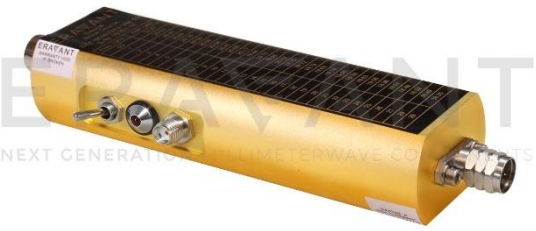
STZ-05250318-2M-0T2

2.4 mm Coaxial Noise Source with TTL, 0.5 to 50 GHz

STZ-05250318-2M-0T2 is a coaxial noise source that delivers 18 dB nominal ENR across the frequency range of 500 MHz to 50 GHz. The RF port uses a 2.4 mm (M) connector and the DC bias port is equipped with a BNC (F) connector, which is readily available for standard noise figure meter and noise figure analyzer interfaces. The noise source is designed with improved port return loss for more reliable and accurate noise figure measurements. The noise source can work also in either CW or pulse AM mode up to 1 kHz depending on the driving signal. The noise source features a TTL triggering signal port for automatic test systems and a toggle switch to manually turn the module on and off. A Calibration Certificate for ENR values will be included.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	500 MHz		50 GHz
ENR		18 dB	
ENR Flatness		± 4.5 dB	
AM Modulation Rate		1 kHz	
Return Loss		15 dB	
DC Voltage		+28 V_{DC}	
DC Current		25 mA	
Specification Temperature		+25°C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
RF Output Port	2.4 mm (M)
Bias Port	BNC (F)
TTL Port	SMA (F)
Power Switch	Toggle
Housing Material	Brass
Housing Finish	Gold Plated
Weight	9.2 Oz
Size	4.50” (L) x 1.20” (W) x 0.80” (H)
Outline	TZ-OC-2

ECCN

EAR99

FEATURES

- 0.5 to 50 GHz Operation
- Precision Calibrated and Flat ENR
- Excellent Return Loss

