*Coaxial*

# Precision Fixed Attenuator

## BW-S30W20+

50Ω 20W 30dB DC to 18 GHz

CASE STYLE: DC1660

| Connectors | Model |
|---|---|
| **SMA-F SMA-M** | BW-S30W20+ |

***+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.

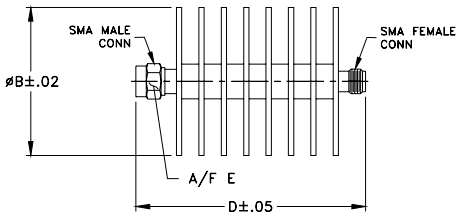
### Features

- 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

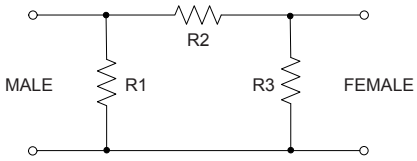
| Parameter | Condition (GHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| **Frequency Range** | | DC | — | 18 | GHz |
| **Attenuation** | DC - 18 | — | 30 | — | dB |
| | DC- 12.4 | 29.0 | — | 31.0 | |
| | 12.4 - 18 | 28.5 | — | 31.5 | |
| **VSWR** | DC - 6 | — | — | 1.30 | :1 |
| | 6 - 12.4 | — | — | 1.3 | |
| | 12.4 - 18 | — | — | 1.4 | |
| **Input Power**[1] | | — | — | 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.

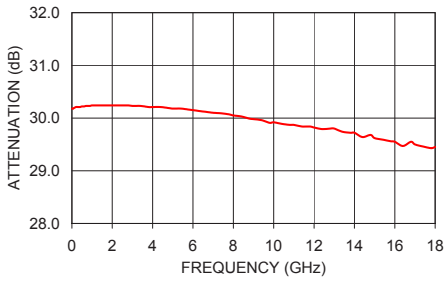
### Typical Performance Data

| Frequency (GHz) | Attenuation (dB) | VSWR (:1) |
|---|---|---|
| 0.01 | 30.18 | 1.01 |
| 2.0 | 30.24 | 1.04 |
| 4.0 | 30.21 | 1.05 |
| 6.0 | 30.15 | 1.08 |
| 8.0 | 30.05 | 1.13 |
| 10.0 | 29.92 | 1.04 |
| 12.4 | 29.79 | 1.09 |
| 14.0 | 29.72 | 1.07 |
| 16.0 | 29.55 | 1.05 |
| 18.0 | 29.45 | 1.15 |

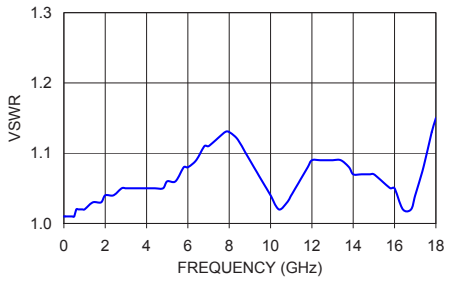
### Electrical Schematic




BW-S30W20+
ATTENUATION




BW-S30W20+
VSWR




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