

STF-10-S1-C-WP

W-Band Full Waveguide Band Compact Faraday Isolator

STF-10-S1-C-WP is a full W band Faraday isolator that operates from 75 to 110 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 ideal for system integration and testing applications. The Faraday isolator offers 28 dB typical isolation and 2.3 dB nominal insertion loss with good flatness. The input and output ports are WR-10 waveguides with UG-387/U-M anti-cocking flanges. A 90° twist configuration is available under model number STF-10-91-C.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency	75 GHz		110 GHz
Insertion Loss		2.3 dB	
Isolation		28 dB	
Return Loss		15 dB	
Power Handling		1.0 W (CW)	1.2 W (CW)
Specification Temperature		+25°C	
Operation Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Input and Output	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated and Black Anodized
Weight	0.8 Oz
Insertion Length	1.0"
Outline	TF-SW-A-C

ECCN

EAR99

FEATURES

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

APPLICATIONS

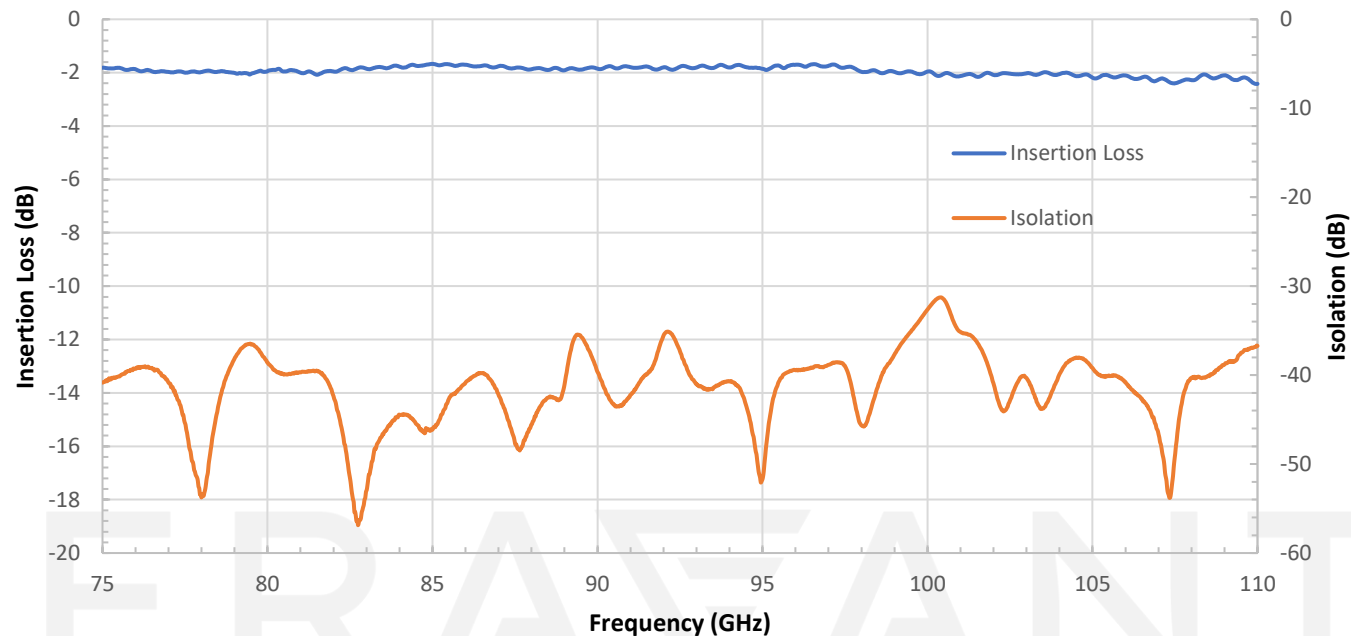
- Test Lab
- Instrumentations
- Sub-assemblies

