WAVEGUIDE TO COAX

Adapter

WR10-10+

50Ω 75 to 110 GHz 1.0 mm Female to WR10 UG387/U Flange

KEY FEATURES

- Full W-band frequency band, 75-110 GHz
- Low Insertion Loss, 0.6 dB Typ.
- Excellent VSWR, 1.3:1 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' WR10-10+ is a waveguide-to-coax adapter operating from 75 to 110 GHz (W-band). This product features a WR10 waveguide interface with a precision standard UG387/U anti-cocking flange-to-1.0 mm Female coaxial connector. The WR10-10+ 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		75	-	110	GHz
Insertion Loss	75-90	-	0.5	1.5	dB
	90-100	-	0.6	1.5	
	100-110	-	0.7	1.5	
VSWR	75-90	-	1.3	2.0	:1
	90-100	-	1.3	2.0	
	100-110	-	1.7	2.0	

ABSOLUTE MAXIMUM RATINGS[1]

Operating Case Temperature	+10° C to +40° C
Storage Temperature	-40° C to +85° C

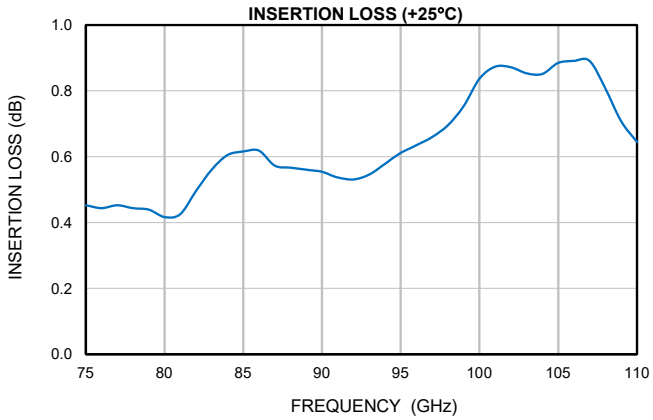
1. Permanent damage may occur if any of these limits are exceeded.

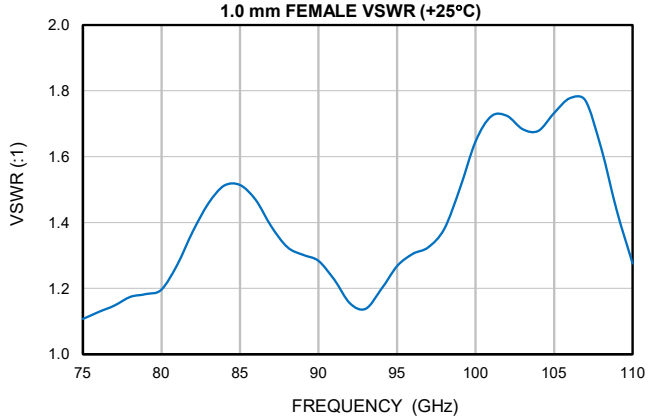
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TYPICAL PERFORMANCE GRAPHS





