STF-19-S1-C

U-Band, Compact Faraday Isolator

STF-19-S1-C is a WR-19 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 compact, robust package is highly ideal for system integration and subassemblies where space is at a premium and allows for backside access for waveguide screws. The isolator offers 30 dB typical isolation and 1.3 dB typical insertion loss. The input and output ports are WR-19 waveguides with UG-383/U-M anti-cocking flanges. A 90-degree twisted version of this isolator is available under model **STF-19-91-C**.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	40 GHz		60 GHz
Insertion Loss		1.3 dB	
Isolation		30 dB	
Return Loss		16 dB	
Power Handling			1.5 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Waveguide Port	WR-19
Flange	UG-383/U-M Anti-Cocking
Insertion Length	2.0”
Material	Aluminum
Finish	Gold Plated
Weight	3 Oz
Outline	TF-SU-A-C

ECCN

EAR99

FEATURES

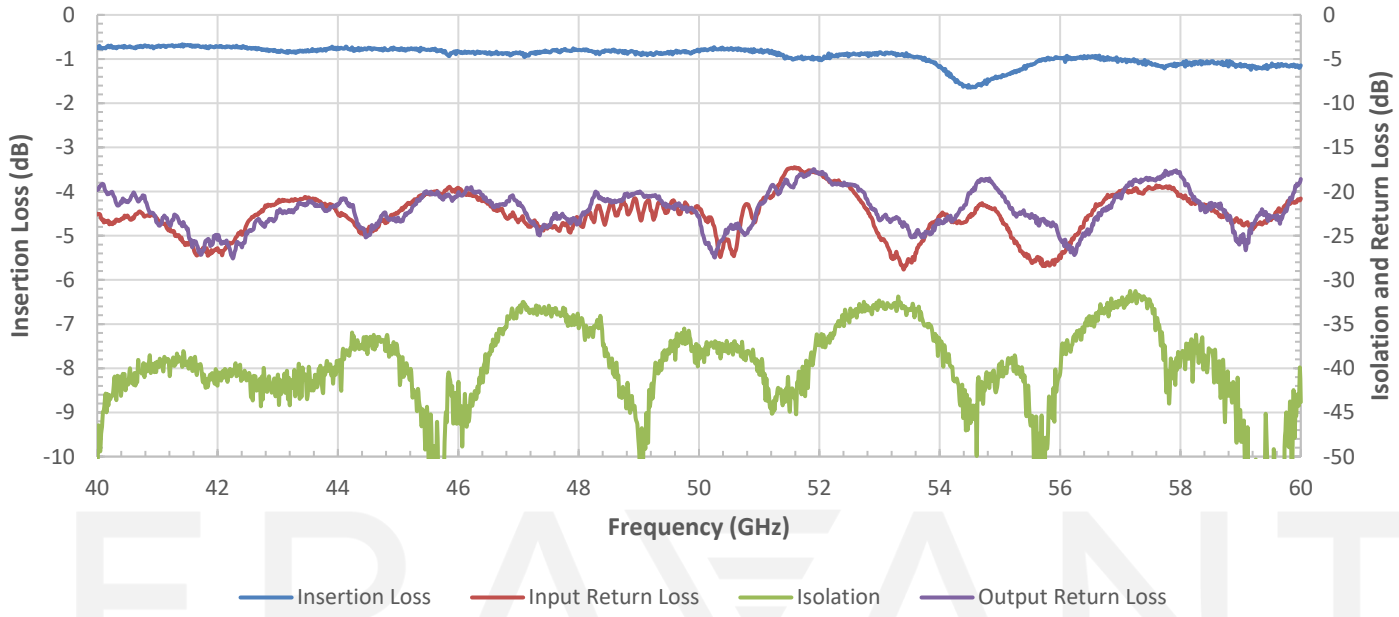
- Full Band Coverage
- Low Insertion Loss
- High Isolation
- Compact Form Factor
- Backside Flange Screw Access

APPLICATIONS

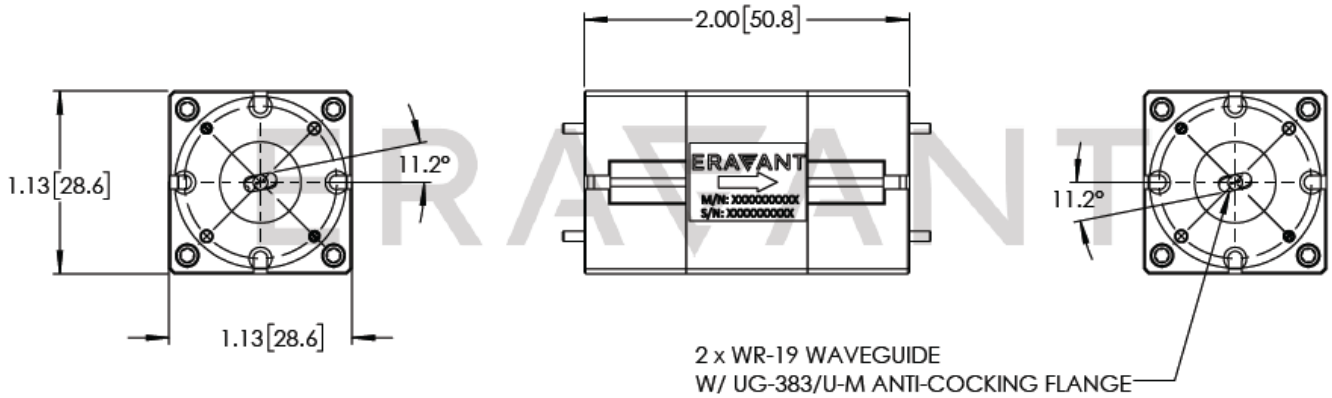
- Test Lab
- Instrumentations
- Subassemblies

SUPPLEMENTAL DETAILS

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.
- 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.