SUPPLEMENTAL DETAILS

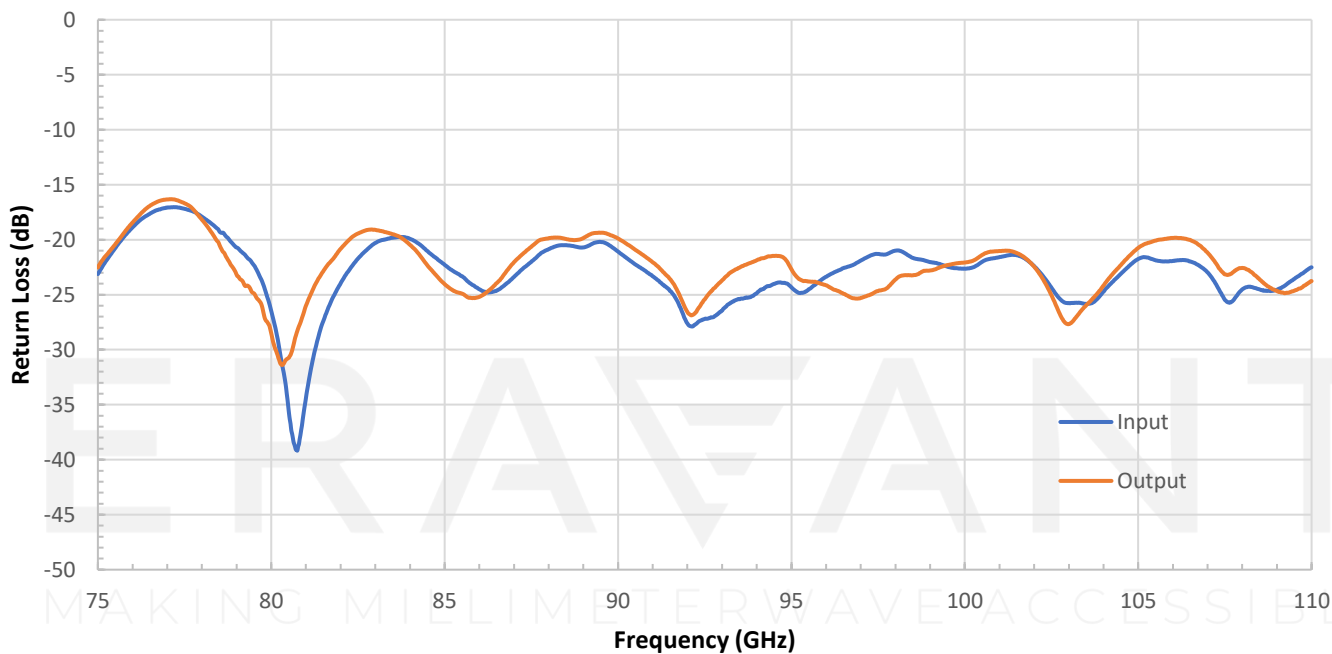


STF-10-S1-C-WP

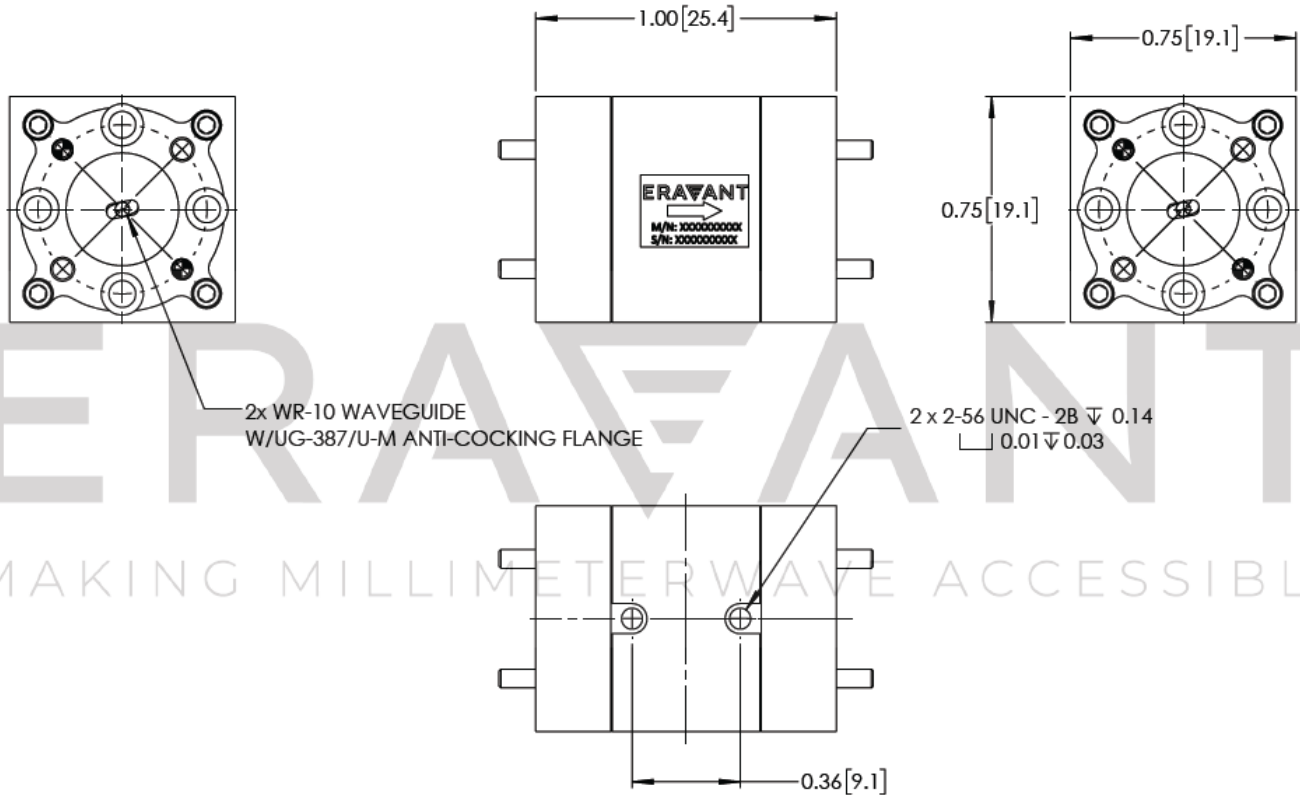
Typical Performance vs. Frequency



Typical Return Loss vs. Frequency



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



NOTE:

- Test data provided 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.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- 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.