

## STF-06-S1-WPC

### D-Band Faraday Isolator

**STF-06-S1-WPC** is a full band Faraday isolator that operates from 110 to 170 GHz. The Faraday isolator is constructed with a longitudinal, magnetized ferrite rod that causes a Faraday rotation of the incoming RF signal. The Faraday isolator offers 30 dB typical isolation and 3.0 dB nominal insertion loss with good flatness. The return loss of the isolator is 15 dB. The input and output ports are WR-06 waveguides with UG-387/U-M flanges.



### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	110 GHz		170 GHz
Insertion Loss		3.0 dB	4.0 dB
Isolation		30 dB	
Return Loss		15 dB	
Power Handling			1.0 W (CW)
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

### Mechanical Specifications:

Item	Specification
RF Ports	WR-06 Waveguide with UG-387/U-M Flange
Waveguide Material	Brass
Waveguide Finish	Gold Plated
Cover Material	Aluminum
Cover Finish	Black Anodized
Weight	2.2 Oz
Insertion Length	2.5"
Outline	TF-SD

### ECCN

EAR99

### FEATURES

- Full Waveguide Band Operation
- Moderate Insertion Loss
- High Isolation
- Instrumentation Grade

### APPLICATIONS

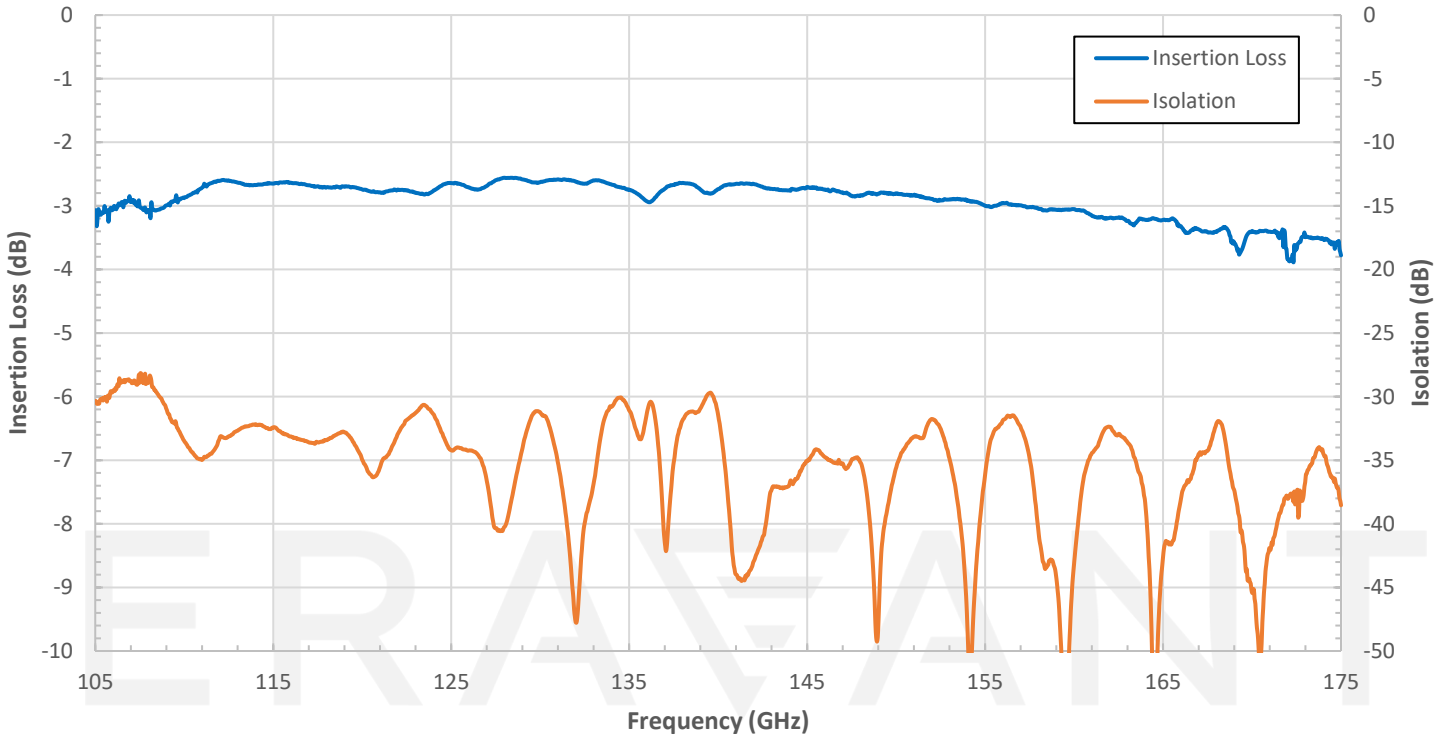
- Test Lab
- Instrumentations
- Sub-assemblies

### SUPPLEMENTAL DETAILS



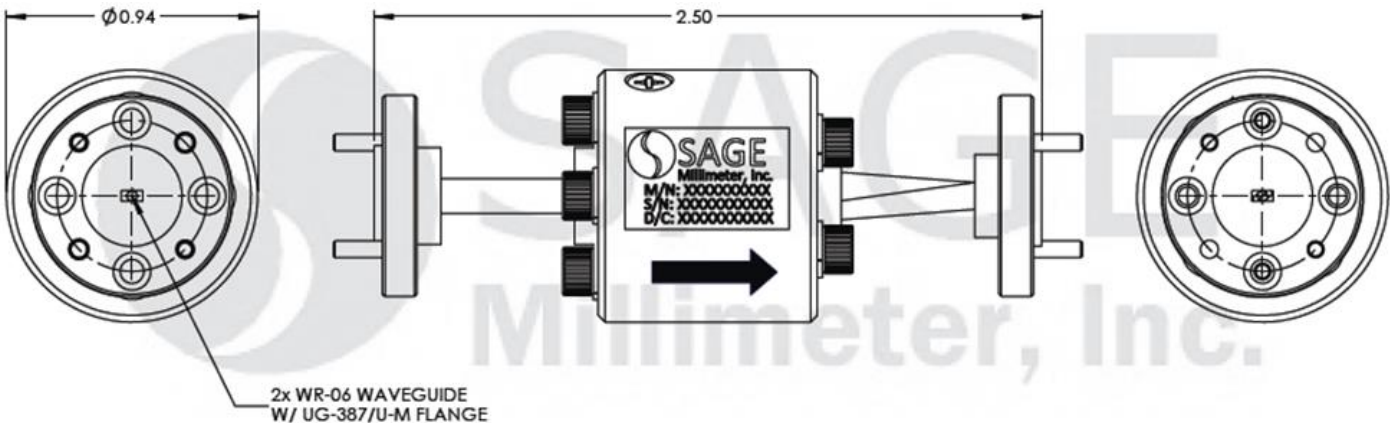
STF-06-S1-WPC

Typical Measured Performance vs Frequency



Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



**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.
- Other custom mechanical configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- Exceeding absolute maximum ratings will damage the device.
- The device is sensitive to magnetic fields. Always keep magnet fields 6 inches away.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

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