STF-19-S1-WP

U-Band Faraday Isolator

STF-19-S1-WP is a full band Faraday isolator that operates from 40 to 60 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 25 dB typical isolation and a 1.5 dB nominal insertion loss with good flatness. The return loss of the isolator is 14 dB. The input and output ports are WR-19 waveguides with UG-383/U-M flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency	40 GHz		60 GHz
Insertion Loss		1.5 dB	
Isolation		25 dB	
Return Loss		14 dB	
Power Handling		1.5 W (CW)	2.0 W (CW)
Specification Temperature		+25°C	
Operation Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Input and Output	WR-19 Waveguide with UG-383/U-M Flange
Waveguide Flange Material	Brass
Waveguide Flange Finish	Gold Plated
Cover Material	Aluminum
Cover Finish	Black Anodized
Weight	3.5 Oz
Insertion Length	2.69”
Outline	TF-SU

ECCN

EAR99

FEATURES

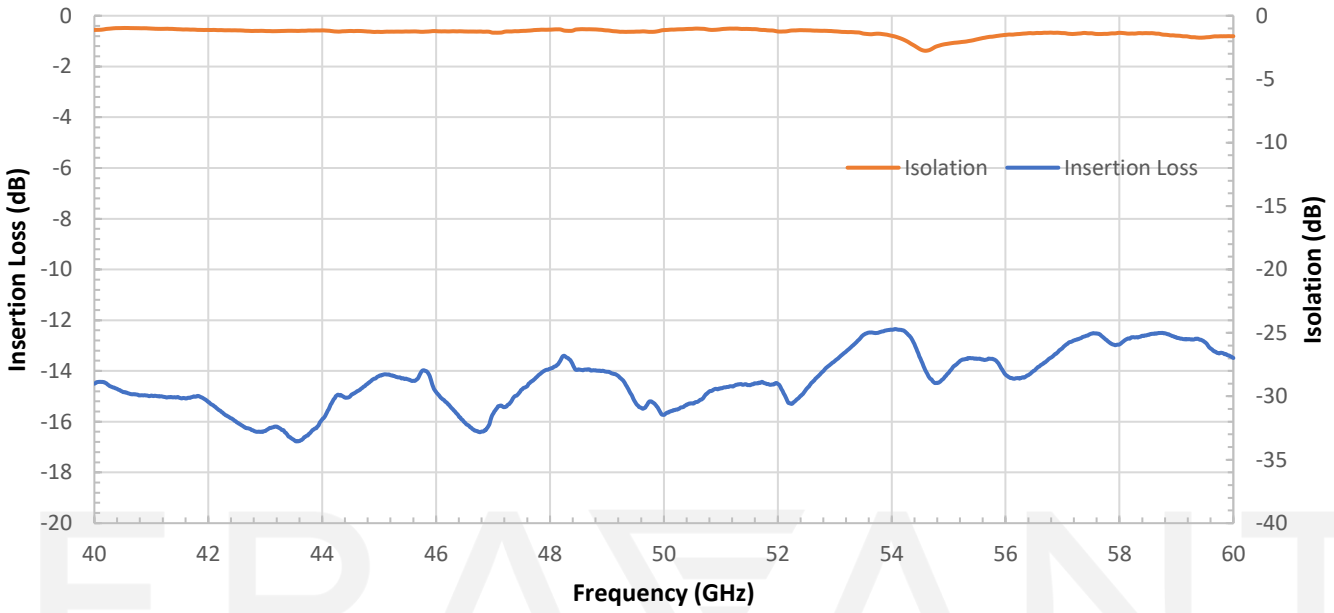
- Full Waveguide Band Operation
- Moderate Insertion Loss
- High Isolation
- Instrumentation Grade

