



COAXIAL

# Fixed Attenuator

## BW-W20-0.5W114+

50Ω 0.5 W 20 dB DC to 110 GHz 1.0 mm Male to Female

### KEY FEATURES

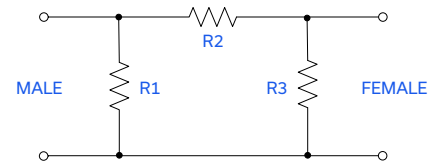
- Wideband, DC to 110 GHz
- 1.0 mm Male to Female Connectors
- Excellent VSWR, 1.3 typ.
- 0.5 W Power Handling



### 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-W20-0.5W114+ is a precision fixed 20 dB 0.5 W attenuator. BW-W20-0.5W114+ 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 SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		DC	-	110	GHz
Attenuation	DC-26.5	18.5	20.6	21.5	dB
	26.5-40	18.0	20.5	22.0	
	40-60	18.0	20.4	22.0	
	60-90	17.5	20.6	22.5	
	90-110	17.0	19.6	23.0	
VSWR	DC-26.5	-	1.1	1.4	:1
	26.5-40	-	1.2	1.6	
	40-60	-	1.1	1.7	
	60-90	-	1.5	2.1	
	90-110	-	1.7	2.7	

### ABSOLUTE MAXIMUM RATINGS<sup>1</sup>

Parameter	Ratings
Operating Case Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C

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





COAXIAL

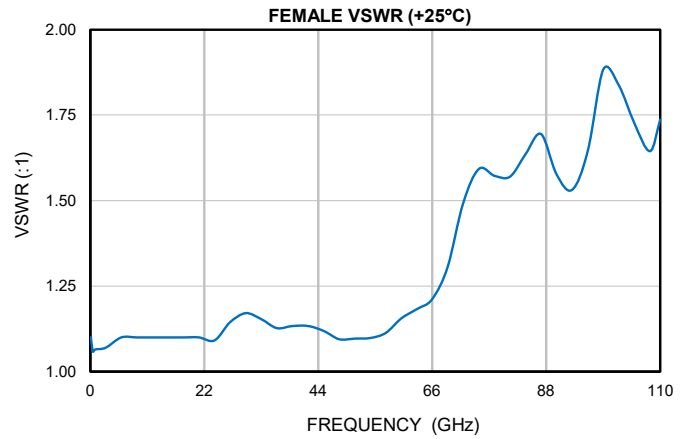
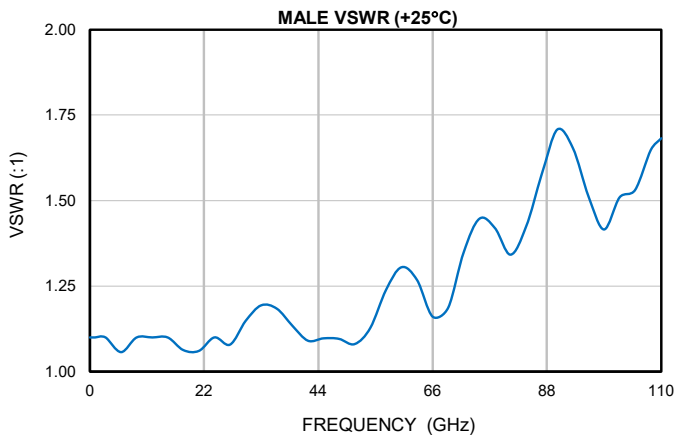
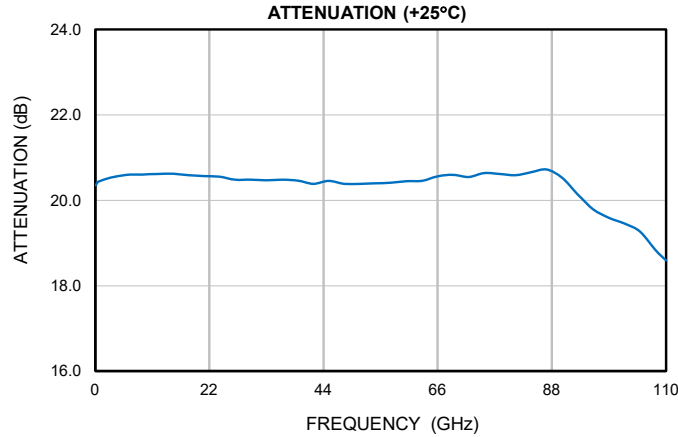
# Fixed Attenuator

