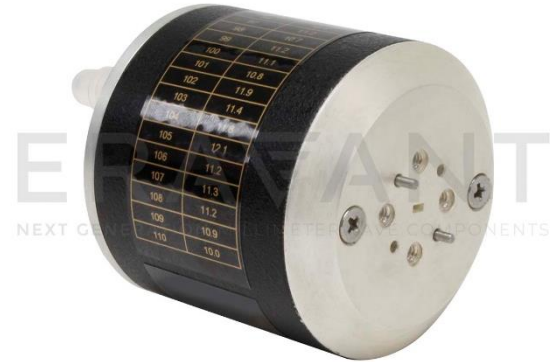


STZ-75311420-10-01

Full Waveguide Band, W-Band High ENR Noise Source

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. A Calibration Certificate for ENR values will be included.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Input Frequency Range | 75 GHz | | 110 GHz |
| ENR | 17 dB | 20 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 Port | WR-10 Waveguide with UG-387/U-M Flange |
| Bias Port Connector Type | BNC (F) |
| AM Modulation Connector Type | SMA (F) |
| Finish | Silver Plated and Black Paint |
| Weight | 7.0 Oz |
| Size | 1.97" (L) x 1.97" (Ø) |
| Outline | TZ-OW |

ECCN

EAR99

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

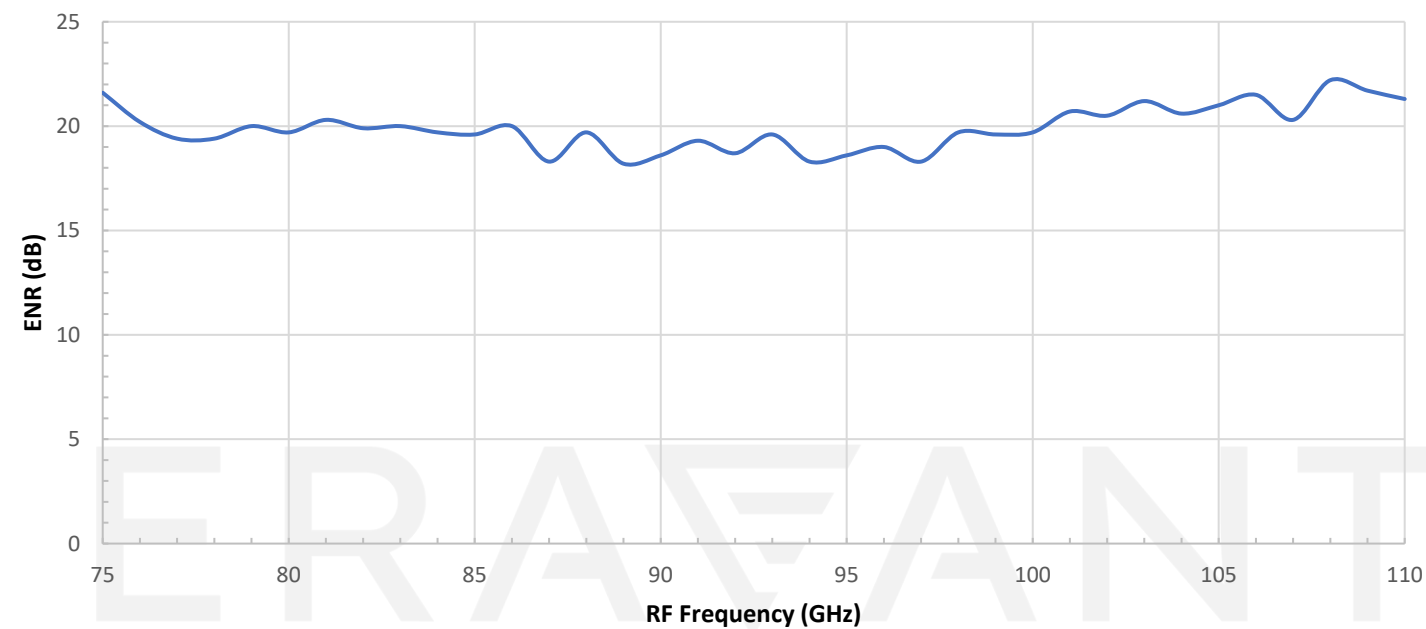
SUPPLEMENTAL DETAILS



STZ-75311420-10-01

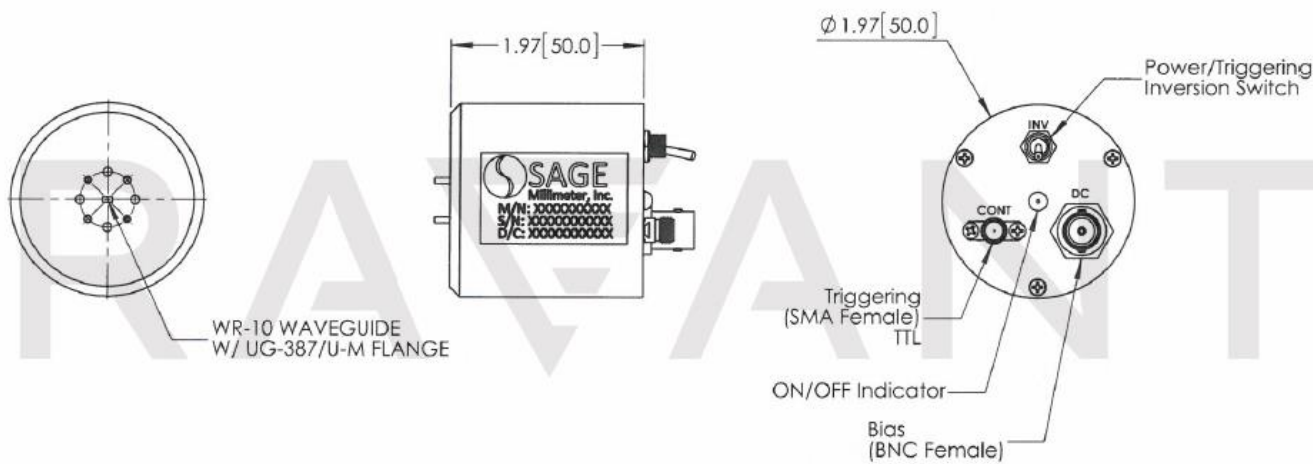
Typical ENR vs. Frequency

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



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- The **Triggering Port** (female SMA connector) of the noise source is provided to turn the noise source on the 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 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.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum rating will damage the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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