



KEY FEATURES

- Full V-band frequency band, 50-70 GHz
- Low Insertion Loss, 0.1 dB Typ.
- Excellent VSWR, 1.2:1 Typ.
- Compact design
- Precision UG385/U anti-cocking waveguide flange
- 1.85 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' WR15-185+ is a waveguide-to-coax adapter operating from 50 to 70 GHz (V-band). This product features a WR15 waveguide interface with a precision standard UG385/U anti-cocking flange-to-1.85 mm-Female coaxial connector. The WR15-185+ 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 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	-	0.1	1.0	dB
	60-70	-	0.2	1.0	
VSWR	50-60	-	1.2	1.6	:1
	60-70	-	1.2	1.6	

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

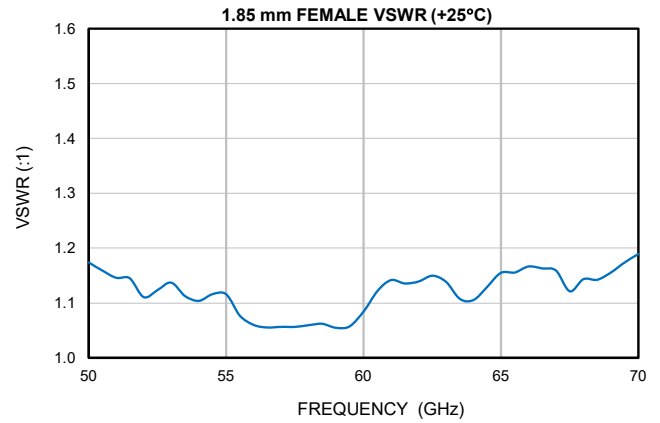
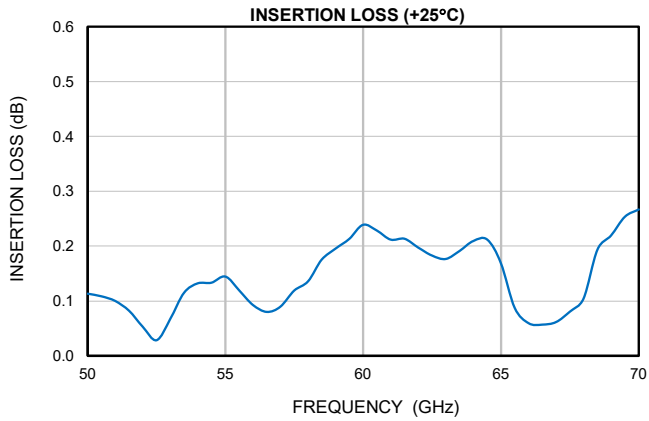
Adapter