## BW-W20-0.5W114+

Mini-Circuits

50Ω 0.5 W 20 dB DC to 110 GHz 1.0 mm Male to Female

### TYPICAL PERFORMANCE GRAPHS





COAXIAL

# Fixed Attenuator

## BW-W20-0.5W114+

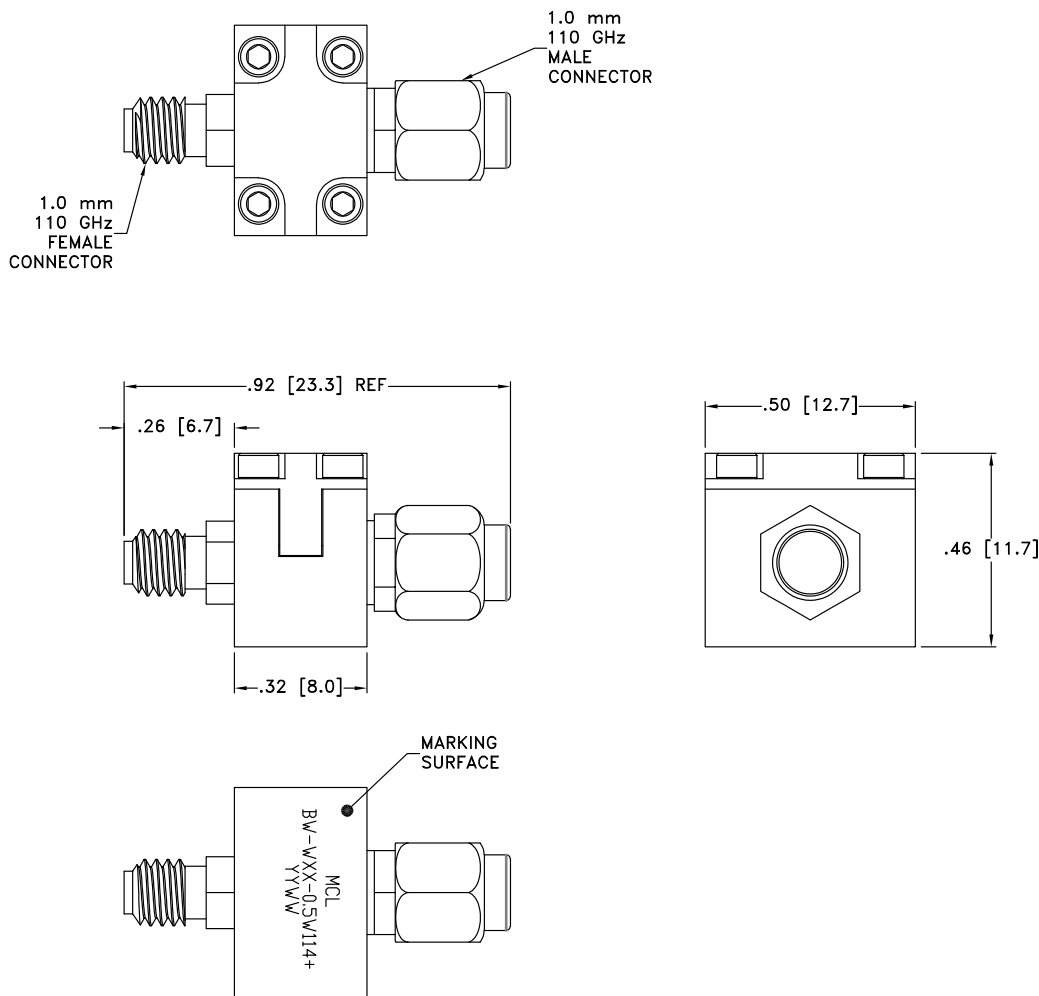
Mini-Circuits

50Ω 0.5 W 20 dB DC to 110 GHz 1.0 mm Male to Female

### 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-W20-0.5W114+

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





COAXIAL

# Fixed Attenuator

## BW-W20-0.5W114+

50Ω 0.5 W 20 dB DC to 110 GHz 1.0 mm Male to Female

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

<b>Performance Data &amp; Graphs</b>	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
<b>Case Style</b>	FF3501
<b>RoHS Status</b>	Compliant
<b>Environmental Ratings</b>	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](http://www.minicircuits.com/terms/viewterm.html)

