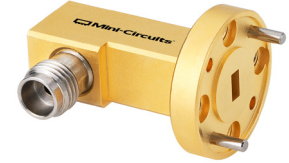


**KEY FEATURES**

- V-band frequency band, 50-70 GHz
- Low Insertion Loss, 0.4 dB Typ.
- Excellent VSWR, 1.1:1 Typ.
- Compact right-angle design
- Precision UG385/U anti-cocking waveguide flange
- 1.85 mm-Female connector



Generic photo used for illustration purposes only

**PRODUCT OVERVIEW**

Mini-Circuits' WR15-185R+ is a waveguide to coaxial adapter operating from 50 to 70 GHz. This product features a WR15 waveguide interface with a precision standard UG385/U anti-cocking flange to 1.85 mm-Female coaxial connector. The WR15-185R+ 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 V-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		50		70	GHz
Insertion Loss	50-60		0.4	1.0	dB
	60-70		0.4	1.0	
VSWR	50-60		1.1	1.6	:1
	60-70		1.1	1.6	

**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.



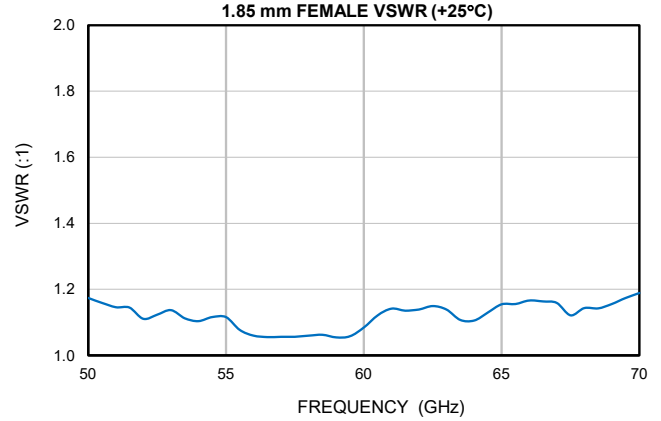
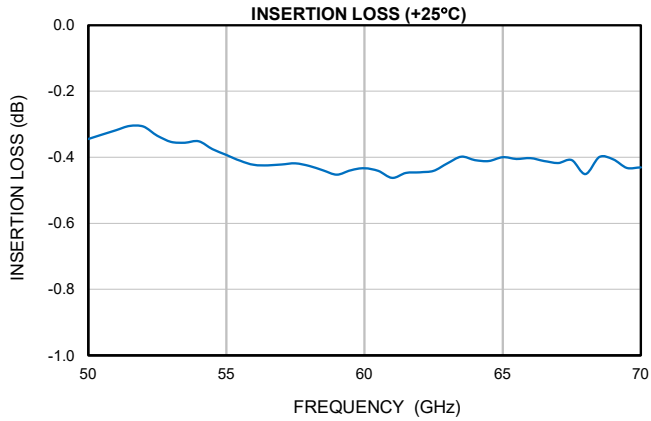
WAVEGUIDE/COAXIAL

