

## Ultra Wide Band WR34 Waveguide Circulator 22 – 33GHz



### Features

- High power handling up to 25W
- High isolation within operational band
- Low Insertion Loss

### Typical Applications

- Aerospace and military applications
- Test and Measurement
- Wireless Infrastructure

Electrical Specifications,  $T_A=25\text{ }^\circ\text{C}$

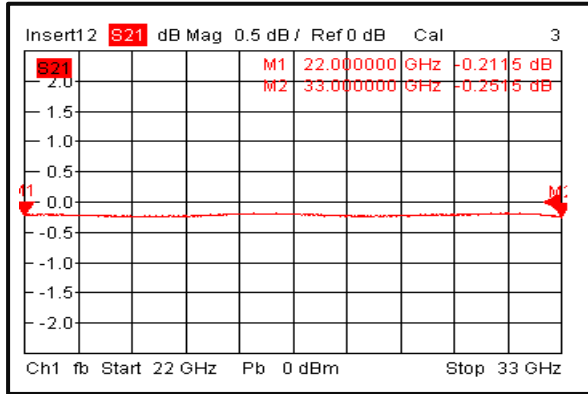
| Parameter          | Min.           | Typ. | Max. | Units    |
|--------------------|----------------|------|------|----------|
| Frequency Range    | 22-33          |      |      | GHz      |
| Insertion Loss     |                | 0.40 | 0.50 | dB       |
| Isolation (Note 1) | 18             | 19   |      | dB       |
| VSWR               |                | 1.25 | 1.30 | :1       |
| Forward Power (CW) |                |      | 25   | W        |
| Rotation           | Clockwise      |      |      |          |
| Flange Type        | UBR260         |      |      |          |
| Finish             | Silver plated  |      |      |          |
| Case Material      | Aluminum Alloy |      |      |          |
| Weight             | 1.06           |      |      | ounces   |
| Impedance          | 50             |      |      | $\Omega$ |

**Environmental Specifications and Test Standards**

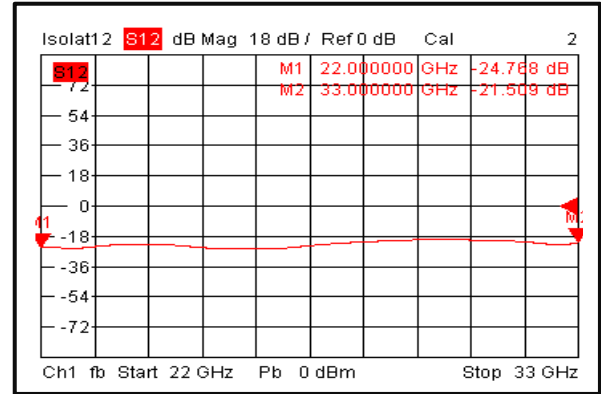
| Parameter                      | Description   |
|--------------------------------|---|
| Operational Temperature        | -20°C~+60°C<br>(Case Temperature)   |
| Storage Temperature            | -45°C~+85°C   |
| Thermal Shock                  | -20°C~+60°C<br>(5 Cycles / 10 hours)  |
| Random Vibration               | MIL-STD-202G<br>Table 214-I, Test Condition Letter C<br>1.5 Hours Per Axis  |
| High Temperature Burn In       | Temperature +85°C for 72 Hours  |
| 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 (Optional) | MIL-STD-883 (For Hermetically Sealed Units)   |

