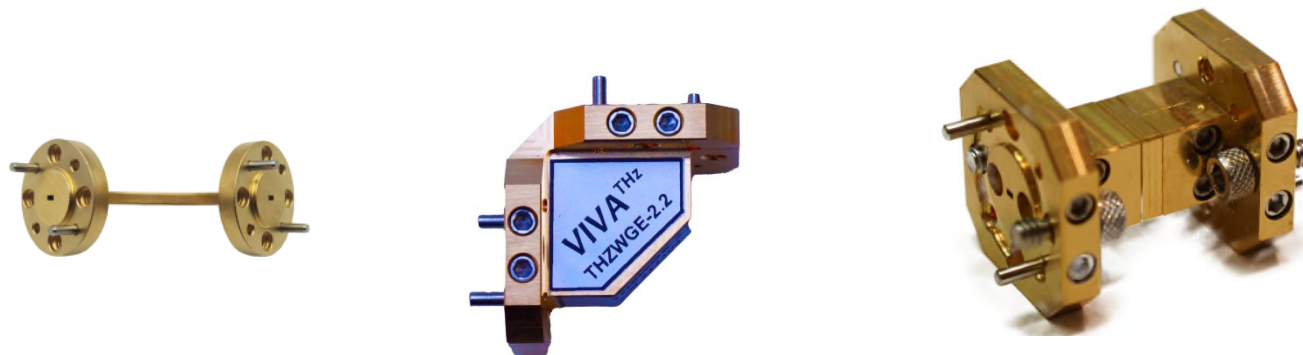


## Waveguide Bends & Twists

### General Features

- Frequency coverage: up to 1100 GHz
- High precision
- Custom length possible
- Low loss
- Robust versions machined from solid



### Specifications

Model E/H Plane 90° Bend	Model Twist 90° ** Note 6	Frequency Coverage (GHz)	Waveguide Designation	New IEEE Waveguide Designation	Standard Flange <sup>-2</sup>
THZWGE/H-10	THZWGTW-10	75 – 110	WR 10	WM-2540	UG 387/U-M
THZWGE/H-08	THZWGTW-08	90 – 140	WR 08	WM-2022	UG 387/U-M
THZWGE/H-06	THZWGTW-06	110 – 170	WR 06	WM-1651	UG 387/U-M
THZWGE/H-05	THZWGTW-05	140 – 220	WR 05	WM-1295	UG 387/U-M
THZWGE/H-04	THZWGTW-04	170 – 260	WR 04	WM-1092	UG 387/U-M
THZWGE/H-03	THZWGTW-03	220 – 330 <sup>-3</sup>	WR 03	WM-864	UG 387/U-M
THZWGE/H-2.8	THZWGTW-2.8	260 – 400	WR 2.8	WM-710	UG 387/U-M Precision
THZWGE/H-2.2	THZWGTW-2.2	330 – 500	WR 2.2	WM-570	UG 387/U-M Precision
THZWGE/H-1.5	THZWGTW-1.5	500 – 750	WR 1.5	WM-380	UG 387/U-M Precision
THZWGE/H-1.0	THZWGTW-1.0	750 – 1100	WR 1.0	WM-250	UG 387/U-M Precision

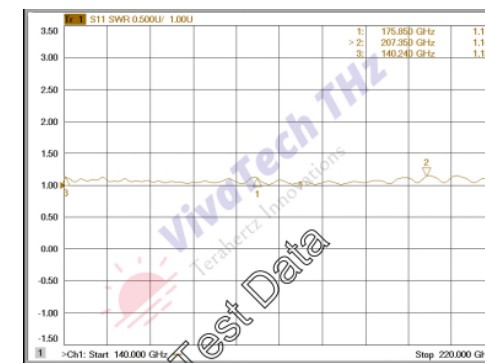


Fig 1 WR5.1 90 deg Twist

### Notes

1. Model THZWGE-XX is an E plane 90 deg Bend. Model THZWGH-XX is the H plane equivalent.
2. New waveguide definitions are now also in use above 75 GHz, as defined by IEEE.
3. There are variations in industry 'standard' flanges. Precision flanges have tighter tolerances. Specify your needs.
4. Waveguide WR 03 historically covers 220-325 GHz. The new standard WM-864 extends coverage to 220 – 330 GHz.
5. Standard waveguides have length 25 mm, bends 25 x 25 mm, twists have length 25 mm.
6. \*\*\*Shim 90 deg twists' with 0.2 mm thickness and reduced loss are available to special order.