# Adapter

## WR15-185R+

50Ω 50 to 70 GHz Right-Angle 1.85 mm-Female to WR15 UG385/U Flange

### TYPICAL PERFORMANCE GRAPHS



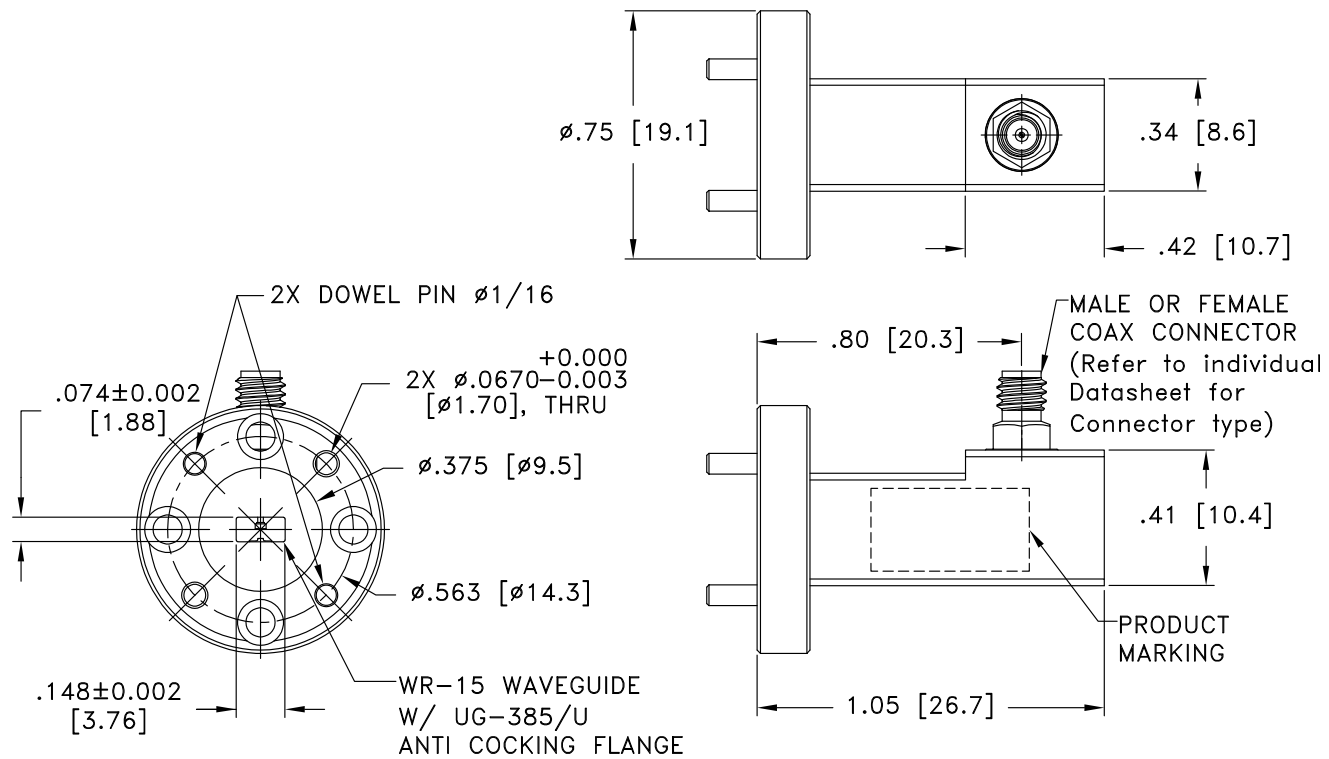


# Adapter

### CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	WR15 UG385/U Flange	1.85 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\*: WR15-185R+

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



WAVEGUIDE/COAXIAL

# Adapter

## WR15-185R+

Mini-Circuits

50Ω 50 to 70 GHz Right-Angle 1.85 mm-Female to WR15 UG385/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	UW3675
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](http://www.minicircuits.com/terms/viewterm.html)



# Waveguide WR15 UG385/U to 1.85mm-F

# WR15-185R+

Typical Performance Data (+25 °C)

FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR
(GHz)	(dB)	(:1)
50	-0.34	1.17
51	-0.33	1.16
51	-0.32	1.15
52	-0.30	1.14
52	-0.31	1.11
53	-0.33	1.12
53	-0.35	1.14
54	-0.36	1.11
54	-0.35	1.10
55	-0.38	1.12
55	-0.39	1.12
56	-0.41	1.08
56	-0.42	1.06
57	-0.42	1.06
57	-0.42	1.06
58	-0.42	1.06
58	-0.43	1.06
59	-0.44	1.06
59	-0.45	1.05
60	-0.44	1.06
60	-0.43	1.08
61	-0.44	1.12
61	-0.46	1.14
62	-0.45	1.14
62	-0.45	1.14
63	-0.44	1.15
63	-0.42	1.14
64	-0.40	1.11
64	-0.41	1.11
65	-0.41	1.13
65	-0.40	1.16
66	-0.41	1.16
66	-0.40	1.17
67	-0.41	1.16
67	-0.42	1.16
68	-0.41	1.12
68	-0.45	1.14
69	-0.40	1.14
69	-0.41	1.16
70	-0.43	1.17
70	-0.43	1.19



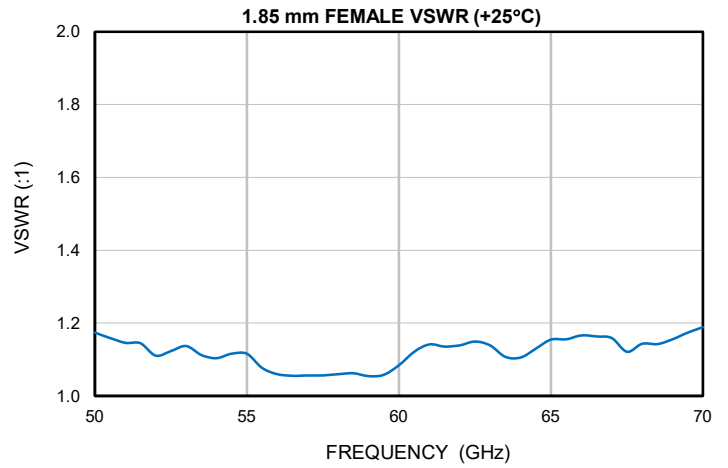
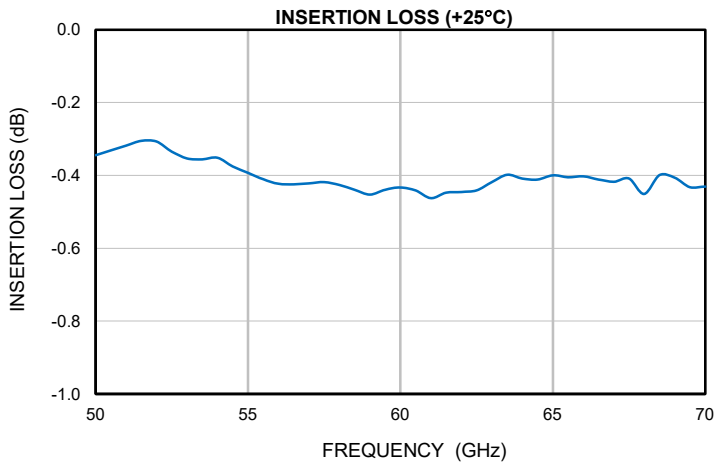
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site  
 The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)



