



Mini-Circuits

COAXIAL MILLIMETER WAVE

Precision Fixed Attenuator **BW-V5-1W54+**

50Ω 1W 5dB DC to 50 GHz

THE BIG DEAL

- DC to 50 GHz
- Precise attenuation
- Excellent VSWR, 1.20 typ.
- Passivated stainless steel connectors



Generic photo used for illustration purposes only

| | |
|------------|--------------------------|
| Model No. | BW-V5-1W54+ |
| Case Style | DJ2264 |
| Connectors | 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

PRODUCT OVERVIEW

The BW-VX-1W54+ Series of precision fixed attenuators achieves extremely wide frequency range with excellent VSWR. Available in a variety of attenuation values for different requirements, these units support a broad range of system and testing applications. Precise performance, excellent VSWR 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. |



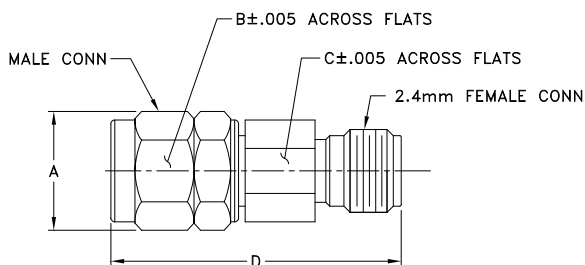
Precision Fixed Attenuator **BW-V5-1W54+**

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 DRAWING



OUTLINE DIMENSIONS (Inch mm)

| A | B | C | D | E | wt |
|-------|-------|-------|-------|----|-------|
| 0.360 | 0.312 | 0.281 | 0.871 | -- | grams |
| 9.14 | 7.93 | 7.14 | 22.12 | -- | 5.44 |

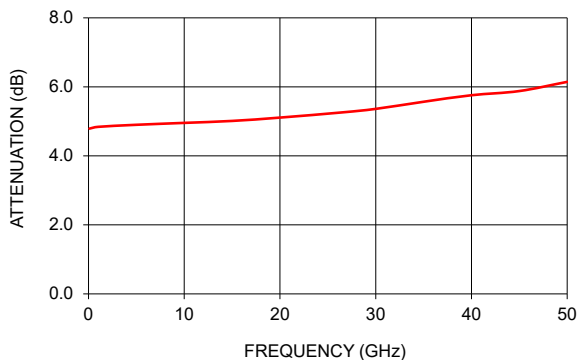
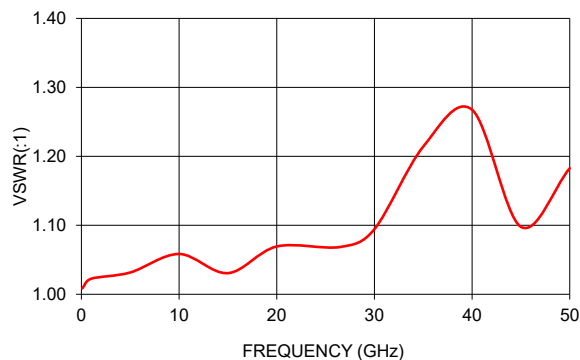
ELECTRICAL SPECIFICATIONS AT 25°C

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Units |
|--------------------------|-----------------|------|------|------|-------|
| Frequency Range | | DC | | 50 | GHz |
| Attenuation | DC - 26.5 | 4.5 | 5 | 5.5 | dB |
| | 26.5 - 40 | 4 | 5.5 | 6 | |
| | 40 - 50 | 3.5 | 5.9 | 6.5 | |
| VSWR | DC - 26.5 | — | 1.06 | 1.35 | :1 |
| | 26.5 - 40 | — | 1.18 | 1.6 | |
| | 40 - 50 | — | 1.2 | 1.75 | |
| Input Power ¹ | DC - 50 | — | — | 1 | W |

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

TYPICAL PERFORMANCE DATA

| Frequency (GHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 0.10 | 4.79 | 1.01 |
| 1.00 | 4.84 | 1.02 |
| 5.00 | 4.90 | 1.03 |
| 10.00 | 4.96 | 1.06 |
| 15.00 | 5.01 | 1.03 |
| 20.00 | 5.11 | 1.07 |
| 26.50 | 5.26 | 1.07 |
| 30.00 | 5.36 | 1.09 |
| 35.00 | 5.57 | 1.21 |
| 40.00 | 5.76 | 1.27 |
| 45.00 | 5.88 | 1.10 |
| 50.00 | 6.14 | 1.18 |

BW-V5-1W54+
ATTENUATIONBW-V5-1W54+
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

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