STZ-55396320-12-IT2

E-Band High ENR Noise Source, with Isolator, 55 to 96 GHz

STZ-55396320-12-IT2 is an E-Band high ENR noise source that delivers a typical 20 dB and 15 dB ENR with good flatness across the frequency range of 55 to 90 GHz and 90 to 96 GHz, respectively. The noise source is integrated with an Eravant miniature faraday isolator to improve the port return loss and load pull for more reliable and accurate noise figure measurements. 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.

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
RF Frequency Range		55 GHz		96 GHz
ENR	55-90 GHz		20 dB	
	90-96 GHz		15 dB	
ENR Flatness	55-90 GHz		±2 dB	
	90-96 GHz		±3 dB	
AM Modulation Trigger			TTL	
AM Modulation Rate			1 kHz	
Port Return Loss			15 dB	
DC Voltage		+15 V_{DC}	+28 V_{DC}	+30 V_{DC}
DC Current			90 mA	
Specification Temperature			+25°C	
Operating Temperature		0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Output Port	WR-12 Waveguide with UG-387/U-M Anti-Cocking Flange
Bias Port	BNC (F)
TTL Port	SMA (F)
Power Switch	Toggle
Noise Source Housing Material / Finish	Brass / Gold Plated
Isolator Housing Material / Finish	Aluminum / Gold Plated
Outline	TZ-WE-A

ECCN

EAR99

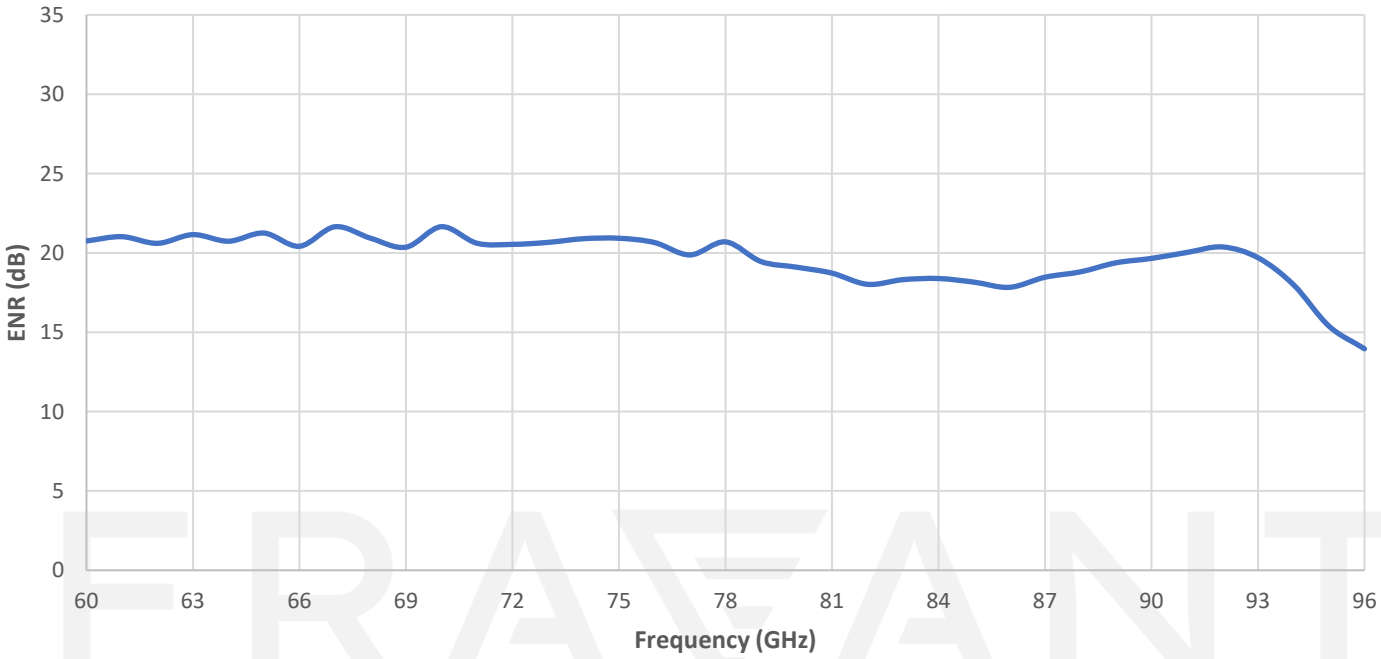
FEATURES

- Tested over 55-96 GHz Band
- TTL or Manual On/Off Switches
- CW & Pulsed AM Operation Modes
- Precision Calibrated & Flat ENR