WR15-185+

Mini-Circuits

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

TYPICAL PERFORMANCE GRAPHS





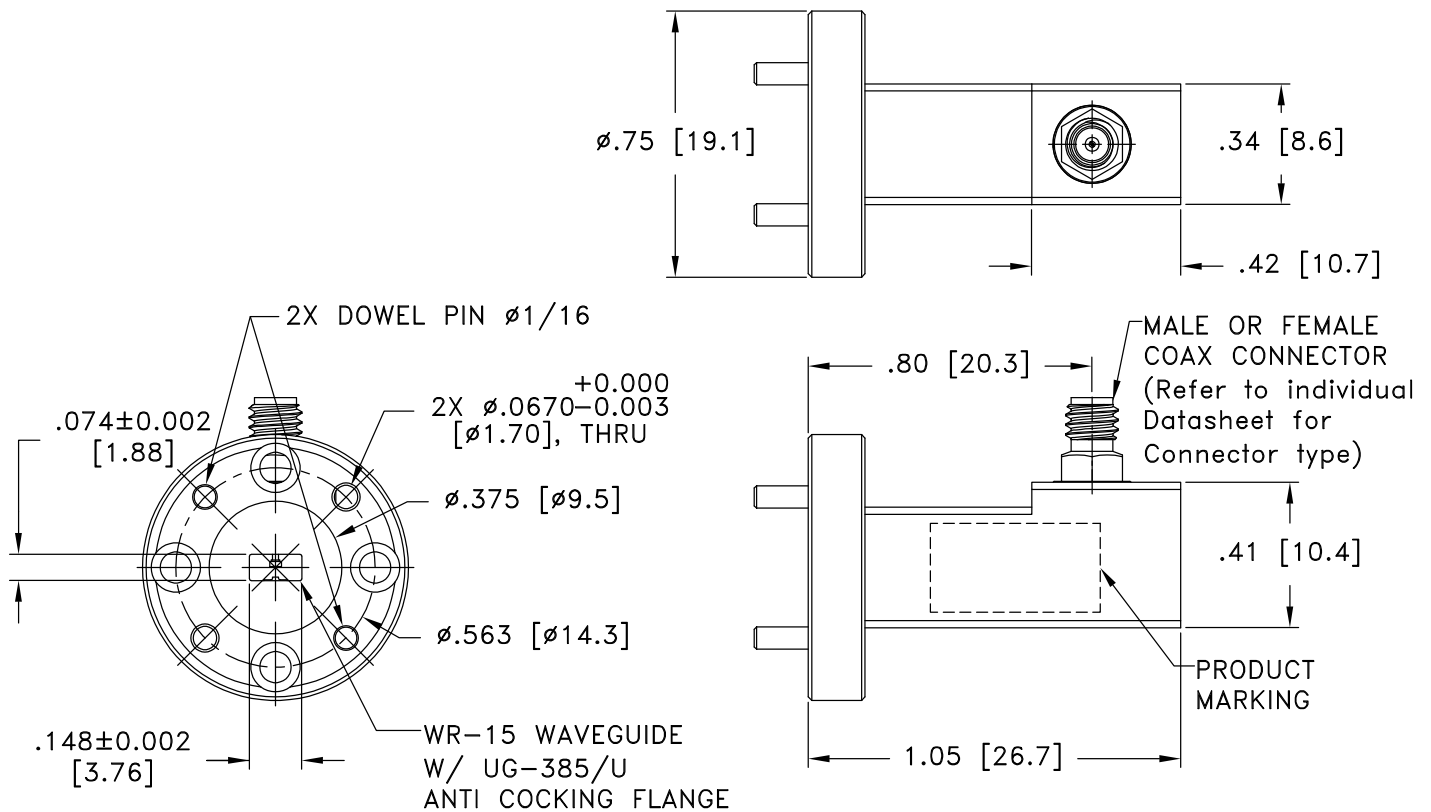
Adapter

WR15-185+

CONNECTOR SPECIFICATIONS

Description	Connector 1	Connector 2
Connector Type	WR15 UG385/U Flange	1.85 mm Female
Orientation	Straight	Straight