IF/RF MICROWAVE COMPONENTS

REV. OR  
 WR15-185R+  
 11/21/2024  
 Page 1 of 1

## Typical Performance Curves

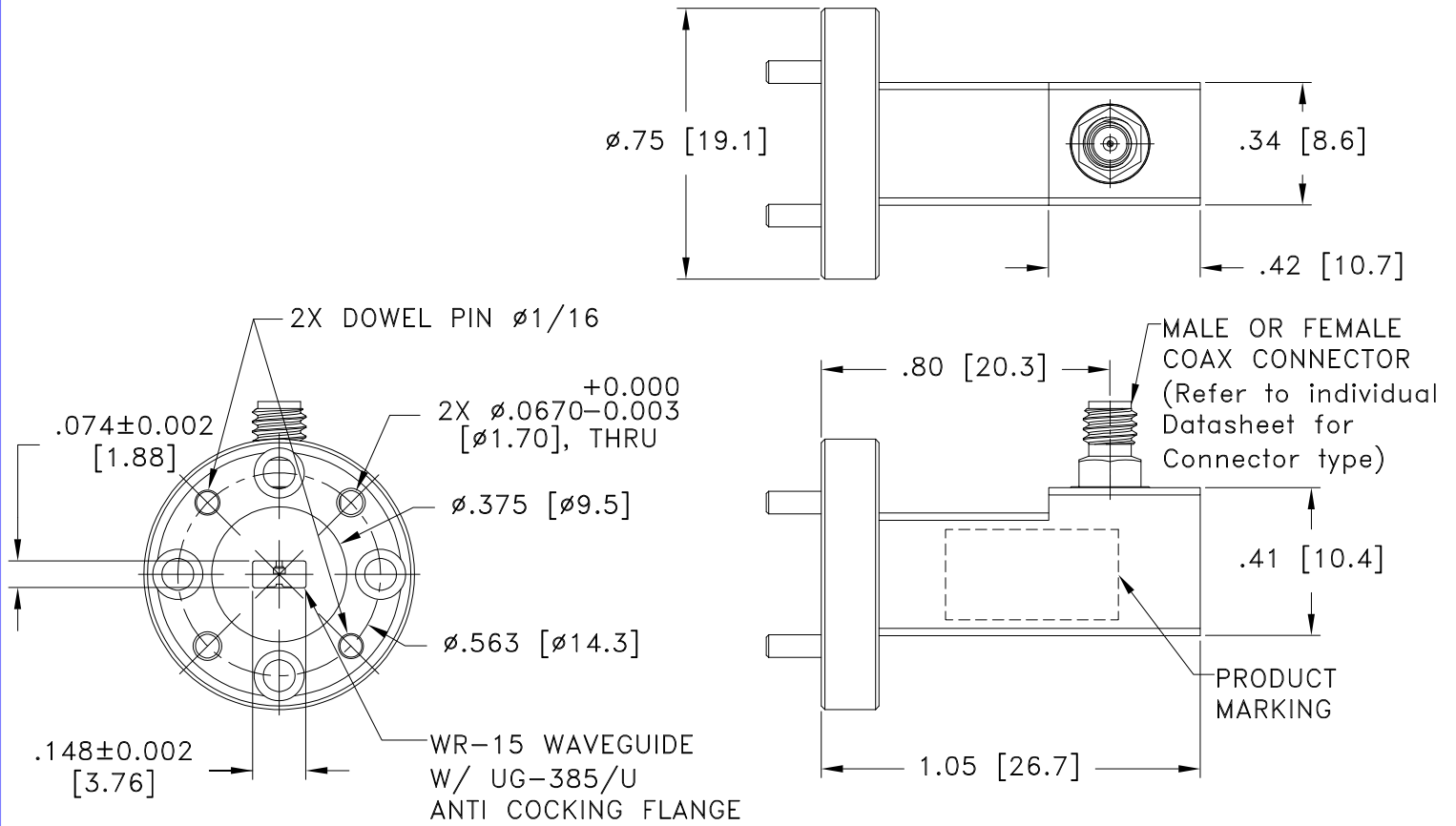


# Case Style

# UW

## Outline Dimensions

## UW3675



Weight: 11 grams

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

Notes:

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

**Mini-Circuits®**  
ISO 9001 ISO 14001 CERTIFIED

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The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

RF/IF MICROWAVE COMPONENTS



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