APPLICATIONS

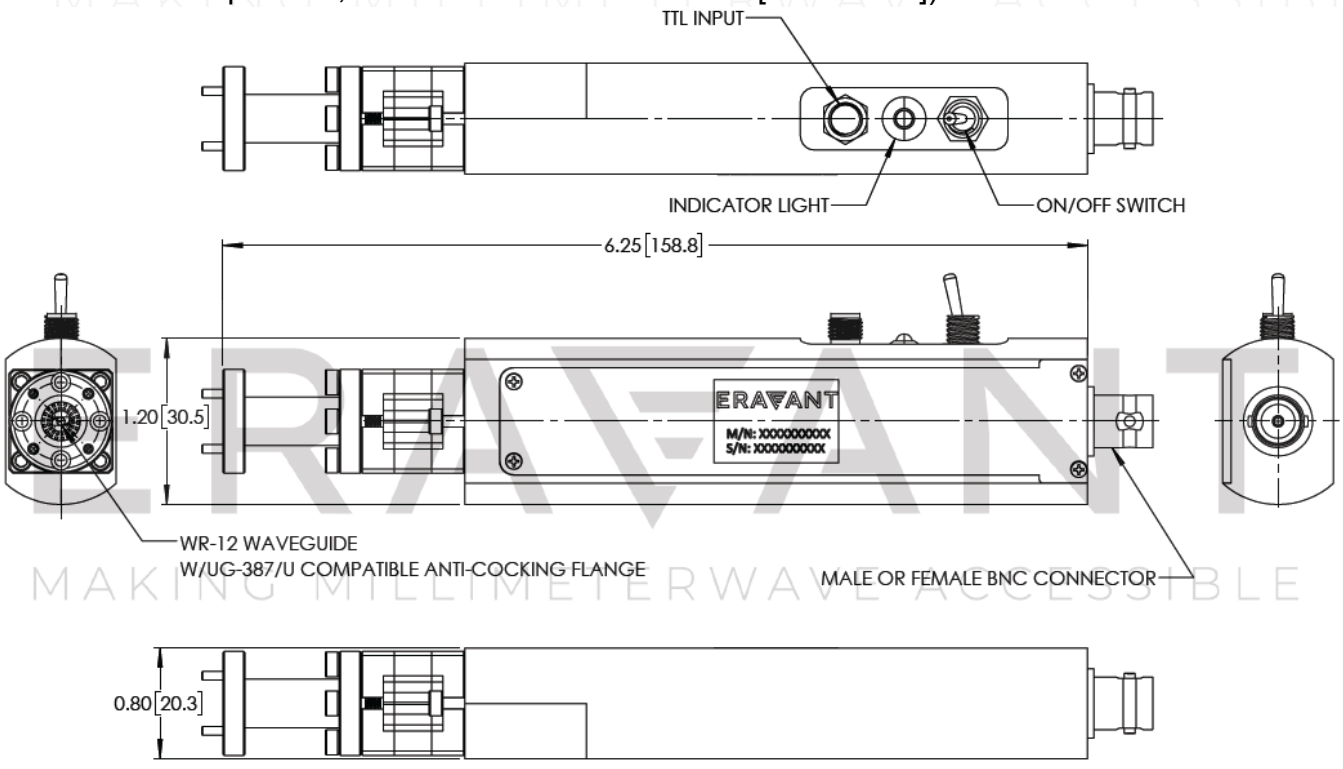
- Test Lab
- Instrumentations
- Radiometric Systems

Typical ENR vs. Frequency



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.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- 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.

Appendix: Case View with Included Components