

## WR-34 Waveguide Crossguide Coupler, 40 dB Coupling Level

### Description:

**Model SWX-27329340-34KF-3W-BX1** is a three-port waveguide crossguide coupler that operates between 26.5 to 28.5 GHz. Compared to the multi-hole directional coupler, crossguide couplers offer lower insertion loss, lighter weight and ease system integration.

The crossguide coupler offers 40 dB typical coupling level and 15 dB directivity, respectively. The input and output ports are WR-34 waveguides with UG-1530/U flange and the coupled port is with 2.92 mm (F) connector. Other port configurations and four port version are available under various models.



### Features:

- Low Insertion Loss
- Moderate Directivity
- Coaxial coupling port

### Applications:

- Test Labs
- Test Instrumentation
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		28.5 GHz
Coupling Level		40 dB	
Directivity		15 dB	
Input Return Loss		20 dB	
Output Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

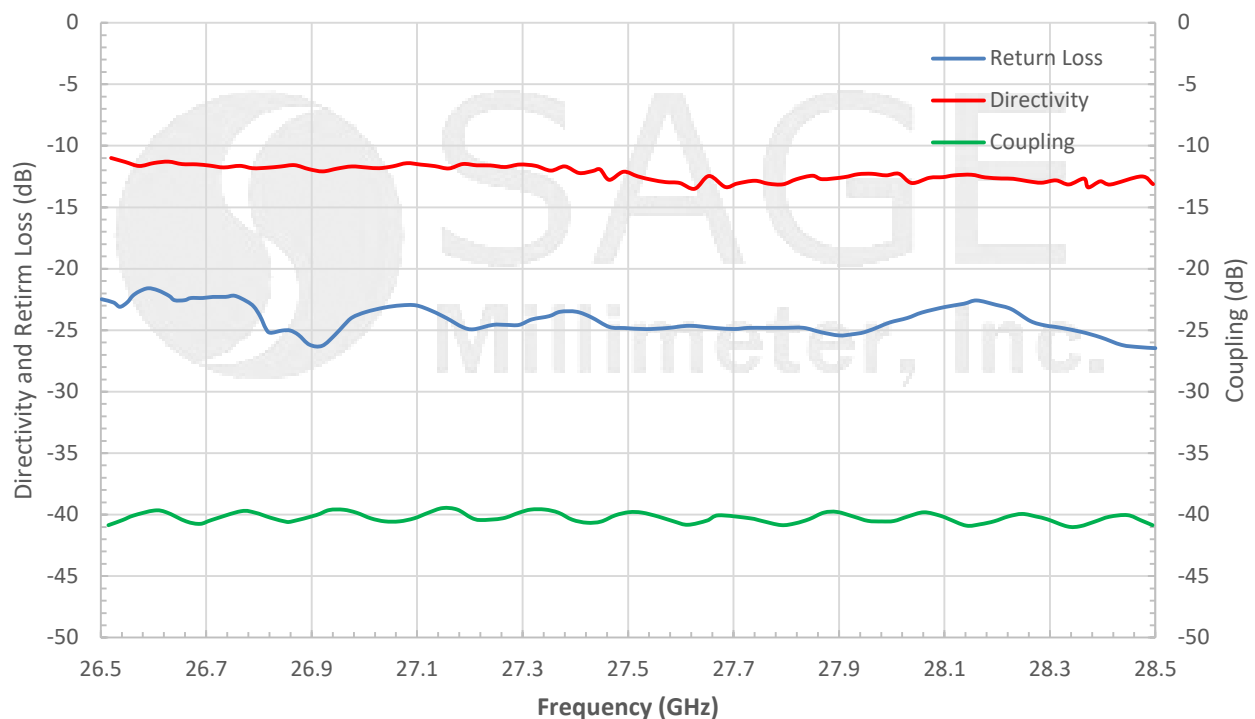
### Mechanical Specifications:

Item	Specification
Input Port	WR-34 Waveguide with UG-1530/U Flange
Output Port	WR-34 Waveguide with UG-1530/U Flange
Coupled Port	2.92 mm (K) Female Connector
Waveguide Material	Copper
Flange Material	Brass
Finish	Inner: Gold Plated. Outer: Black Paint
Weight	2.3 Oz
Size	3.54" (L) x 1.97" (W) x 0.87" (H)
Outline	WX-W3-3-BX1

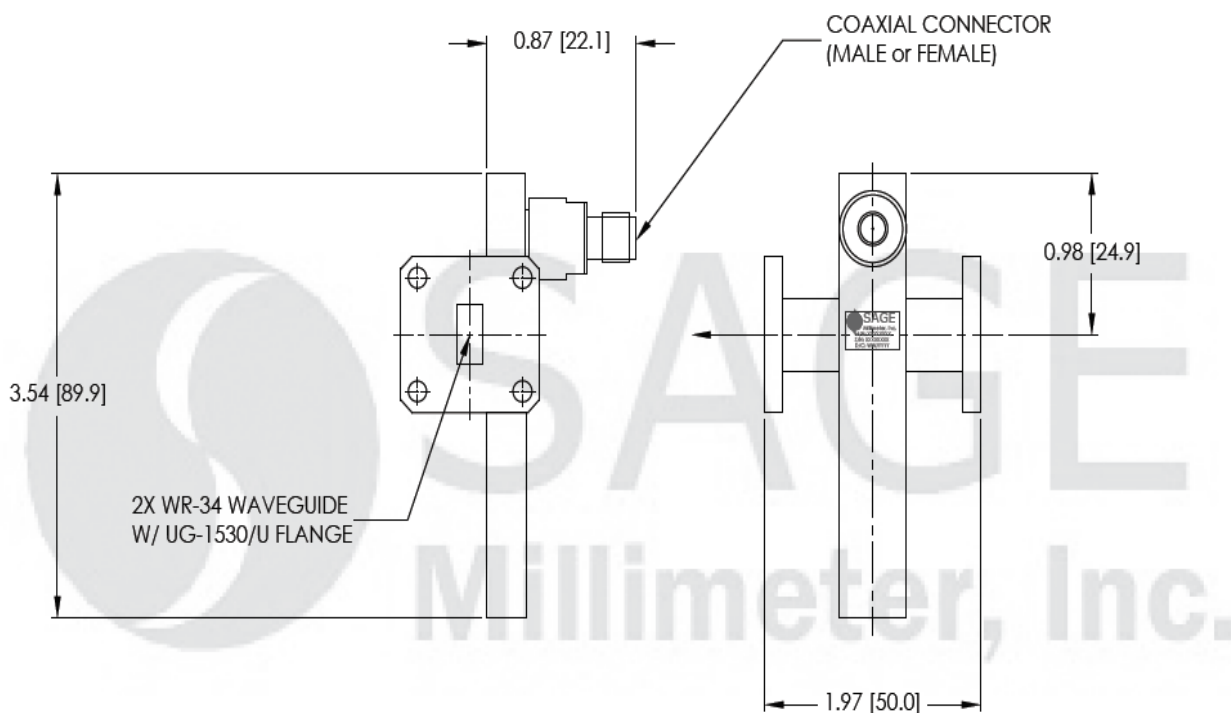


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### Typical Performance vs. Frequency



### 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.
- All testing was performed under +25°C case temperature.
- 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.

