



COAXIAL

Fixed Attenuator

BW-W6-0.5W114+

Mini-Circuits

50Ω 0.5 W 6 dB DC to 110 GHz 1.0 mm-Male to 1.0 mm-Female

KEY FEATURES

- Wideband, DC to 110 GHz
- Excellent VSWR, 1.3 typ.
- 0.5 W Power Handling
- 1.0 mm-Male to 1.0 mm-Female Connectors

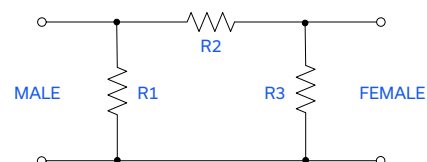


Generic photo used for illustration purposes only

APPLICATIONS

- Optical Communications
- Test & Measurement
- High-Speed Data Systems
- Instrumentation
- Precision Measurements

FUNCTIONAL DIAGRAM



HANDLING INSTRUCTIONS

1.0 mm connectors require specific handling and torque values. See Mini-Circuits Application Note AN-71-001 for detail.

PRODUCT OVERVIEW

The Mini-Circuits catalog model BW-W6-0.5W114+ is a precision fixed 6 dB 0.5 W attenuator. BW-W6-0.5W114+ operates over an extremely wide frequency range with excellent VSWR and supports a broad range of system and testing applications. Precise performance, excellent VSWR and wide bandwidth make this model an ideal solution for systems requiring accurate attenuation across a very wide frequency range.

ELECTRICAL SPECIFICATIONS¹ AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	-	110	GHz
Attenuation	DC-26.5	5.2	5.7	6.8	dB
	26.5-40	5.0	6.0	7.0	
	40-60	4.5	6.3	7.5	
	60-90	4.5	6.9	7.6	
	90-110	4.5	6.6	7.6	
VSWR	DC-26.5	-	1.1	1.4	:1
	26.5-40	-	1.2	1.6	
	40-60	-	1.2	1.7	
	60-90	-	1.5	2.6	
	90-110	-	1.5	2.6	

1. Bi-directional RF1 & RF2 Ports can be interchanged. See S-Parameters for actual performance.

ABSOLUTE MAXIMUM RATINGS²

Parameter	Ratings
Operating Case Temperature	-55 °C to +100 °C
Storage Temperature	-55 °C to +100 °C
Input Power (RF1 Port) ³	0.5 W
Input Power (RF2 Port) ⁴	0.5 W

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

3. & 4. At +25 °C derate linearly to 0.05 W at +100 °C.

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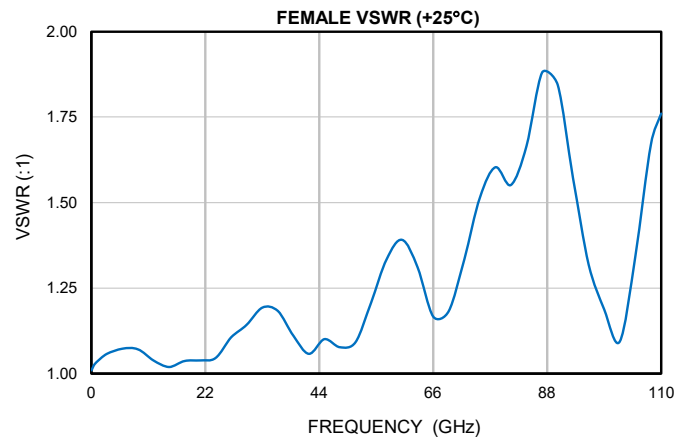
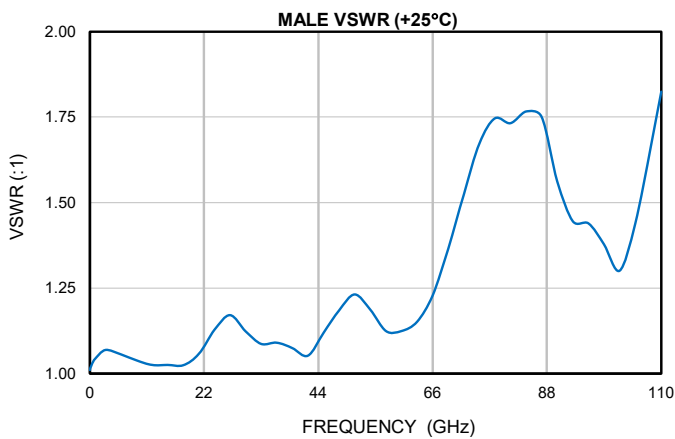
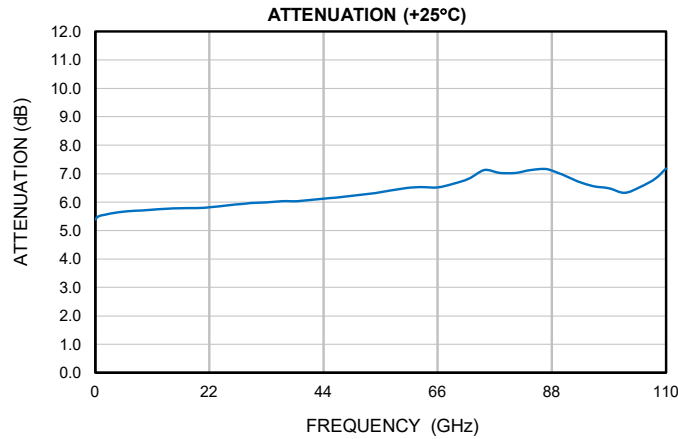
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TYPICAL PERFORMANCE GRAPHS





