

## Fullband Subharmonic Mixers

### General Features

- Frequency coverage: 110 - 350 GHz
- Waveguide full bandwidths up to 330 GHz
- Local Oscillator Frequency = ½ RF
- LO Power +10 to +13 dBm
- Low conversion loss
- IF > 20 GHz

### Specifications

| Model        | RF Frequency (GHz) | LO Frequency (GHz) | Conversion Loss (dB) <sup>-1</sup> | IF Range (GHz) <sup>-3</sup> | RF/LO Waveguide      |
|--------------|--------------------|--------------------|------------------------------------|------------------------------|----------------------|
| THZSHM-06    | 110-170            | 55-85              | 10 typical                         | 0.1-20                       | WR 06/12, UG387/U-M  |
| THZSHM-04    | 170-260            | 85-130             | 10 typical                         | 0.1-20                       | WR 04/08, UG387/U-M  |
| THZSHM-03    | 220-330            | 110-165            | 12 typical                         | 0.1-20                       | WR 03/06, UG387/U-M  |
| THZSHM-2.8NB | 300-350            | 160-175            | 15 typical                         | 0.1-20                       | WR 2.8/06, UG387/U-M |



Figure 1 THZSHM-03 220-330 GHz

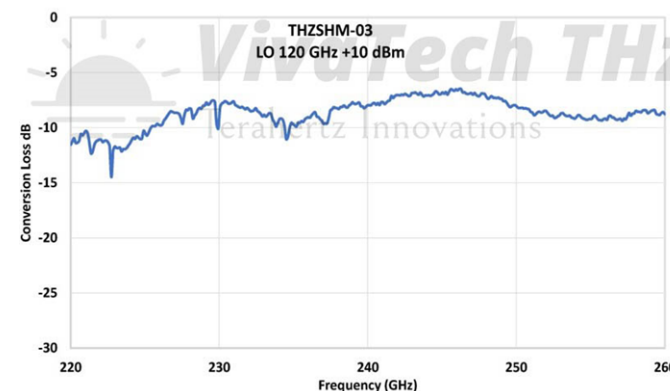


Figure 2 Typical Conversion Loss THZSHM-03

### Notes

1. Conversion loss, DSB, with LO optimized @ +10 dBm typical
2. Option: combined mixer / LO units; send request
3. IF bandwidths > 20 with variable LO. (IF may extend to 35 GHz with fixed LO, send request)
4. IF connector SMA-F/K-F
5. **How to make a request:** specify Model and RF, IF, LO frequency range, LO power, conversion loss, and email to: [sales@vivatechthz.com](mailto:sales@vivatechthz.com)