

## WR-28 Uni-Guide™ Waveguide Connector, Ø12 Mil Pin, 0.48" Mounting

### Description:

**Model SUF-2812-480-S1** is a SAGE Millimeter trademarked **Uni-Guide™**, **patent pending** universal WR-28 waveguide connector to providing a standard waveguide interface from the standard coaxial glass bead pin to cover the frequency range of 26.5 to 40 GHz. The connector offers an efficient standard waveguide interface without any mechanical modifications. This waveguide connector is interchangeable with standard two-hole 2.92 mm (K) or 2.4 mm coax connectors with a mounting hole separation of 0.48" and a 12 mil diameter pin. This waveguide connector is not only designed for SAGE Millimeter's standard products, but also for many industrial standard microwave and millimeterwave products. Like the coax connector offering a coaxial RF interface, this waveguide connector provides a direct waveguide RF interface. Other waveguide connectors with different glass bead pin sizes, such as 9, 15, 20 and 50 mils, different mounting hole separations, various mechanical designs and other frequency bands in the frequency range of 8.2 to 110 GHz are offered under different model numbers.



### Features:

- Full Waveguide Band Operation
- Low Insertion Loss and High Return Loss
- Interchangeable with Correspondent Coax Connector
- Field Replaceable
- Hermetical Package Preservation

### Applications:

- MW Components & Subsystems
- In-line Waveguide Configuration
- 90 Degree In-Out Port Orientation
- Inventory Minimization
- Product Cycle Time Elimination

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	26.5 GHz		40.0 GHz
Insertion Loss		0.5 dB	
Return Loss		20 dB	
Power Handling			100 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

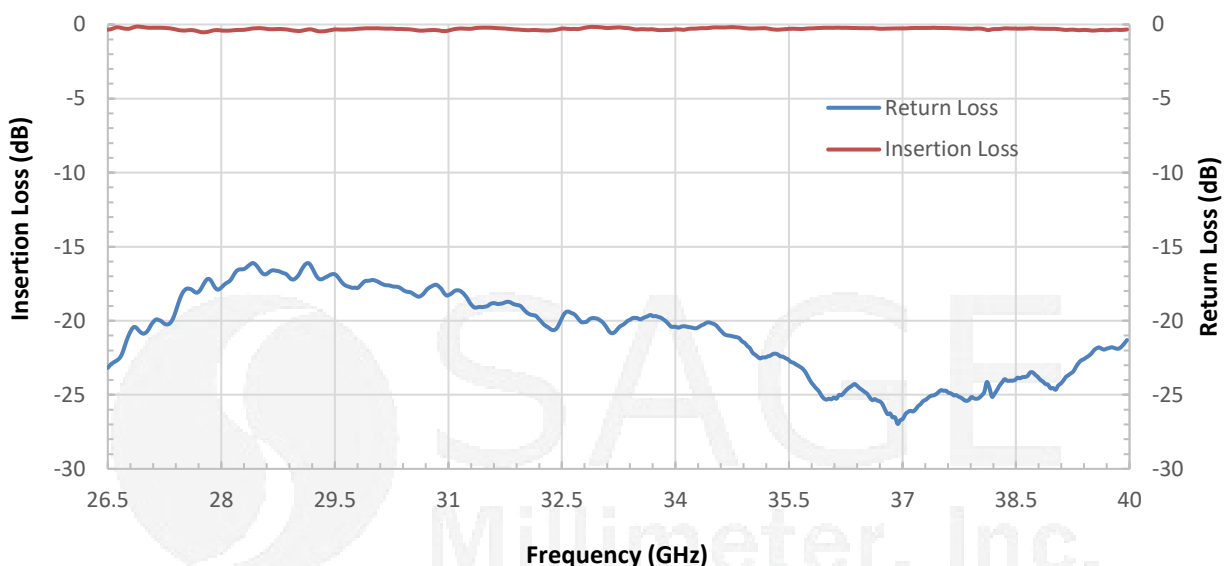


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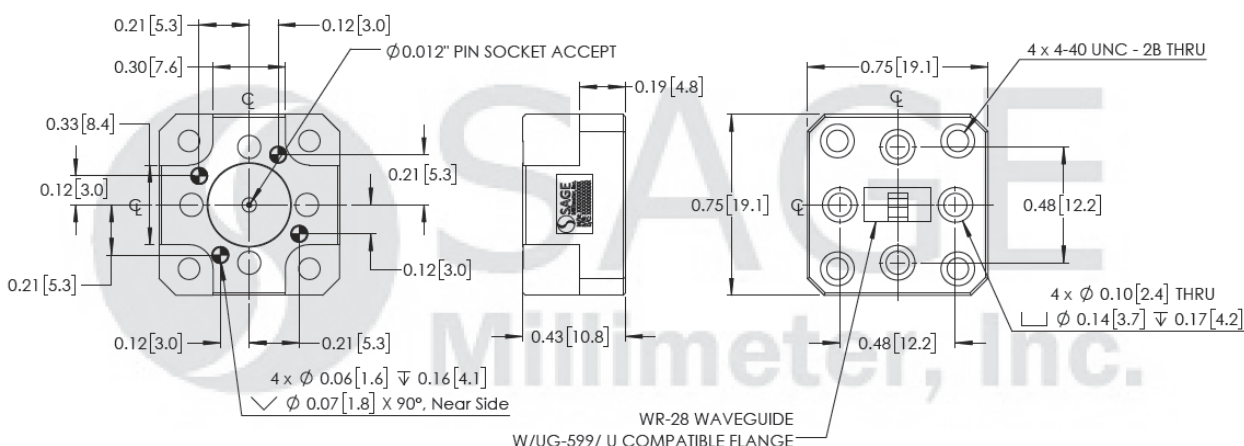
### Mechanical Specifications:

Item	Specification
Waveguide	WR-28 with UG-599/U Flange
Mounting Holes	0.480" Hole Separation, 2-56 Screws
Receptacle Hole Size	Ø0.012" (12 Mils)
Receptacle Material	Beryllium Copper per ASTM B196
Material	Aluminum
Finish	Gold Plated
Weight	0.22 Oz
Size	0.75" (W) x 0.75" (H) x 0.43" (L)
Outline	UF-A-12-480

### Typical Performance vs. Frequency



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])





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### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- Other mechanical configurations with different glass bead pin sizes, such as 9, 15, 20 and 50 mils, different mounting hole separations, and other frequency bands, such as in the frequency range of 8.2 to 110 GHz are offered under different model numbers are available under different model numbers.
- The Uni Guide™ family is a **trademarked and patent pending** product of SAGE Millimeter, Inc.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

### Caution:

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