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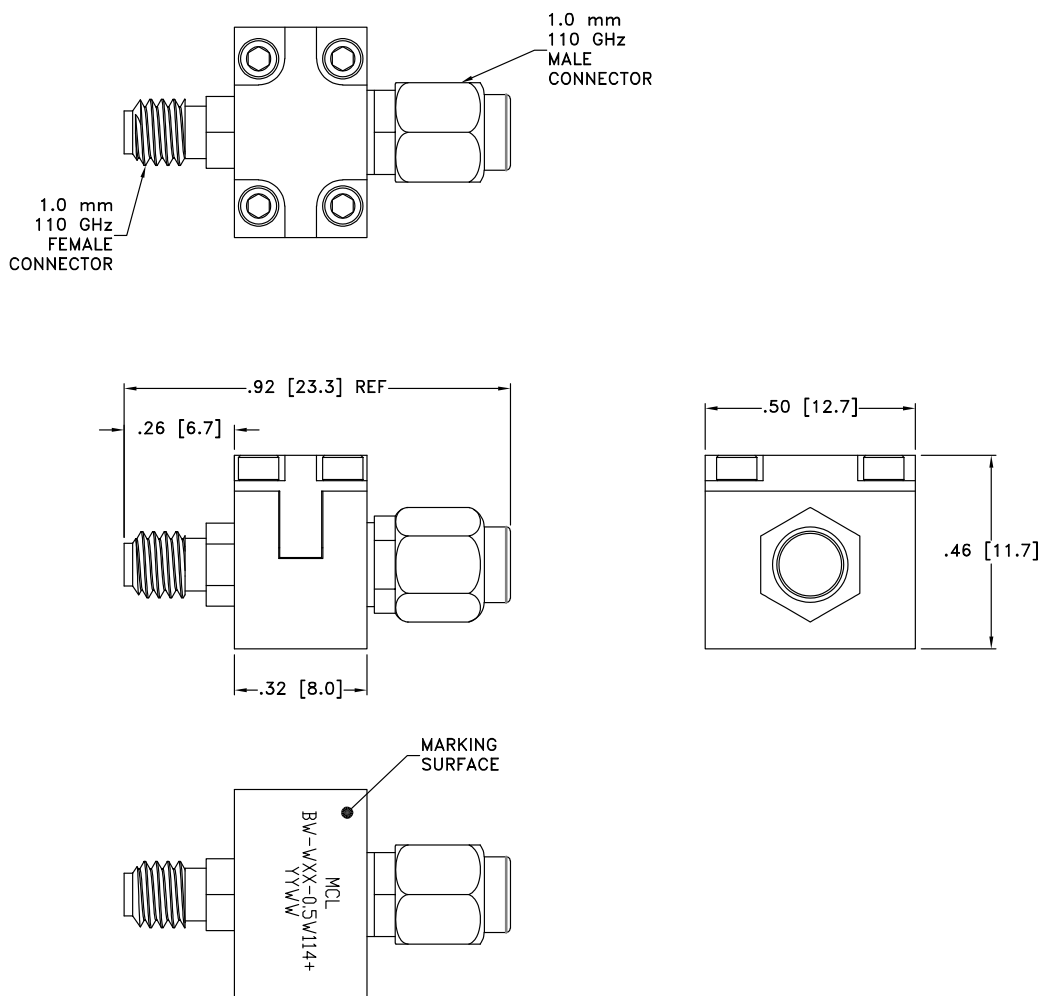
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COAXIAL CONNECTIONS

Description	RF1 PORT	RF2 PORT
Connector Type	1.0 mm-Male	1.0 mm-Female
Orientation	Straight	Straight

CASE STYLE DRAWING



Weight: 7.0 grams MAX

Dimensions are in inches [mm]. Tolerances: 2 PL±.03[.76]; 3 PL±.015[.38] inches[mm]

PRODUCT MARKING*: BW-W6-0.5W114+

*Marking may contain other features or characters for internal lot control.





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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

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Performance Data & Graphs	Data
	Graphs
	S-Parameter (S2P Files) Data Set (.zip file)
Case Style	FF3501
RoHS Status	Compliant
Environmental Ratings	ENV142

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/terms/viewterm.html

