



# Adapter

### KEY FEATURES

- Full E-band frequency band, 60-90 GHz
- Low Insertion Loss, 0.6 dB Typ.
- Excellent VSWR, 1.2:1 Typ.
- Compact right-angle design
- Precision UG387/U anti-cocking waveguide flange
- 1.0 mm-Female connector



Generic photo used for illustration purposes only

### HANDLING INSTRUCTIONS

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

### PRODUCT OVERVIEW

Mini-Circuits' WR12-10R+ is a waveguide to coaxial adapter operating from 60 to 90 GHz. This product features a WR12 waveguide interface with a precision standard UG387/U anti-cocking flange to a 1.0 mm-Female coaxial connector. The WR12-10R+ features aluminum alloy construction and a gold-plated finish to ensure repeatable RF performance. This right-angle adapter has applications in R&D, over-the-air (OTA) mmWave test laboratories as well as in E-Band communication and SATCOM systems. Mounting screws are included with product purchase.

### ELECTRICAL SPECIFICATIONS AT +25°C

Parameter	Frequency (GHz)	Min.	Typ.	Max.	Units
Frequency Range		60		90	GHz
Insertion Loss	60-70		0.6	1.0	dB
	70-80		0.6	1.0	
	80-90		0.6	1.0	
VSWR	60-70		1.2	1.5	:1
	70-80		1.2	1.5	
	80-90		1.1	1.5	

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

Operating Case Temperature	+10°C to +40°C
Storage Temperature	-55°C to +100°C

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



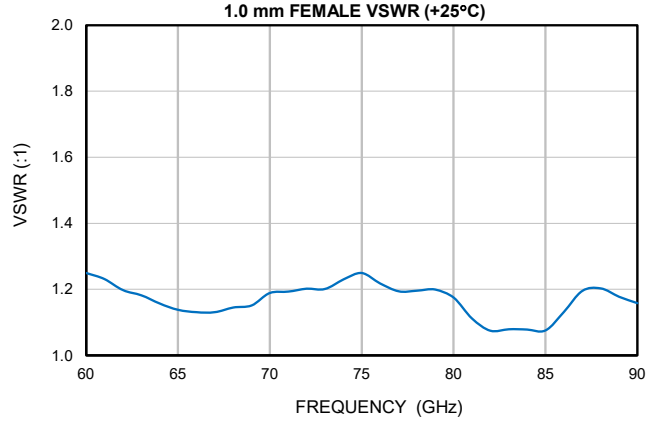
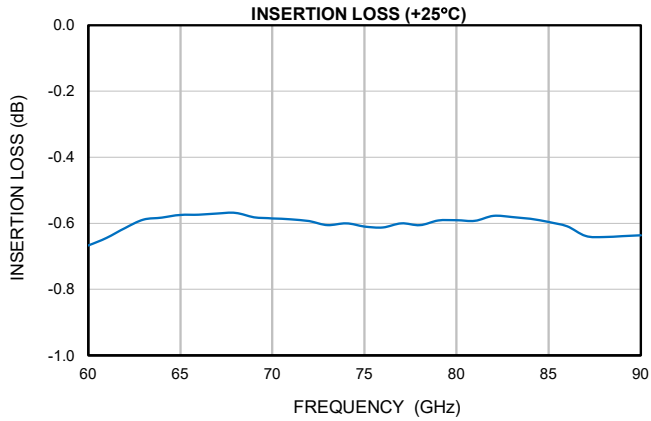
WAVEGUIDE/COAXIAL

