# Coaxial, Millimeter Wave

# **Precision Fixed Attenuator**

# BW-VX-1W54+ Series

3,6,10,20 dB  $50\Omega$ 1W DC to 50 GHz

# The Big Deal

- Extremely wideband, DC to 50 GHz
- 2.4mm Female 2.4 mm Male
- Excellent VSWR



## **Product Overview**

The BW-VX-1W54+ Series of precision fixed attenuators achieves extremely wide frequency range with excellent VSWR. Available in a variety of attention values for different requirements, these units support a broad range of system and testing applications. Precise performance, excellent VSWR (1.2:1 typ.) and wide band features make these models ideal solutions for systems requiring precise attenuation across very wide frequency range.

# **Key Features**

| Feature                               | Advantages   |  |  |
|---------------------------------------|--|--|--|
| Extremely wideband, DC to 50 GHz      | Ideal for an exceptionally wide variety of applications.   |  |  |
| Excellent VSWR, 1.20 typ.             | Efficient power utilization with low power reflected back to source.                                     |  |  |
| Passivated stainless steel connectors | Rugged construction withstands harsh environmental conditions for high reliability and long life of use. |  |  |

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.ninicircuits.com/MCLStore/terms.jsp

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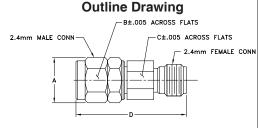
# BW-V10-1W54+

DC to 50 GHz  $50\Omega$ **1W** 10dB

## **Maximum Ratings**

Operating Temperature -55°C to 100°C Storage Temperature -55°C to 100°C

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



## Outline Dimensions (inch )

| wt    | E | D     | С     | В     | Α     |
|-------|---|-------|-------|-------|-------|
| grams |   | 0.871 | 0.281 | 0.312 | 0.360 |
| 5.44  |   | 22.12 | 7.14  | 7.93  | 9.14  |

#### **Features**

- DC to 50 GHz
- precise attenuation
- excellent VSWR, 1.20 typ.
- · passivated stainless steel connectors

CASE STYLE: DJ2264

Connectors Model BW-V10-1W54+ 2.4mm-Female - 2.4mm Male

#### +RoHS Compliant

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

## **Applications**

- matching
- instrumentation
- test set-ups

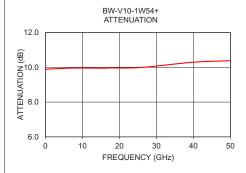
Electrical Specifications at 25°C

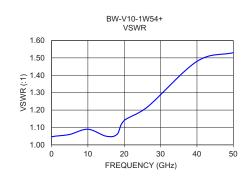
| Parameter                | Condition (GHz) | Min. | Тур. | Max. | Unit |
|--------------------------|-----------------|------|------|------|------|
| Frequency Range          |                 | DC   | _    | 50   | GHz  |
|                          | DC - 26.5       | 9.5  | 10.0 | 10.5 |      |
| Attenuation              | 26.5 - 40       | 9.0  | 10.1 | 11.0 | dB   |
|                          | 40 - 50         | 8.5  | 10.2 | 11.5 |      |
|                          | DC - 26.5       | _    | 1.2  | 1.35 |      |
| VSWR                     | 26.5 - 40       | _    | 1.5  | 1.6  | :1   |
|                          | 40 - 50         | _    | 1.5  | 1.75 |      |
| Input Power <sup>1</sup> | DC - 50         | _    |      | 1    | W    |

<sup>1.</sup> Max. power at 25°C ambient, derate linearly to 0.1W at 100°C.

### **Typical Performance Data**

| Frequency<br>(GHz) | Attenuation<br>(dB) | VSWR<br>(:1) |
|--------------------|---------------------|--------------|
| 0.01               | 9.88                | 1.05         |
| 1.00               | 9.90                | 1.05         |
| 5.00               | 9.94                | 1.06         |
| 10.00              | 9.96                | 1.09         |
| 15.00              | 9.95                | 1.05         |
| 18.00              | 9.97                | 1.06         |
| 20.00              | 9.96                | 1.14         |
| 26.50              | 10.00               | 1.22         |
| 40.00              | 10.29               | 1.48         |
| 50.00              | 10.38               | 1.53         |





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