

**KEY FEATURES**

- Full E-band frequency band, 60-90 GHz
- Low Insertion Loss, 0.5 dB Typ.
- Excellent VSWR, 1.2:1 Typ.
- 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-coax adapter operating from 60 to 90 GHz (E-band). This product features a WR12 waveguide interface with a precision standard UG387/U anti-cocking flange to 1.0 mm-Female coaxial connector. The WR12-10+ features aluminum alloy construction and a gold-plated finish to ensure repeatable RF performance. This adapter has applications in R&D, production, over-the-air (OTA) mmWave test laboratories as well as in 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	-	0.5	1.2	dB
	70-80	-	0.5	1.2	
	80-90	-	0.6	1.2	
VSWR	60-70	-	1.1	1.7	:1
	70-80	-	1.2	1.7	
	80-90	-	1.3	1.7	

ABSOLUTE MAXIMUM RATINGS¹

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.



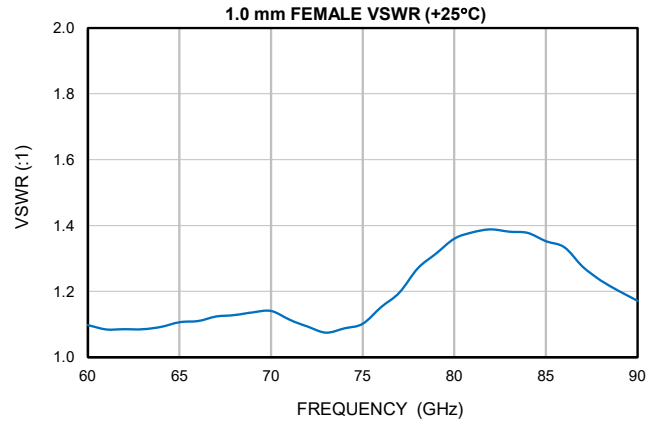
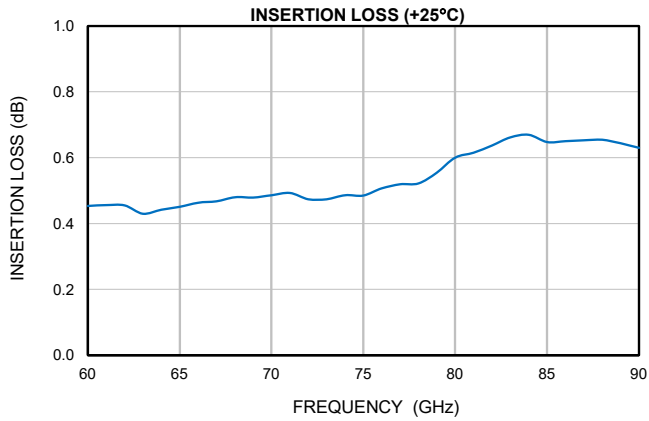
WAVEGUIDE TO COAX

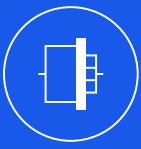
Adapter

WR12-10+

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

TYPICAL PERFORMANCE GRAPHS



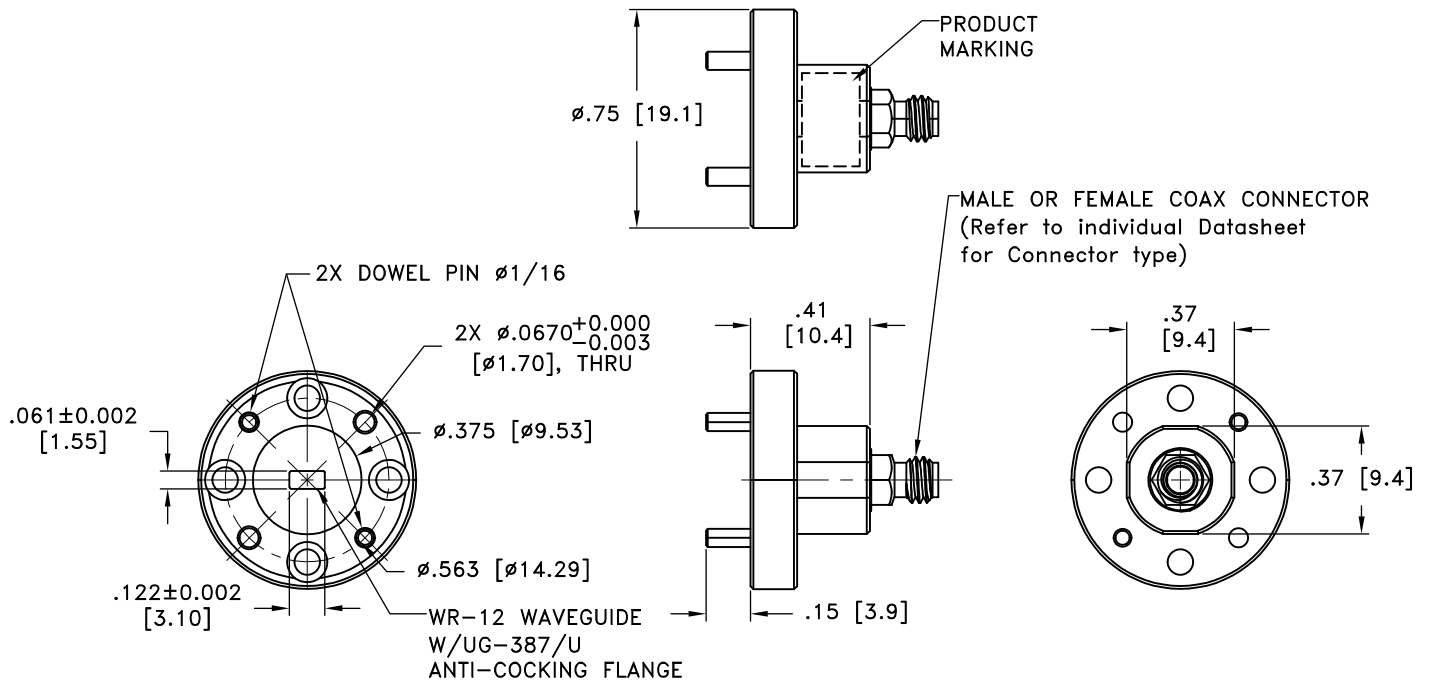


Adapter

CONNECTOR SPECIFICATIONS

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

CASE STYLE DRAWING



Weight: 5.7 grams

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

PRODUCT MARKING*: WR12-10+

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



WAVEGUIDE TO COAX

Adapter

WR12-10+

Mini-Circuits

50Ω 60 to 90 GHz 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	UW3765-1
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 www.minicircuits.com/terms/viewterm.html

