

Coaxial

Precision Fixed Attenuator

BW-S3W10+

50Ω 10W DC to 12400 MHz

The Big Deal

- Wideband, DC to 12.4 GHz
- Outstanding attenuation flatness
- Excellent VSWR, 1.15 typ up to 12.4 GHz



CASE STYLE: DC737-1

Product Overview

The BW-S3W10+ is a precision fixed attenuator operating over a wide frequency range with excellent flatness of attenuation. Precise attenuation excellent VSWR 1.15:1 typ and passivated stainless steel construction make these models ideal solutions for systems requiring precise attenuation across very wide frequency range.

Key Features

| Feature | Advantages |
|---|--|
| Wideband, DC to 12.4 GHz | Ideal for an exceptionally wide variety of applications. |
| Excellent VSWR, 1.15 dB typ up to 12.4 GHz | Efficient power utilization with low power reflected back to source. |
| Outstanding attenuation flatness, ± 0.3 | Provides precise, consistent attenuation across the entire frequency band, ideal for broadband and multi-band usage. |
| Passivated stainless steel connectors | Rugged construction withstands harsh environmental conditions for high reliability and long life of use. |

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



Coaxial

Precision Fixed Attenuator

50Ω 10W 3dB DC to 12.4 GHz

BW-S3W10+

Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C**

**With mated connectors. Unmated, 85°C max.

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

Features

- DC to 12.4 GHz
- precise attenuation
- excellent VSWR, 1.07 typ
- Passivated stainless steel SMA male and female connectors

Applications

- matching
- instrumentation
- test set-ups



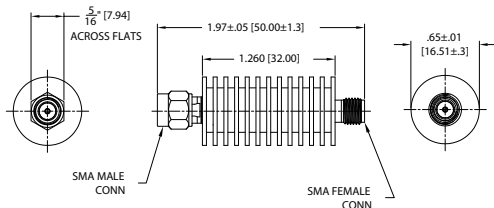
CASE STYLE: DC737-1

Connectors Model
SMA-Fem to SMA-Male BW-S3W10+

+RoHS Compliant

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

Outline Drawing



Weight: 9.1 Grams

Dimensions are in inches (mm). Tolerances: 2 Pl.±.03; 3 Pl.±.010

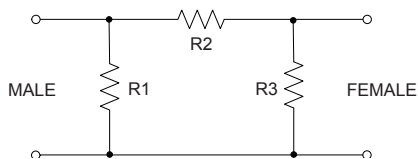
Electrical Specifications at 25°C

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Unit |
|--------------------------|-----------------|------|------|------|------|
| Frequency Range | | DC | — | 12.4 | GHz |
| Attenuation ¹ | DC - 12.4 | 2.65 | 3 | 3.40 | dB |
| VSWR | DC - 8 | — | 1.07 | 1.20 | :1 |
| | 8 - 12.4 | — | 1.15 | 1.30 | |
| Input Power ² | DC - 12.4 | — | — | 10 | W |

1. At 25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: 0.0015 dB/°C typ.

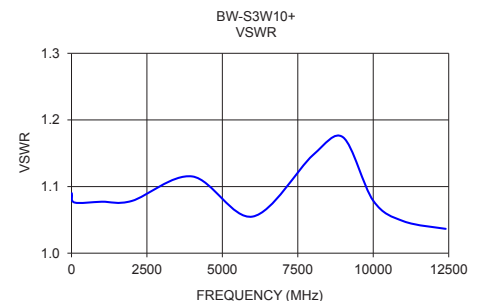
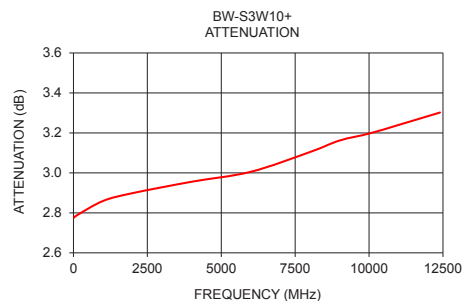
2. Max. power at 25°C ambient, derate linearly to 3.25W at 100°C. Peak power 500W max. 5µsec. pulse width, 100Hz PRF.

Simplified Electrical Schematic



Typical Performance Data

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 10 | 2.78 | 1.09 |
| 100 | 2.79 | 1.08 |
| 1000 | 2.86 | 1.08 |
| 2000 | 2.90 | 1.08 |
| 4000 | 2.96 | 1.12 |
| 6000 | 3.01 | 1.05 |
| 8000 | 3.10 | 1.15 |
| 9000 | 3.16 | 1.17 |
| 10000 | 3.20 | 1.08 |
| 11000 | 3.24 | 1.05 |
| 12400 | 3.30 | 1.04 |



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