CASE STYLE DRAWING



Weight: 11 grams

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

PRODUCT MARKING*: WR15-185+

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



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WAVEGUIDE TO COAX

Adapter

WR15-185+

50Ω 50 to 70 GHz 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

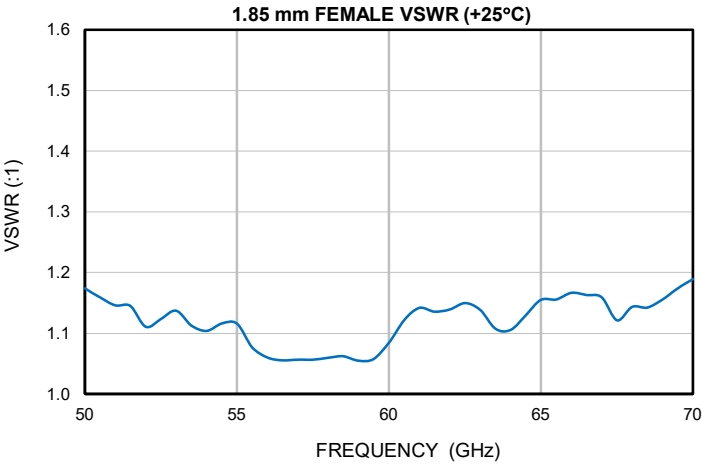
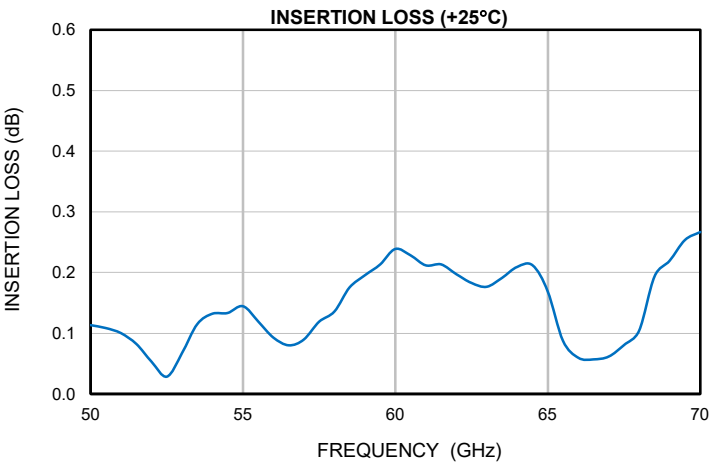
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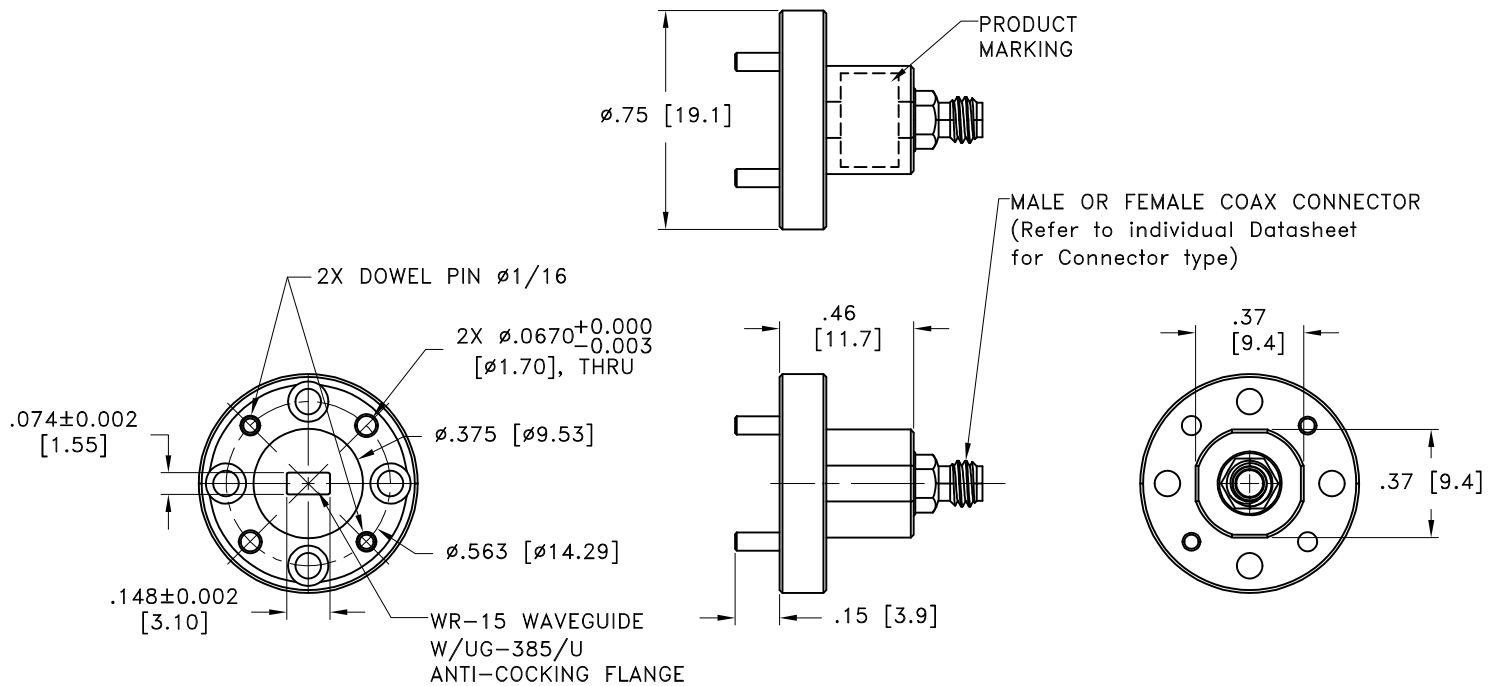
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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 WR15 UG385/U to 1.85mm-F**WR15-185+***Typical Performance Data (+25°C)*

FREQ.	INSERTION LOSS	1.0mm-FEMALE VSWR
(GHz)	(dB)	(:1)
50.0	-0.11	1.17
50.5	-0.11	1.16
51.0	-0.10	1.15
51.5	-0.08	1.14
52.0	-0.05	1.11
52.5	-0.03	1.12
53.0	-0.07	1.14
53.5	-0.12	1.11
54.0	-0.13	1.10
54.5	-0.13	1.12
55.0	-0.14	1.12
55.5	-0.12	1.08
56.0	-0.09	1.06
56.5	-0.08	1.06
57.0	-0.09	1.06
57.5	-0.12	1.06
58.0	-0.14	1.06
58.5	-0.18	1.06
59.0	-0.20	1.05
59.5	-0.21	1.06
60.0	-0.24	1.08
60.5	-0.23	1.12
61.0	-0.21	1.14
61.5	-0.21	1.14
62.0	-0.20	1.14
62.5	-0.18	1.15
63.0	-0.18	1.14
63.5	-0.19	1.11
64.0	-0.21	1.11
64.5	-0.21	1.13
65.0	-0.17	1.16
65.5	-0.09	1.16
66.0	-0.06	1.17
66.5	-0.06	1.16
67.0	-0.06	1.16
67.5	-0.08	1.12
68.0	-0.10	1.14
68.5	-0.19	1.14
69.0	-0.22	1.16
69.5	-0.25	1.17
70.0	-0.27	1.19





Weight: 8.5 grams

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

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



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