

Coaxial

# Precision Fixed Attenuator

**BW-KM-2W44+ Series**

50Ω    2W    3,6,10,20 dB    DC to 40 GHz

## The Big Deal

- Extremely wideband, DC to 40 GHz
- 2.92 mm Male connectors
- Outstanding attenuation flatness
- Excellent VSWR, 1.10:1 typ.



CASE STYLE: FF2607

## Product Overview

The BW-KMx-2W44+ series of precision fixed attenuators achieves extremely wide frequency range with excellent flatness of attenuation. 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 (1.10:1 typ.) and rugged construction make these models ideal solutions for systems requiring precise attenuation across very wide frequency range.

## Key Features

| Feature                               | Advantages   |
|---------------------------------------|--|
| Extremely wideband, DC to 40 GHz      | Ideal for an exceptionally wide variety of applications.   |
| Excellent VSWR, 1.10:1 typ.           | Efficient power utilization with low power reflected back to source.   |
| Outstanding attenuation flatness      | 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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# Precision Fixed Attenuator

## BW-KM6-2W44+

50Ω    2W    6dB    DC to 40 GHz

### Maximum Ratings

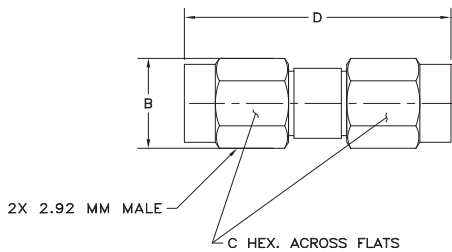
Operating Temperature -55°C to 100°C\*\*

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.

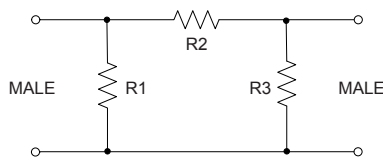
### Outline Drawing



### Outline Dimensions (inch/mm)

| A  | B    | C    | D     | E  | wt       |
|----|------|------|-------|----|----------|
| -- | .36  | .312 | .91   | -- | grams    |
| -- | 9.14 | 7.92 | 23.11 | -- | 6.5 Max. |

### Simplified Electrical Schematic



### Features

- DC to 40 GHz
- precise attenuation
- excellent VSWR, 1.10:1 typ.
- passivated stainless steel connectors
- can interface with SMA, K & 3.5mm connectors

### Applications

- matching
- instrumentation
- test set-ups



Generic photo used for illustration purposes only

CASE STYLE: FF2607

| Connectors  | Model        |
|-------------|--------------|
| 2.92mm Male | BW-KM6-2W44+ |

### +RoHS Compliant

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

### Electrical Specifications at 25°C

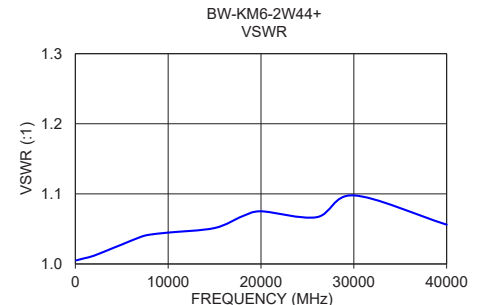
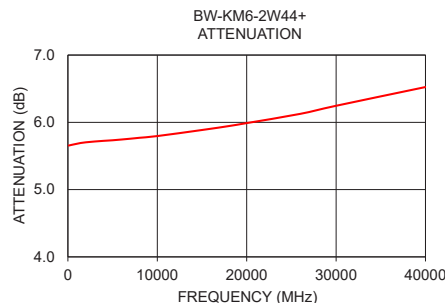
| Parameter                      | Condition (GHz) | Min. | Typ. | Max. | Unit |
|--------------------------------|-----------------|------|------|------|------|
| <b>Frequency Range</b>         |                 | DC   | —    | 40   | GHz  |
| <b>Attenuation<sup>1</sup></b> | DC - 40         | —    | 6    | —    | dB   |
|                                | DC - 26.5       | 5    | —    | 7    |      |
|                                | 26.5 - 40       | 5    | —    | 7    |      |
| <b>VSWR</b>                    | DC - 18         | —    | 1.1  | 1.4  | :1   |
|                                | 18 - 26.5       | —    | 1.1  | 1.5  |      |
|                                | 26.5 - 40       | —    | 1.1  | 1.5  |      |
| <b>Input Power<sup>2</sup></b> | DC - 40         | —    | —    | 2    | W    |

1. At 25°C, accuracy includes frequency and power variations. Temperature coefficient for attenuation: .0004dB/dB/°C typ.

2. Max. power at 25°C ambient, derate linearly to 0.65W at 100°C.

### Typical Performance Data

| Frequency (MHz) | Attenuation (dB) | VSWR (:1) |
|-----------------|------------------|-----------|
| 100             | 5.66             | 1.01      |
| 1000            | 5.68             | 1.01      |
| 2000            | 5.70             | 1.01      |
| 4000            | 5.73             | 1.02      |
| 5000            | 5.73             | 1.03      |
| 7000            | 5.76             | 1.04      |
| 8000            | 5.77             | 1.04      |
| 10000           | 5.80             | 1.04      |
| 15000           | 5.89             | 1.05      |
| 18000           | 5.94             | 1.07      |
| 20000           | 5.99             | 1.08      |
| 26000           | 6.13             | 1.07      |
| 30000           | 6.25             | 1.10      |
| 40000           | 6.52             | 1.06      |



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