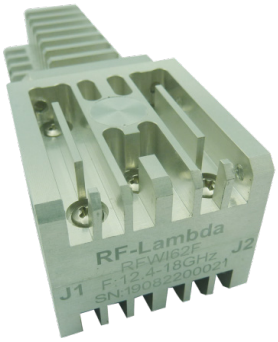
# WR62 Waveguide Isolator 12.4GHz-18GHz




## Product Description

RFWI62F is a WR62 waveguide isolator with a frequency range of 12.4 to 18GHz.

The isolator has a typical isolation of 21dB. The maximum insertion loss is 0.25dB.

The isolator interface is WR62.

## Features

- High power handling up to 100W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- High peak to average handling capability
- All specifications can be modified upon request

## Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

## Electrical Specifications ($T_A$=+25ºC)

| Parameter | Min. | Typ. | Max. | Units |
|---|---|---|---|---|
| Frequency Range | | 12.4-18 | | GHz |
| Insertion Loss | | 0.25 | 0.30 | dB |
| Isolation | 20 | 21 | | dB |
| VSWR | | 1.15 | 1.20 | : 1 |
| Forward Power (CW) | | | 100 | W |
| Reverse Power (CW) | | | 10 | W |
| Rotation | | Clockwise | | |
| Input / Output Connectors | | COVER flat 4 holes | | |
| Interface | | WR62 | | |
| Flange Type | | UG419/U | | |
| Weight | | 0.35 Max. | | lbs |



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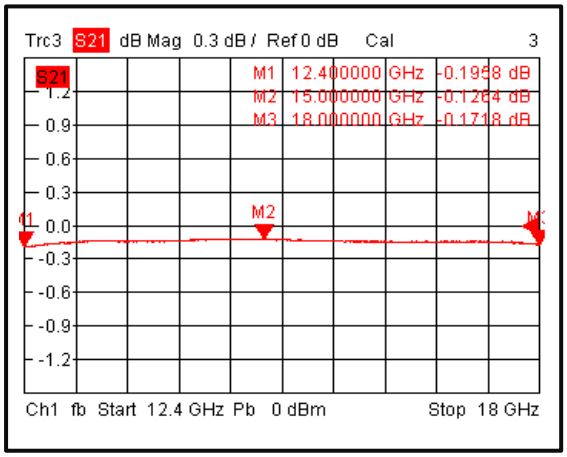
## Environmental Specifications and Test Standards

| Parameter | Description |
|---|---|
| Operational Temperature | -20ºC to +70ºC<br>(Case Temperature) |
| Storage Temperature | -40ºC to +85ºC |
| Thermal Shock | -20ºC → +70ºC<br>(5 Cycles / 10 hours) |
| **Random Vibration | MIL-STD-202G<br>Table 214-I, Test Condition Letter C<br>1.5 Hours Per Axis |
| Shock | 1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s<br>2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s<br>3. Total 18 times (6 directions, 3 repetitions per direction). |
| Altitude | Standard: 30,000 Ft (Epoxy Sealed Controlled Environment)<br>Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min) |
| Hermetically Sealed<br>(Optional) | MIL-STD-883 (For Hermetically Sealed Units) |

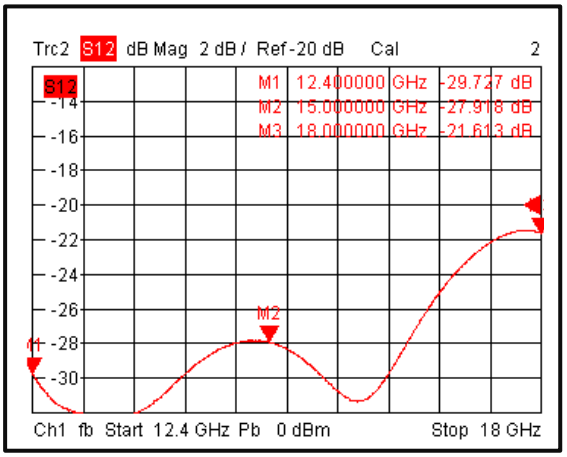
**For vibration testing details please see additional information section.

