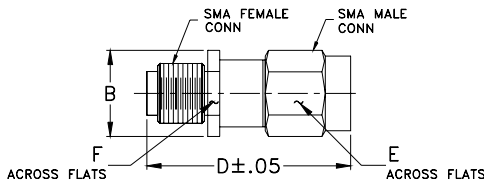
Features

- 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 | .99 | .312 | .312 | grams |
| 9.14 | 25.15 | 7.92 | 7.92 | 5.1 |

Electrical Specifications

| FREQ. RANGE (MHz) | ATTENUATION ¹ (dB) | | VSWR ² (:1) | | | MAX. INPUT POWER ³ (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.

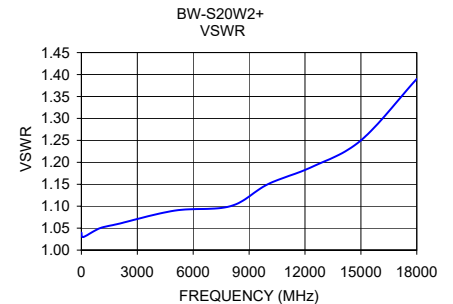
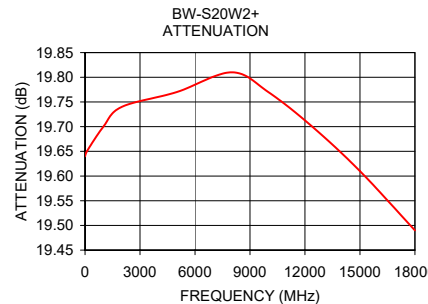
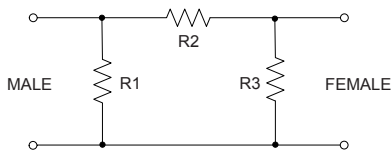
2. VSWR from 12.4 to 18 GHz, 1.6:1 typ.

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