Typical Performance Plots

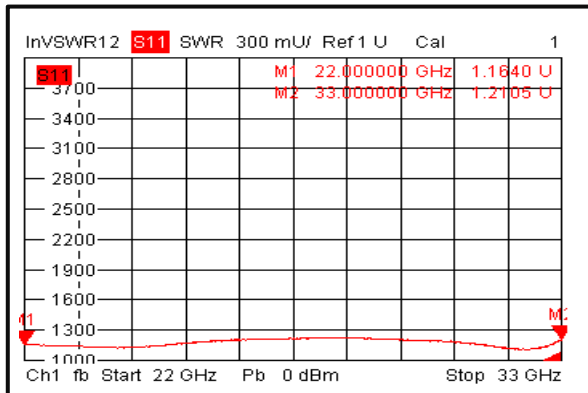
**Insertion Loss**



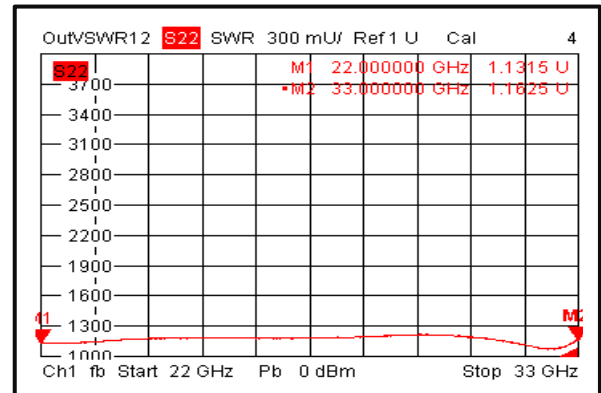
**Isolation**



**VSWR 1**



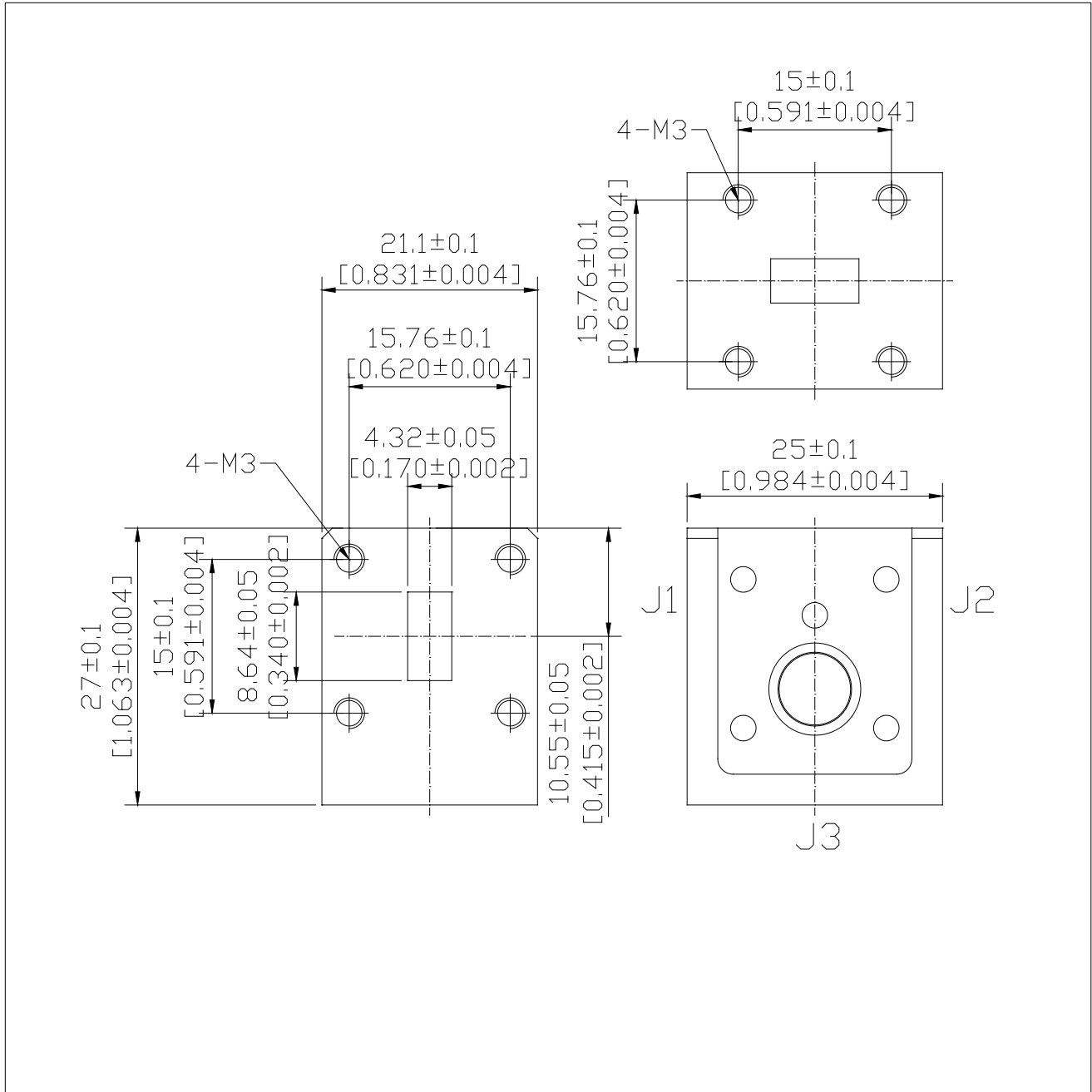
**VSWR2**



**Outline Drawing:**

All Dimensions in mm [inches]

Tolerance  $\pm 0.25$  [0.01]



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