

Description

Mi-Wave's 523 Series Micrometer-driven Calibrated Attenuators are compact precision attenuating devices available in standard waveguide sizes from 18.0 to 220 GHz.

Each attenuator is calibrated at the frequency specified at the time of order, and a curve of attenuation vs. dial-reading is included with every unit. Calibration curves at other frequencies are also available.

- *High Resolution*
- *Micrometer Readout*
- *Differential Screw Drive*
- *Anti-backlash Operation*
- *Excellent Mechanical Stability*
- *Calibration Accuracy: 0.2 dB or 2%*
- *Calibration Curve Provided at Specified Frequency*

Applications

The 523 Series Micrometer-driven Calibrated Attenuators are designed for laboratory applications in standard waveguide bands from 18.0 to 220.0 GHz. The drive mechanism is designed for the high resolution of vane insertion vs. attenuation characteristics that is required for the small waveguide dimensions associated with the higher millimeter wave frequencies. These attenuators are very useful for insertion loss measurements, and a wide variety of other attenuation and power level determinations.

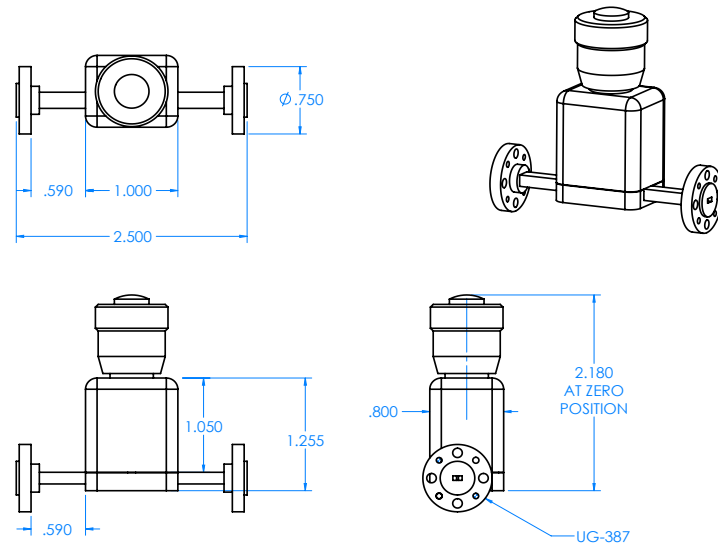


| Dimensional Specifications | | | | |
|----------------------------|-----|------|------|------|
| Model No. | A | | B' | |
| | in | mm | in | mm |
| 523F | 2.0 | 50.8 | 3.65 | 92.9 |
| 523D | 2.0 | 50.8 | 3.65 | 92.7 |
| 523G | 2.0 | 50.8 | 3.65 | 92.7 |

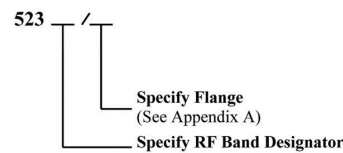
1. 1.415 in. (105.4 mm) maximum dimensions with micrometer fully extended.

OTHER BANDS AVAILABLE:

- WR-42, 34, 28, 22, 19, 15, 12, and 10.



Ordering Information



| Technical Specifications (typical) | | | | | | | | | | |
|------------------------------------|---------|---------|-------|-------|-------|-------|--------|--------|---------|---------|
| Model No. | 520K | 520A | 520B | 520U | 520V | 520E | 520W | 520F | 520D | 520G |
| Frequency Band (GHz) | 18–26.5 | 26.5–40 | 33–50 | 40–60 | 50–75 | 60–90 | 75–110 | 90–140 | 110–170 | 140–220 |
| VSWR Max. | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.20 | 1.25 | 1.25 | 1.30 |
| Attenuation | | | | | | | | | | |
| Range (dB) Min. | 0–30 | 0–30 | 0–30 | 0–30 | 0–30 | 0–25 | 0–25 | 0–23 | 0–20 | 0–20 |
| Insertion Loss @ | | | | | | | | | | |
| 0 Setting (dB) | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 |
| Weight (oz) | 8.0 | 6.0 | 6.0 | 6.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 2.5 |
| Average Power (watts) | 1.5 | 1.0 | 1.1 | 1.0 | 0.5 | 0.4 | 0.3 | 0.2 | .15 | .1 |