## Typical Performance Plots

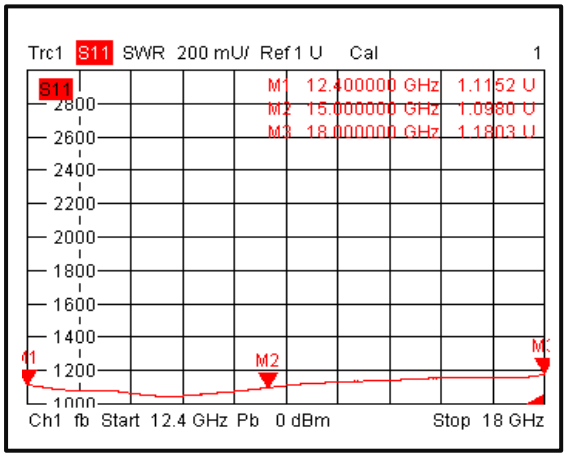
### Insertion Loss



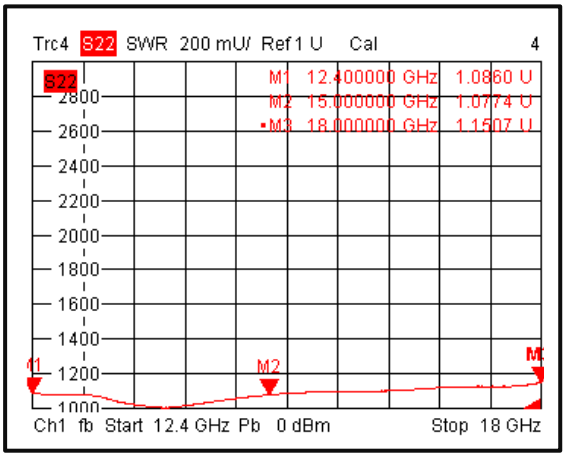

### Isolation




### VSWR 1

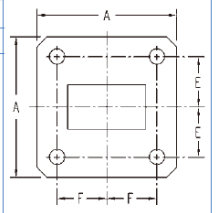


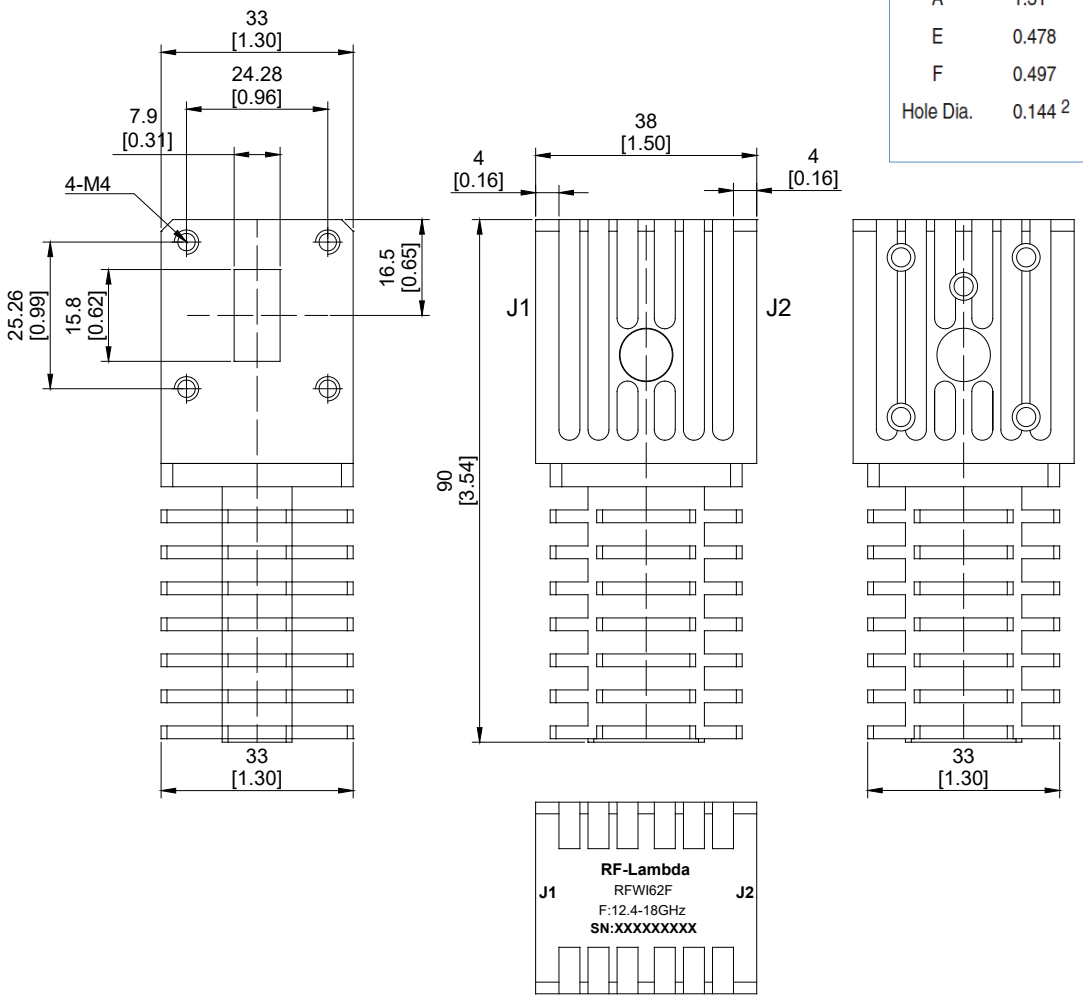

### VSWR2



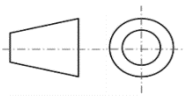
## Outline Drawing

| WR62 | WG18 | R140 |
|---|---|---|
| UG419/U | | UBR140 |
| Dimensions | inches | mm |
| A | 1.31 [1] | 33.30 |
| E | 0.478 | 12.14 |
| F | 0.497 | 12.63 |
| Hole Dia. | 0.144 [2] | 4.085 |




Notes:
1. Package Material: Aluminum alloy
2. Finish : Conductive Oxidation
3. All dimensions are in millimeters [inches]
4. Outline Tolerances ±0.5 [0.02], Mounting Hole Tolerances ±0.2 [0.008] unless otherwise specified.
5. * Air cooling is Required - Mandatory for High Power Operation.



### Additional Information

| Documentation | Webpage |
|---|---|
| Connector Torque Specifications | https://www.rflambda.com/pdf/Torque_Specifications.pdf |
| Random Vibration Test Standard | https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf |

## Ordering Information

| Part Number | Modification | Description |
|---|---|---|
| RFWI62F | WR62 | 12.4-18GHz Waveguide Isolator |





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