APPLICATIONS

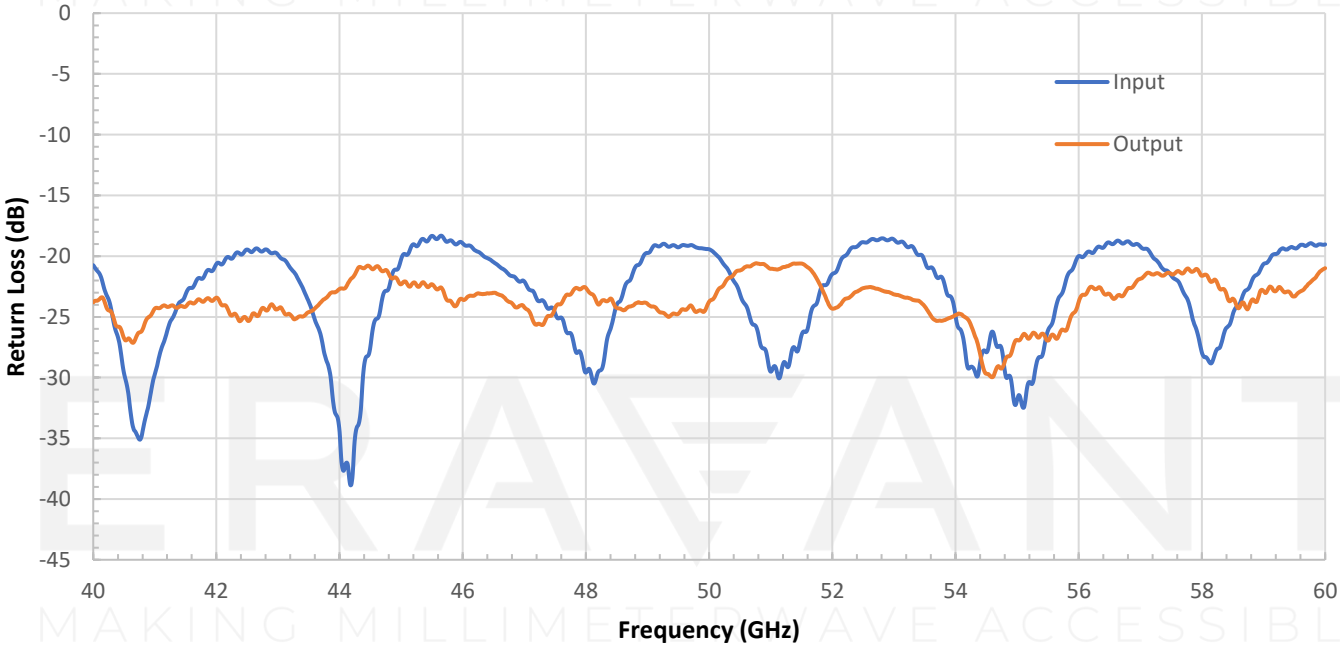
- Test Lab
- Instrumentations
- Sub-assemblies

SUPPLEMENTAL DETAILS

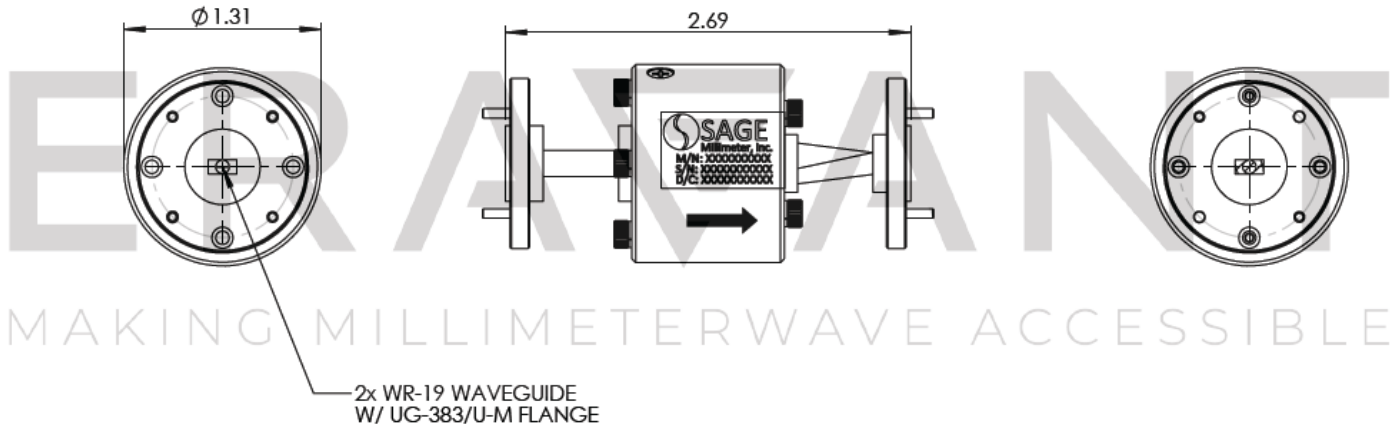
Typical Performance vs. Frequency



Typical Return Loss vs. Frequency



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- The model with orthogonal input and output ports is offered under model number STF-15-91.
- The compact version is offered under model number STF-15-S1-C.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- This device is sensitive to magnetic fields. Always keep magnet fields 6 inches away.
- Exceeding absolute maximum ratings will damage the device.