



## 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 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 TO COAX

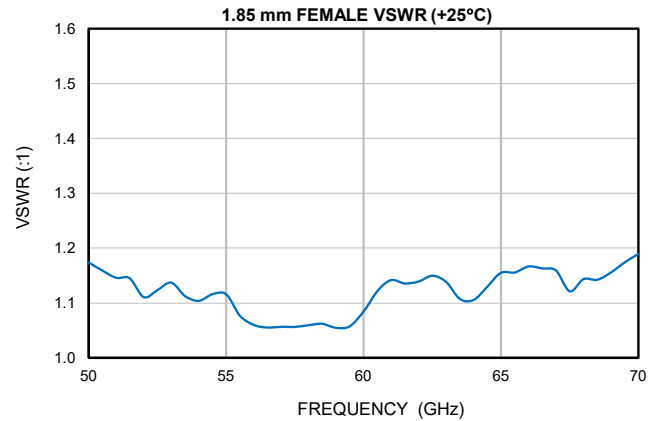
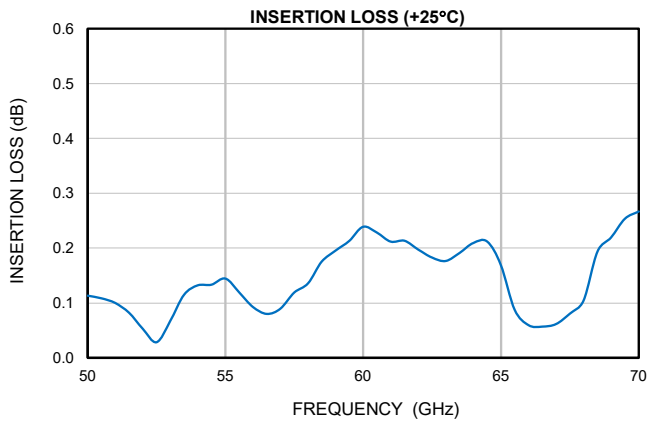
# Adapter

**WR15-185+**

Mini-Circuits

50 $\Omega$  50 to 70 GHz 1.85 mm Female to WR15 UG385/U Flange

## TYPICAL PERFORMANCE GRAPHS





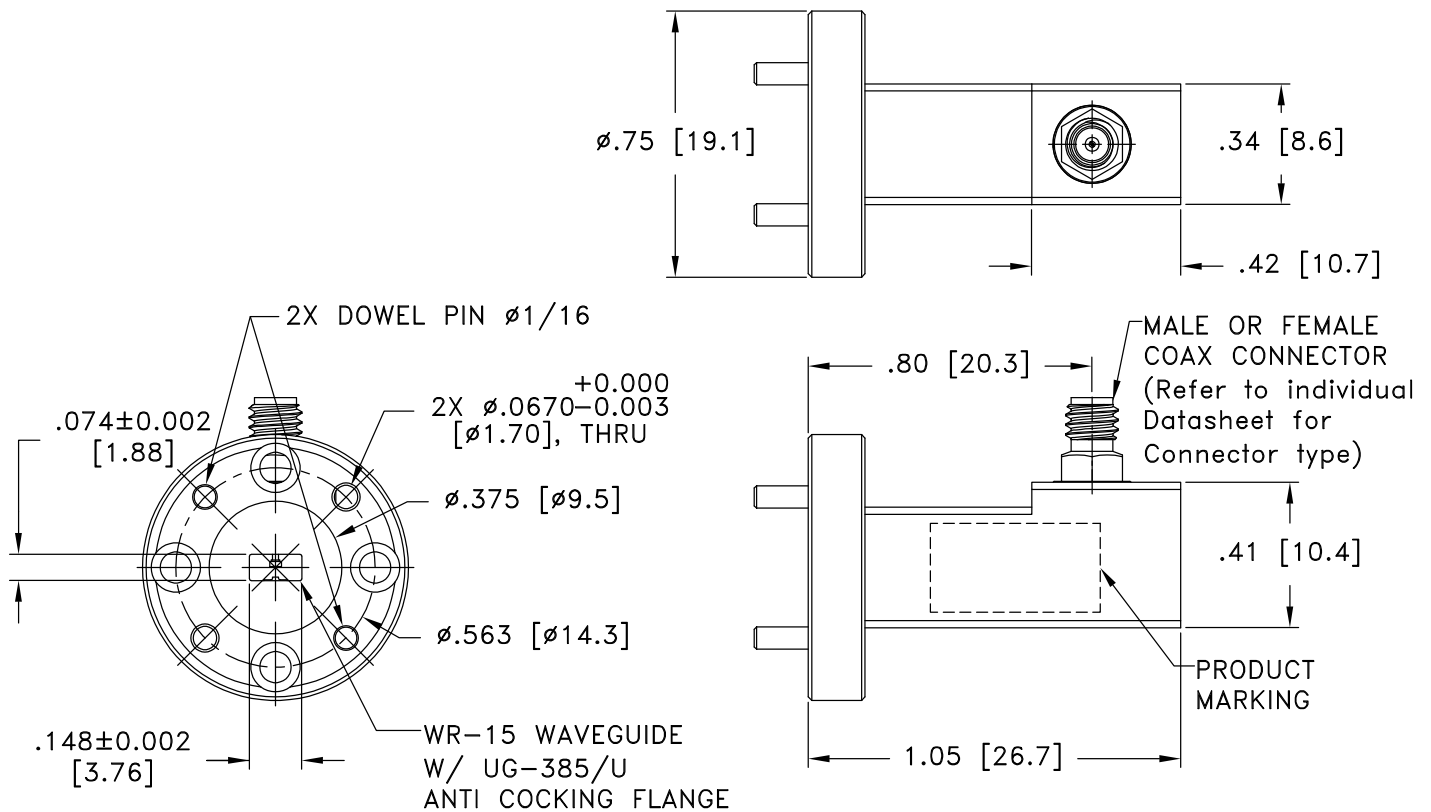
## Adapter

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.



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

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|                           |                                              |
|---------------------------|----------------------------------------------|
| Performance Data & Graphs | Data                                         |
|                           | Graphs                                       |
|                           | S-Parameter (S2P Files) Data Set (.zip file) |
| Case Style                | UW3675                                       |
| RoHS Status               | Compliant                                    |
| Environmental Ratings     | ENV145                                       |

## NOTES

- 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](http://www.minicircuits.com/terms/viewterm.html)

