



Mini-Circuits®

COAXIAL

## Precision Fixed Attenuator

BW-N8W5+

50Ω 5 W 8 dB DC to 18 GHz N-Female to N-Male

## FEATURES

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

## APPLICATIONS

- Impedance Matching
- Instrumentation
- Test setups



Generic photo used for illustration purposes only

|            |                    |
|------------|--------------------|
| Model No.  | BW-N8W5+           |
| Case Style | DC736              |
| Connectors | N-Female to N-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               |                 |      | 8     |      | dB   |
| Attenuation, Accuracy <sup>1</sup> | DC - 18         |      | ±0.60 |      | dB   |
| VSWR <sup>2</sup>                  | DC - 4          |      |       | 1.20 | :1   |
|                                    | 4 - 8           |      |       | 1.25 |      |
|                                    | 8 - 12.4        |      |       | 1.30 |      |
| Input Power <sup>3</sup>           |                 |      |       | 5.0  | 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 2 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.

REV. E  
ECO-024310  
BW-N8W5+  
MCL NY  
250124





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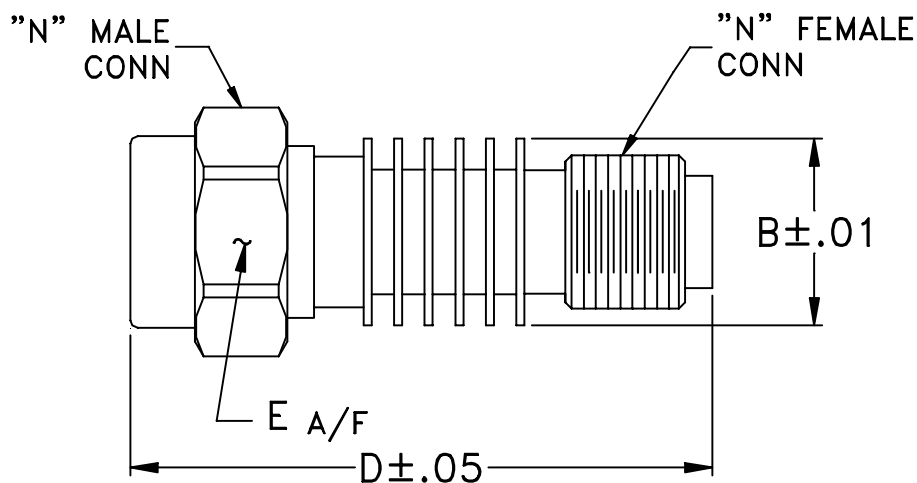
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## OUTLINE DRAWING



## OUTLINE DIMENSIONS (Inch mm)

| B     | D     | E     | wt    |
|-------|-------|-------|-------|
| .61   | 1.90  | .812  | grams |
| 15.49 | 48.26 | 20.62 | 49.7  |



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# Precision Fixed Attenuator

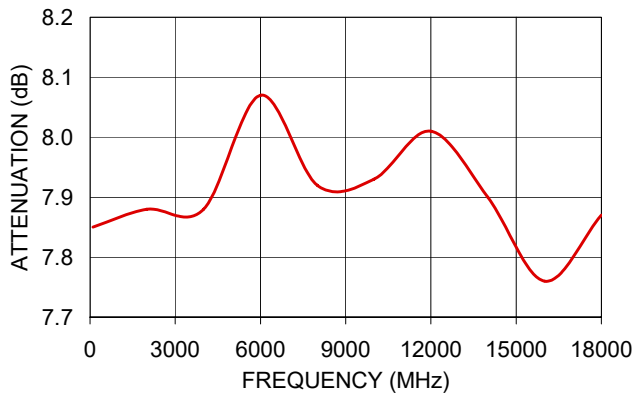
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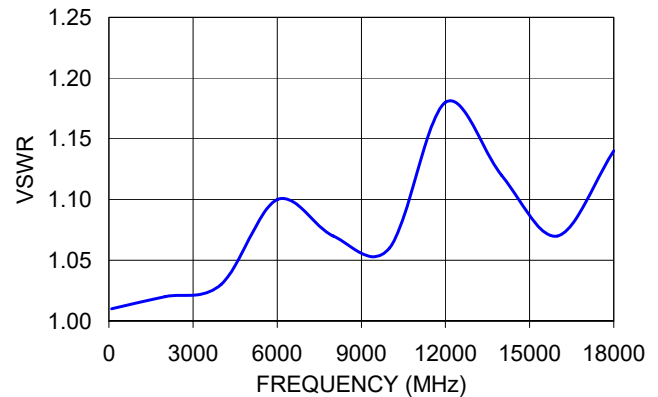
## TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 100             | 7.85             | 1.01      |
| 2000            | 7.88             | 1.02      |
| 4000            | 7.88             | 1.03      |
| 6000            | 8.07             | 1.10      |
| 8000            | 7.92             | 1.07      |
| 10000           | 7.93             | 1.06      |
| 12000           | 8.01             | 1.18      |
| 14000           | 7.90             | 1.12      |
| 16000           | 7.76             | 1.07      |
| 18000           | 7.87             | 1.14      |

BW-N8W5  
ATTENUATION



BW-N8W5  
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-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)