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## WR12-10R+

50Ω 60 to 90 GHz Right-Angle 1.0 mm-Female to WR12 UG387/U Flange

### TYPICAL PERFORMANCE GRAPHS

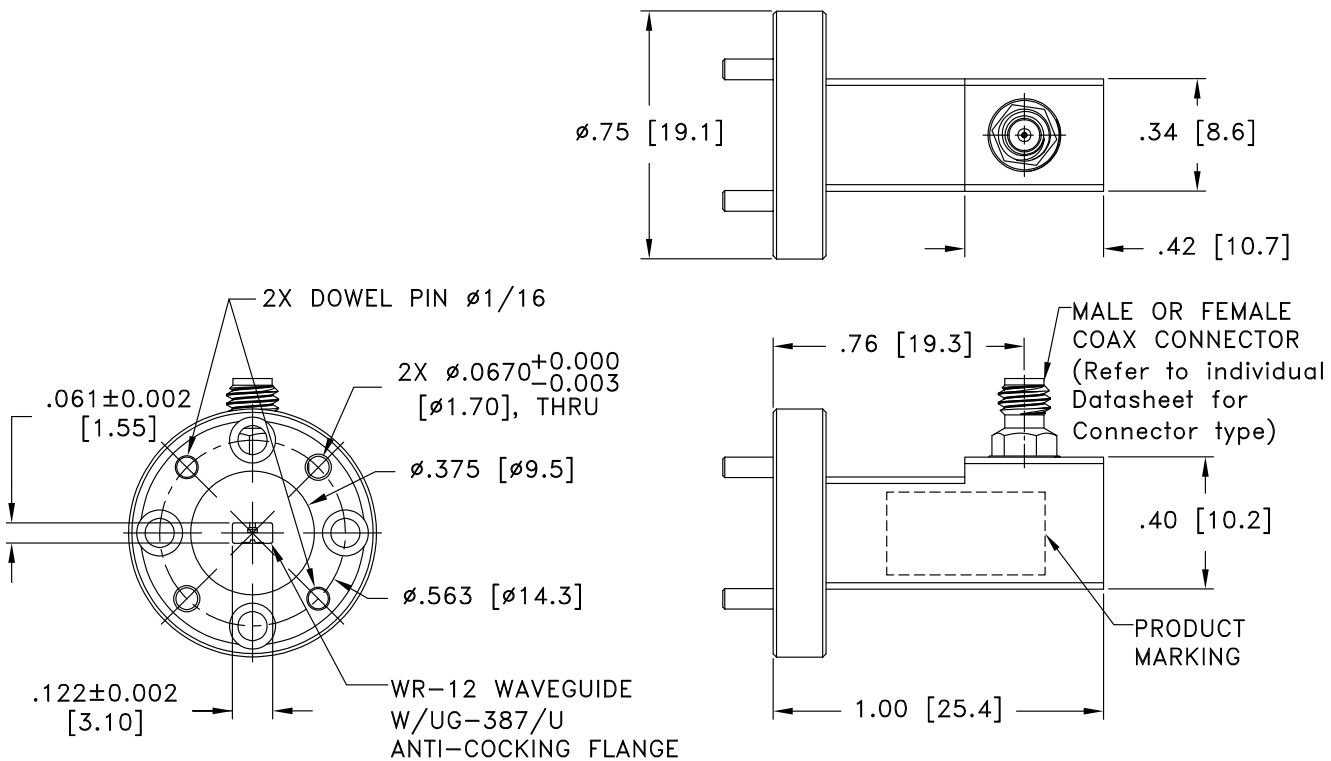




### CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	WR12 UG387/U Flange	1.0 mm Female
Orientation	Straight	Right-Angle

### CASE STYLE DRAWING



Weight: 11 grams

Dimensions are in inches [mm]. Tolerances: 2 Pl.  $\pm .03$ ; 3 Pl.  $\pm .015$  Inches

### PRODUCT MARKING\*: WR12-10R+

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



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## WR12-10R+

Mini-Circuits

50Ω 60 to 90 GHz Right-Angle 1.0 mm-Female to WR12 UG387/U Flange

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD [CLICK HERE](#)

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	UW3676
RoHS Status	Compliant
Environmental Ratings	ENV145

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-Circuits' 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 <https://www.minicircuits.com/terms/viewterm.html>