Adapter

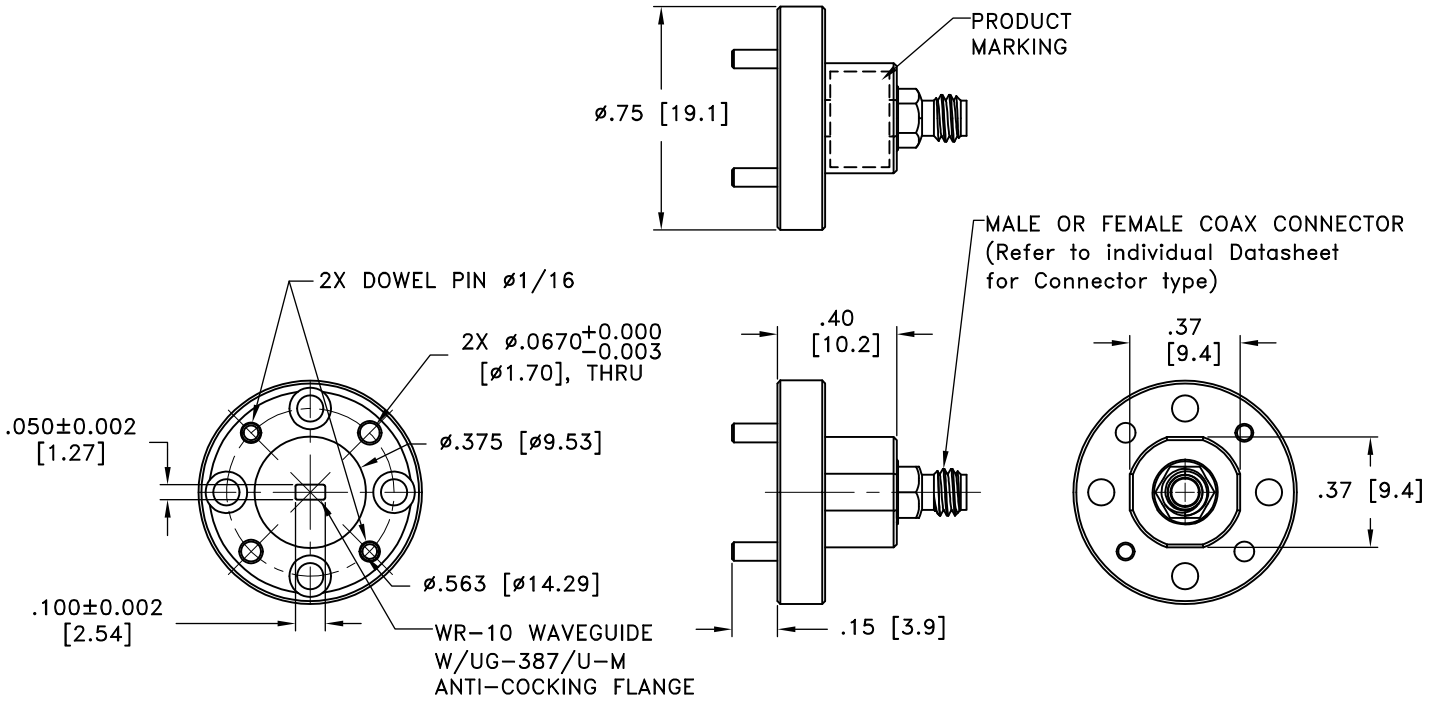
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CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	WR10 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.±.03; 3 Pl. ±.015

PRODUCT MARKING*: WR10-10+

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

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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
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

Waveguide WR10 UG387/U to 1.0mm-F

WR10-10+

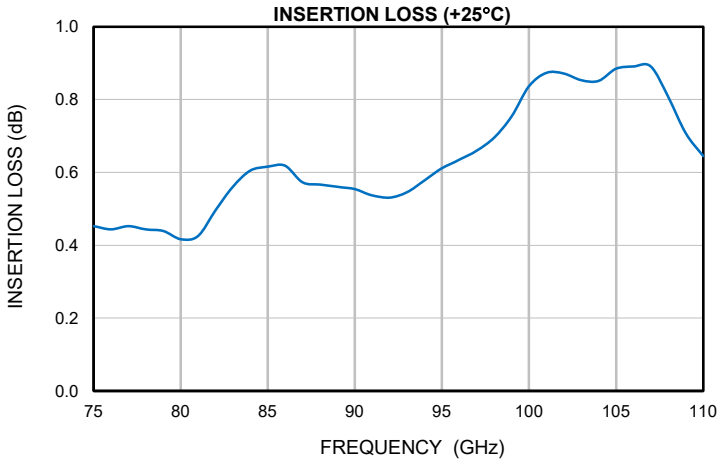
Typical Performance Data (+25°C)

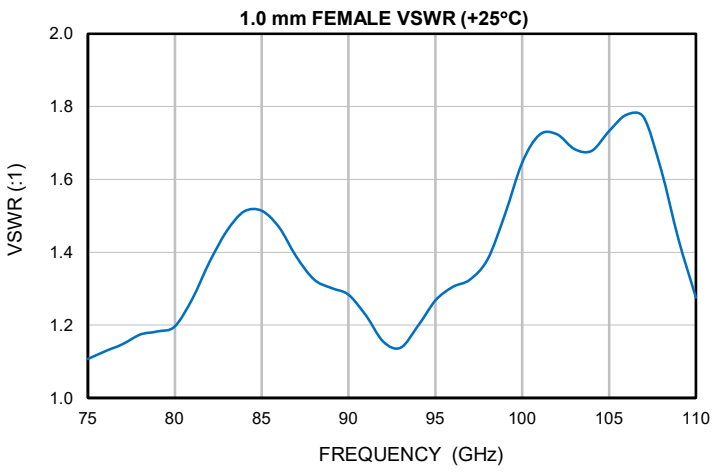
FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR
(GHz)	(dB)	(:1)
75	0.45	1.11
76	0.44	1.13
77	0.45	1.15
78	0.44	1.17
79	0.44	1.18
80	0.42	1.20
81	0.43	1.27
82	0.50	1.37
83	0.56	1.46
84	0.61	1.51
85	0.62	1.51
86	0.62	1.47
87	0.57	1.39
88	0.57	1.33
89	0.56	1.30
90	0.55	1.28
91	0.54	1.23
92	0.53	1.16
93	0.55	1.14
94	0.58	1.20
95	0.61	1.27
96	0.63	1.31
97	0.66	1.32
98	0.70	1.38
99	0.75	1.50
100	0.84	1.65
101	0.87	1.72
102	0.87	1.72
103	0.85	1.68
104	0.85	1.68
105	0.88	1.73
106	0.89	1.78
107	0.89	1.77
108	0.81	1.62
109	0.71	1.43
110	0.64	1.28

