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COAXIAL

Precision Fixed Attenuator **BW-N3W20+**

50Ω 20 W 3 dB DC to 18 GHz N-Female to N-Male

## FEATURES

- DC to 18 GHz
- Precision Attenuation
- Excellent VSWR, 1.30:1 Typ.
- Stainless Steel N-Male and Female Connectors

## APPLICATIONS

- Impedance Matching
- Instrumentation
- Test Setups
- High Power Measurements



Generic photo used for illustration purposes only

|            |                    |
|------------|--------------------|
| Model No.  | BW-N3W20+          |
| Case Style | DC1645             |
| 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                | Condition (GHz) | Min. | Typ. | Max. | Unit |
|--------------------------|-----------------|------|------|------|------|
| Frequency Range          |                 | DC   |      | 18   | GHz  |
| Attenuation              | DC - 18         |      | 3    |      |      |
|                          | DC - 12.4       | 2.5  |      | 3.5  | dB   |
|                          | 12.4 - 18       | 2.25 |      | 3.75 |      |
| VSWR                     | DC - 6          |      |      | 1.3  |      |
|                          | 6 - 12.4        |      |      | 1.3  | :1   |
|                          | 12.4 - 18       |      |      | 1.4  |      |
| Input Power <sup>1</sup> | DC - 18         |      |      | 20   | W    |

1. Max. Power at +25°C ambient, derate linearly to 4 W +100°C. Peak power 500 W max. 5 μsec. pulse with, 100 Hz PRF.

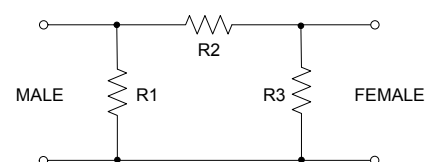
ABSOLUTE MAXIMUM RATINGS<sup>2</sup>

| Parameter                          | Ratings         |
|------------------------------------|-----------------|
| Operating Temperature <sup>3</sup> | -55°C to +100°C |
| Storage Temperature                | -55°C to +100°C |

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

3. +85°C with output into open or short.

## ELECTRICAL SCHEMATIC



REV. D  
ECO-024469  
BW-N3W20+  
MCL NY  
250210





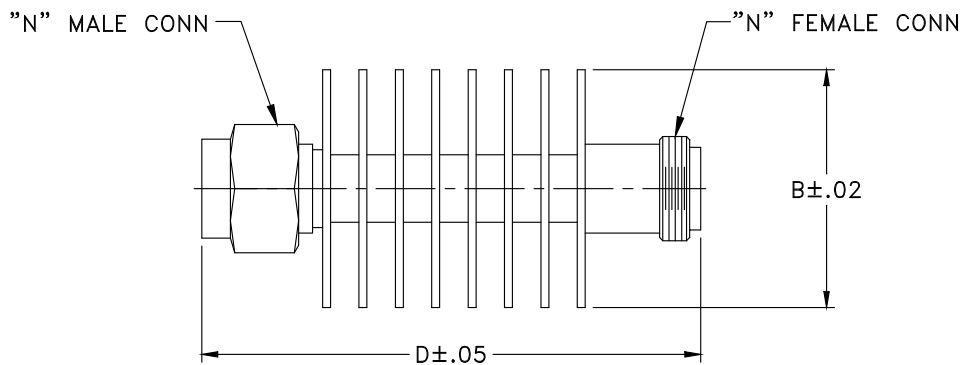
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## OUTLINE DRAWING



## OUTLINE DIMENSIONS (Inch mm)

| A  | B     | C  | D     | E  | wt    |
|----|-------|----|-------|----|-------|
| -- | 1.50  | -- | 3.04  | -- | grams |
| -- | 38.10 | -- | 77.22 | -- | 86.0  |



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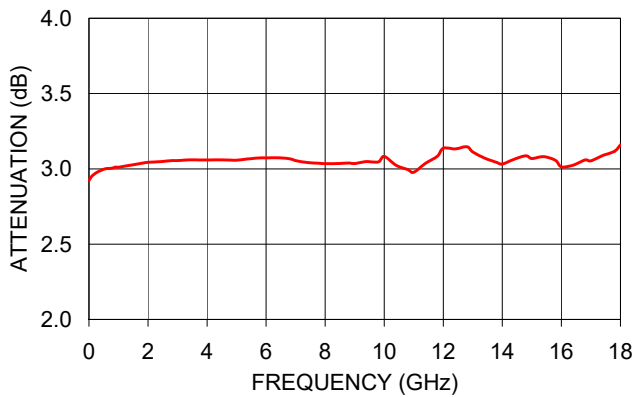
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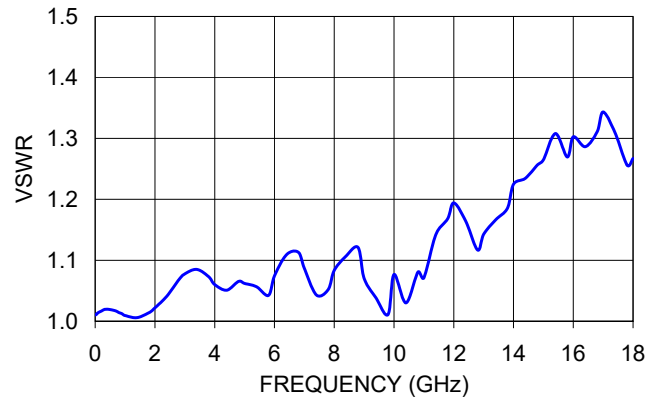
## TYPICAL PERFORMANCE DATA AND CHARTS

| Frequency (GHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 0.01            | 2.92             | 1.01      |
| 2               | 3.04             | 1.02      |
| 4               | 3.06             | 1.06      |
| 6               | 3.07             | 1.07      |
| 8               | 3.03             | 1.08      |
| 10              | 3.08             | 1.08      |
| 12              | 3.13             | 1.16      |
| 14              | 3.03             | 1.22      |
| 16              | 3.01             | 1.30      |
| 18              | 3.16             | 1.27      |

BW-N3W20+  
ATTENUATION



BW-N3W20+  
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)

