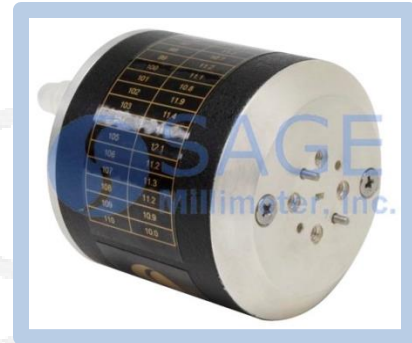




Full Waveguide Band, W-Band High ENR Noise Source

Description:

Model STZ-75311420-10-01 is a W-Band noise source that delivers an 20 dB nominal ENR with extreme flatness across the frequency range of 75 to 110 GHz. The noise source can work in either CW or pulse AM mode by applying a TTL triggering signal via a female SMA connector. This feature can also be used in automatic test systems to remotely turn the noise source on and off. In addition, a toggle switch (power/triggering inversion switch) is provided to turn the noise source on and off manually.



Features:

- Full Waveguide Band Operation
- TTL or Manual On and Off Switches
- CW or Pulsed AM Operation Modes
- Precision Calibrated and Flat ENR

Applications:

- Test Labs
- Instrumentations
- Radiometric Systems

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------------|----------------------------|----------------------------|----------------------------|
| Input Frequency Range | 75.0 GHz | | 110.0 GHz |
| ENR | 17.0 dB | 20.0 dB | |
| ENR Flatness | | ±1.5 dB | |
| Temperature Stability | | 0.01 dB/°C | |
| Long Term Temperature Stability | | 0.05 dB/day | |
| AM Modulation Trigger | TTL | | |
| AM Modulation Rate | 1.0 KHz | | |
| DC Bias | +18 V _{DC} /50 mA | +28 V _{DC} /60 mA | +30 V _{DC} /75 mA |
| Specification Temperature | +25°C | | |
| Case Temperature | 0°C | | +50°C |

Mechanical Specifications:

| Item | Specification |
|------------------------------|--|
| RF Output | WR-10 Waveguide with UG-387/U-M Flange |
| Bias Port Connector Type | BNC (F) |
| AM Modulation Connector Type | SMA (F) |
| Size | 1.97" (L) x 1.97" (Ø) |
| Finish | Silver Plated and Black Paint |
| Weight | 7.0 Oz |
| Outline | TZ-OW |

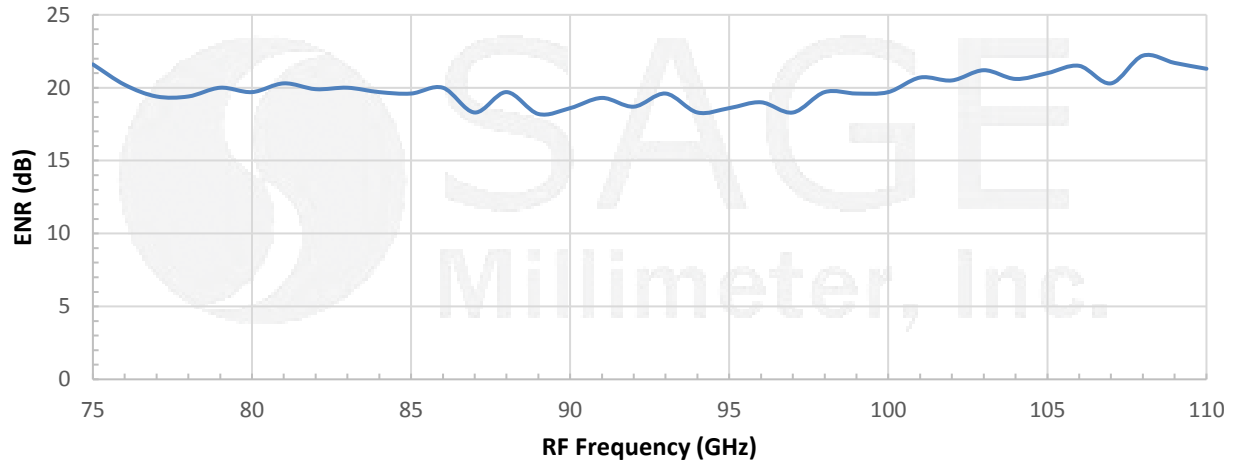




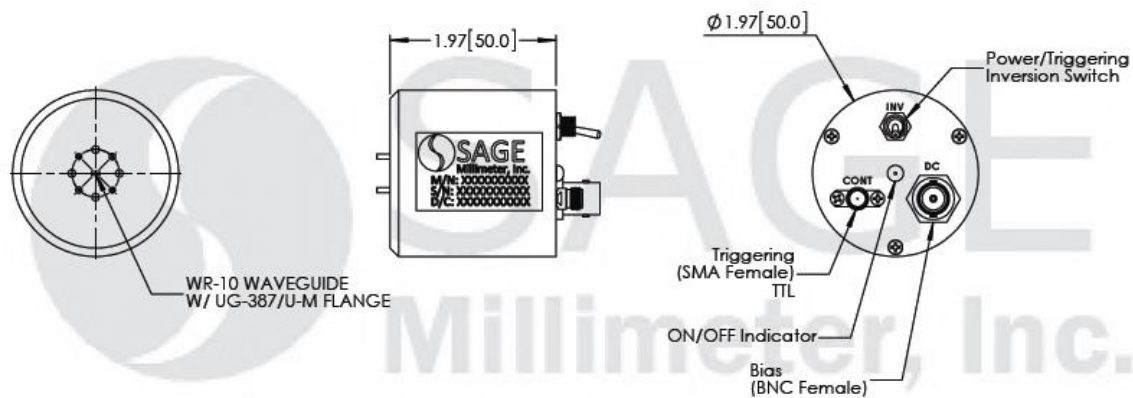
Full Waveguide Band, W-Band High ENR Noise Source

Typical ENR vs. Frequency

V_{DC} : +28 V, I_{DC} : 60 mA



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25°C case temperature.
- The **Triggering Port** (female SMA connector) of the noise source is provided to turn the noise source on and off via a TTL control signal any time the **Bias** is applied. The switching frequency is limited to 1 KHz.
- The **Power/Triggering Inversion Switch** of the noise source is provided to manually turn the noise source on and off any time the **Bias** is applied. When the switch is in the “ON” position, the LED light will be illuminated.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings will damage the device.



www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

Full Waveguide Band, W-Band High ENR Noise Source

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