Waveguide WR10 UG387/U to 1.0mm-F

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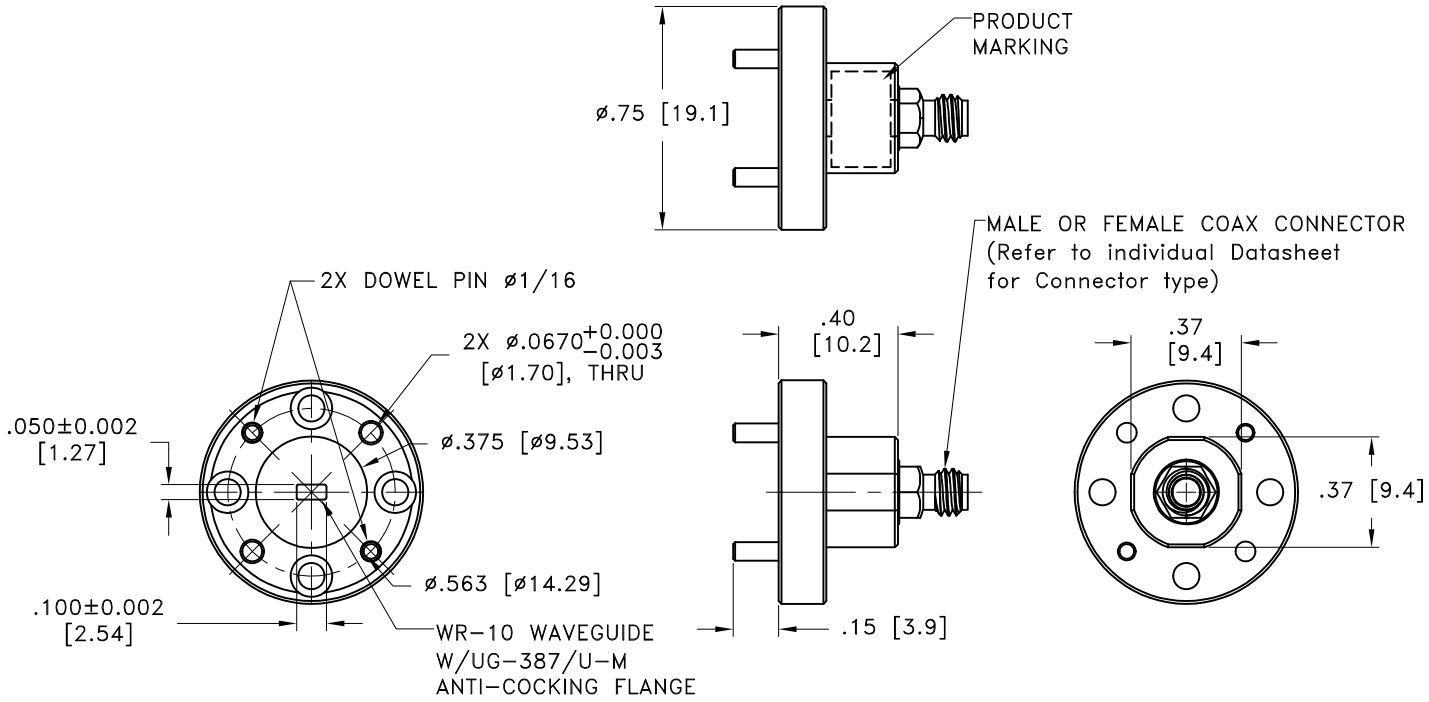
Typical Performance Curves





Case Style UW

Outline Dimensions UW3765



Weight: 5.7 grams

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

Notes:

1. Case material: Aluminum alloy.
2. Case Finish: Gold plated.

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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com
RF/IF MICROWAVE COMPONENTS

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Environmental Specifications ENV145

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	10° to 40° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet

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