



Mini-Circuits®

COAXIAL

Precision Fixed Attenuator **BW-S30W2+**

50Ω 2 W 30 dB DC to 18 GHz SMA-Female to SMA-Male

## FEATURES

- DC to 18 GHz
- Precision Attenuation
- Excellent VSWR, 1.20 Typ.
- Stainless Steel SMA Male and Female Connectors



Generic photo used for illustration purposes only

## APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups

|            |                        |
|------------|------------------------|
| Model No.  | BW-S30W2+              |
| Case Style | FF659                  |
| Connectors | SMA-Female to SMA-Male |

**+RoHS Compliant**

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

## ELECTRICAL SPECIFICATIONS AT +25°C

| Parameter                          | Frequency (GHz) | Min. | Typ.  | Max. | Unit |
|------------------------------------|-----------------|------|-------|------|------|
| Frequency Range                    |                 | DC   |       | 18   | GHz  |
| Attenuation, Nominal               |                 |      | 30    |      | dB   |
| Attenuation, Accuracy <sup>1</sup> | DC - 18         |      | ±0.85 |      | dB   |
| VSWR <sup>2</sup>                  | DC - 4          |      |       | 1.20 | :1   |
|                                    | 4 - 8           |      |       | 1.25 |      |
|                                    | 8 - 12.4        |      |       | 1.30 |      |
| Input Power <sup>3</sup>           |                 |      |       | 2.0  | W    |

1. At +25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: .0004 dB/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 0.5 W at +100°C. Peak Power 125 W max. 5 μsec. pulse width, 100 Hz PRF.

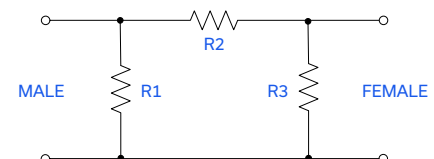
## ABSOLUTE MAXIMUM RATINGS

| Parameter                        | Ratings         |
|----------------------------------|-----------------|
| Operating Temperature            | -55°C to +100°C |
| Storage Temperature <sup>4</sup> | -55°C to +100°C |

4. With mated connectors. Unmated, +85°C max.

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

## ELECTRICAL SCHEMATIC



REV. F  
ECO-024322  
BW-S30W2+  
MCL NY  
250127





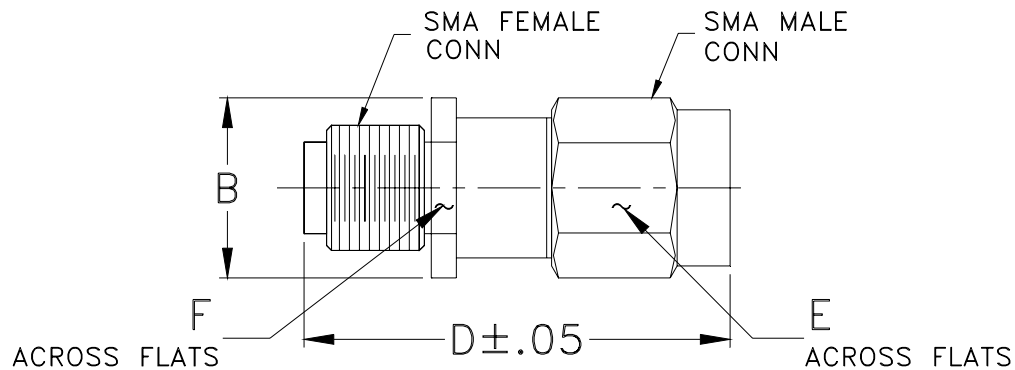
Mini-Circuits

COAXIAL

# Precision Fixed Attenuator **BW-S30W2+**

50Ω 2 W 30 dB DC to 18 GHz SMA-Female to SMA-Male

## 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   |



Mini-Circuits

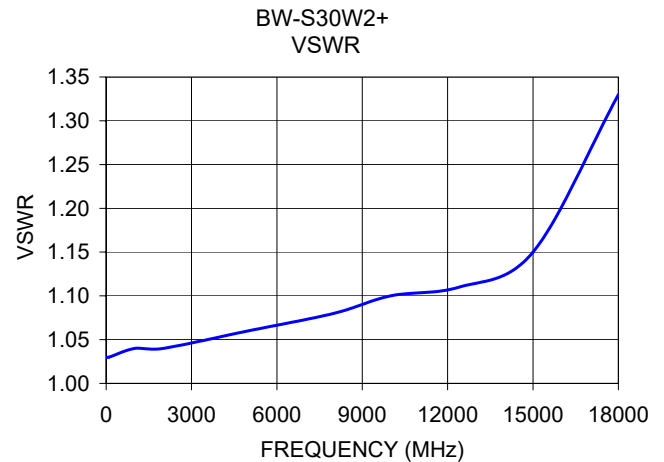
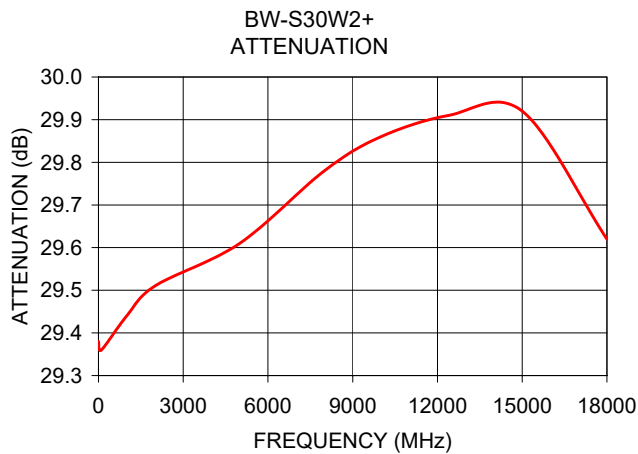
COAXIAL

# Precision Fixed Attenuator **BW-S30W2+**

50Ω 2 W 30 dB DC to 18 GHz SMA-Female to SMA-Male

## TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 1.00            | 29.38            | 1.03      |
| 100.00          | 29.36            | 1.03      |
| 1000.00         | 29.44            | 1.04      |
| 1999.90         | 29.51            | 1.04      |
| 5000.00         | 29.61            | 1.06      |
| 7999.90         | 29.78            | 1.08      |
| 9999.90         | 29.86            | 1.10      |
| 12400.10        | 29.91            | 1.11      |
| 15000.00        | 29.92            | 1.15      |
| 18000.00        | 29.62            | 1.33      |



### 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-Circuits' 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/terms/viewterm.html](http://www.minicircuits.com/terms/viewterm.html)