**How to make a request:** specify Model number, or custom dimensions if required. Email to: [sales@vivatechthz.com](mailto:sales@vivatechthz.com)

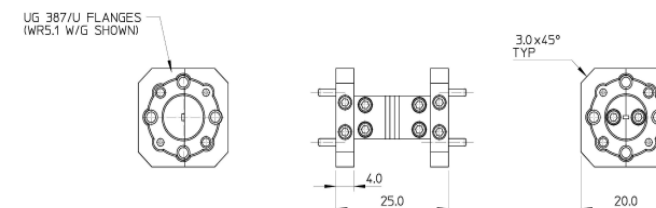
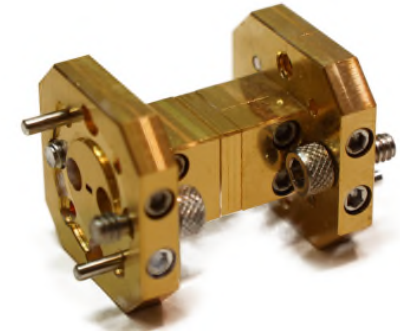


Fig 2 WR5.1 Twist Outline

## Waveguide Bends & Twists - continued

### Sample Test Data

- Frequency coverage: up to 1100 GHz
- High precision
- Custom length possible
- Low loss
- Robust versions machined from solid



### WR2.8 Bends and Twists

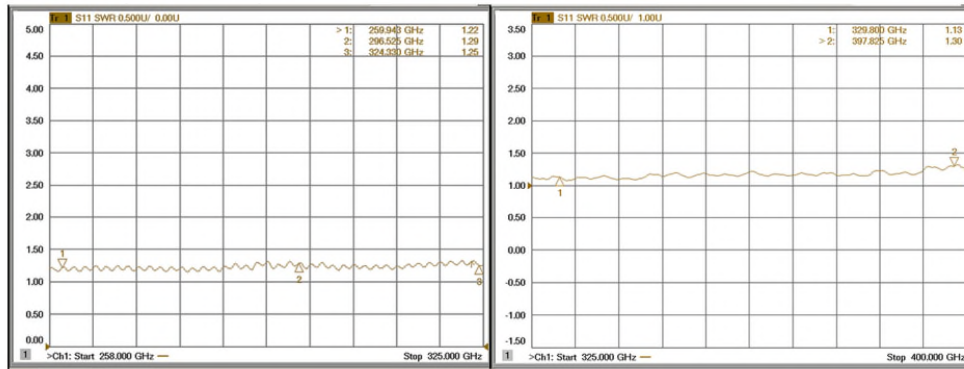


Fig 3 WR2.8 E Bend VSWR

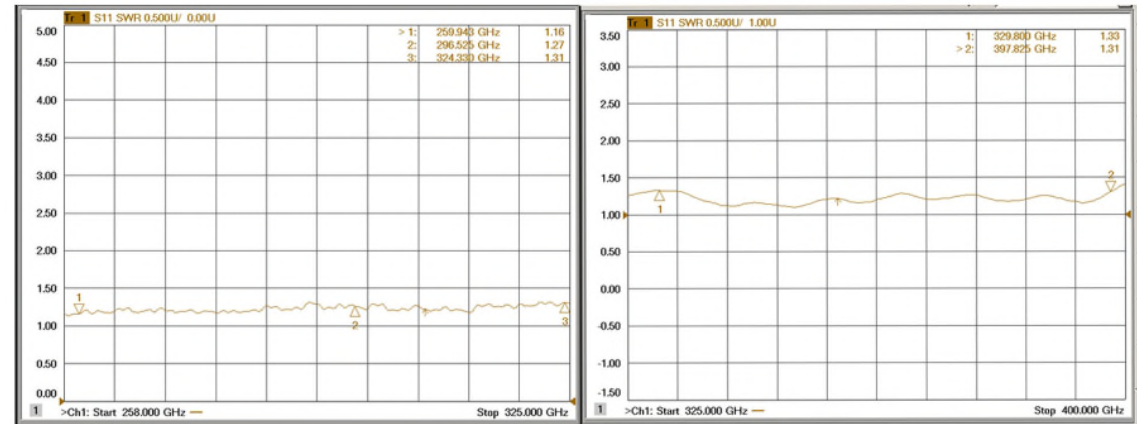


Fig 4 WR2.8 Twist VSWR