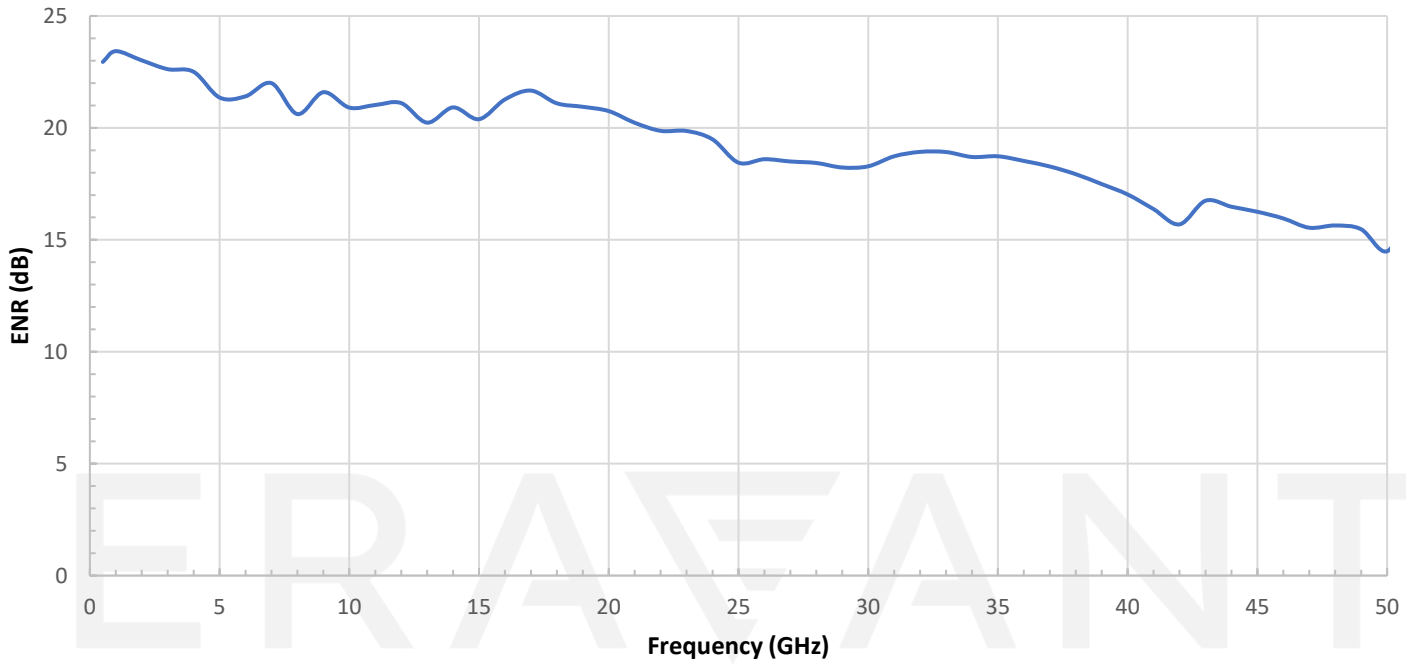
APPLICATIONS

- Test Lab
- Instrumentation

SUPPLEMENTAL DETAILS

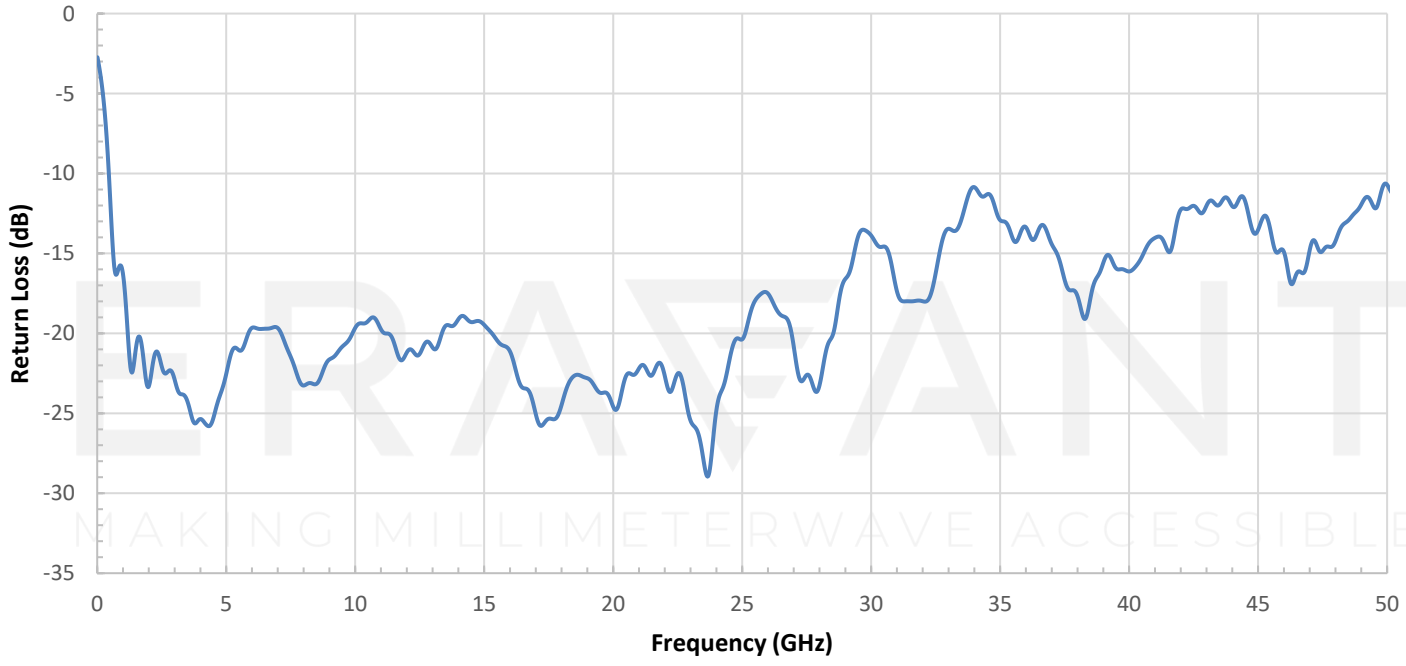
ENR vs. Frequency

Bias: +28 V_{DC}/25 mA

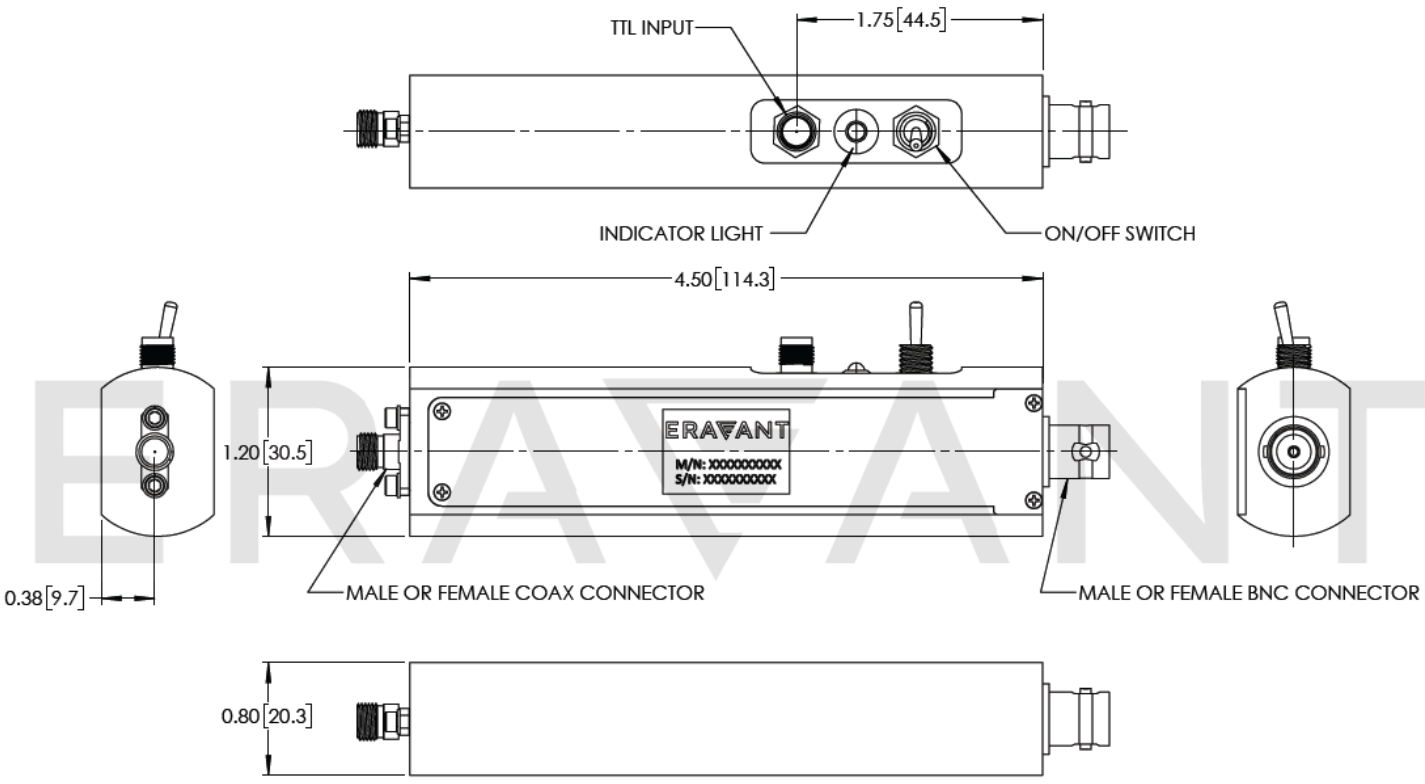


Return Loss vs. Frequency

Bias: +28 V_{DC}/25 mA



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



NOTE:

- 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.
- Test data is collected from a sample lot. The ENR table may vary from unit to unit.
- All testing is performed under +23 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Exceeding absolute maximum ratings will damage the device.
- Any foreign objects in the waveguide or magnetic field presented will cause performance degradation and possible device damage. Always keep magnetic fields 6 inches away.
- 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). **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**