

Full Waveguide Band, V-Band Noise Source with Isolator

STZ-15-IT2 is a V-Band noise source that delivers a 15 dB ENR across the frequency range of 50 to 75 GHz. The noise source is integrated with 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. A Calibration Certificate for ENR values will be included.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency Range	50 GHz		75 GHz
ENR		15 dB	
ENR Flatness		±2 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-15 Waveguide with UG-385/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-WV-A

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 Lab
- Instrumentations
- Radiometric Systems

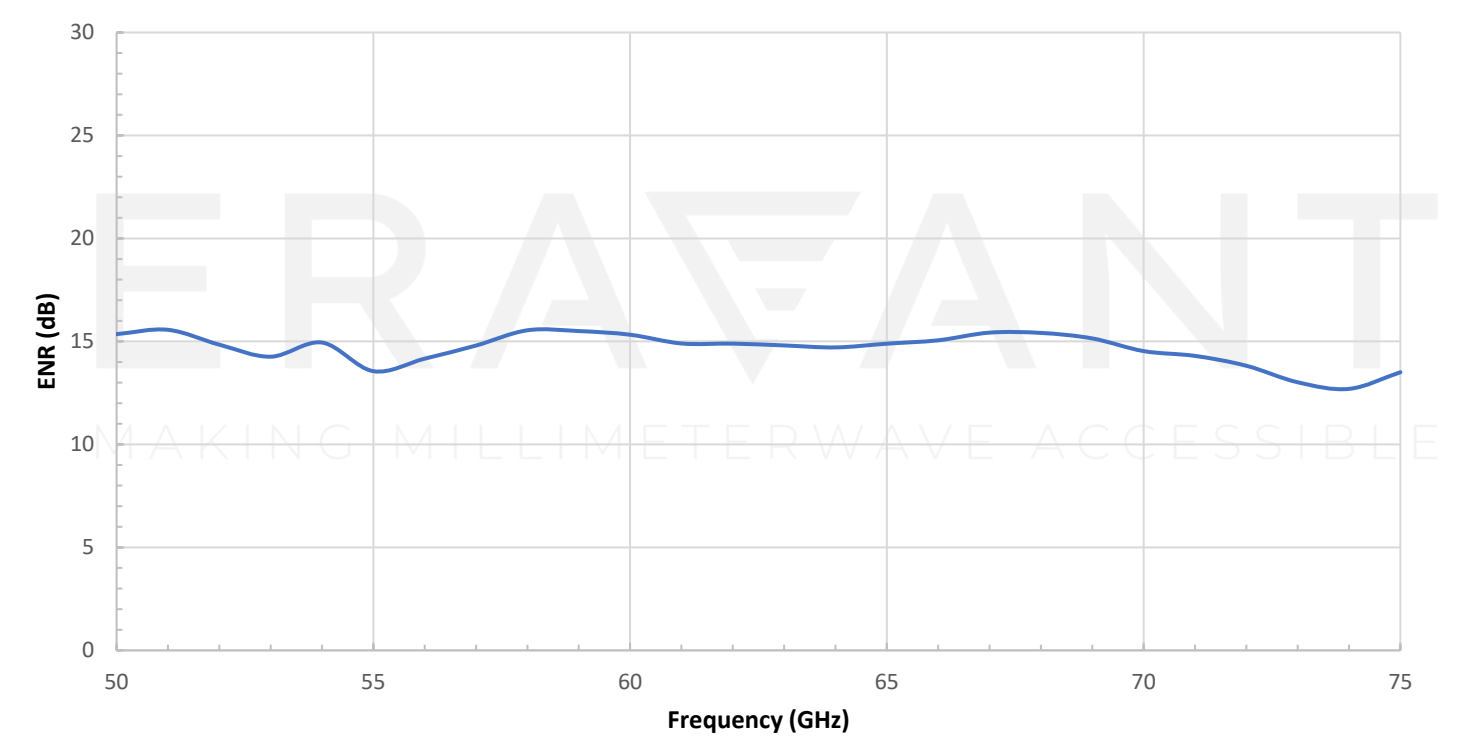


STZ-15-IT2

Included Accessory Components:

Item	Eravant Model Number	Quantity
Waveguide Screwdriver, 3/32 Hex Head	SWH-332-DS	1
Waveguide Flange Hardware Kit		1
USB Flash Drive with Calibration/Test Data		1

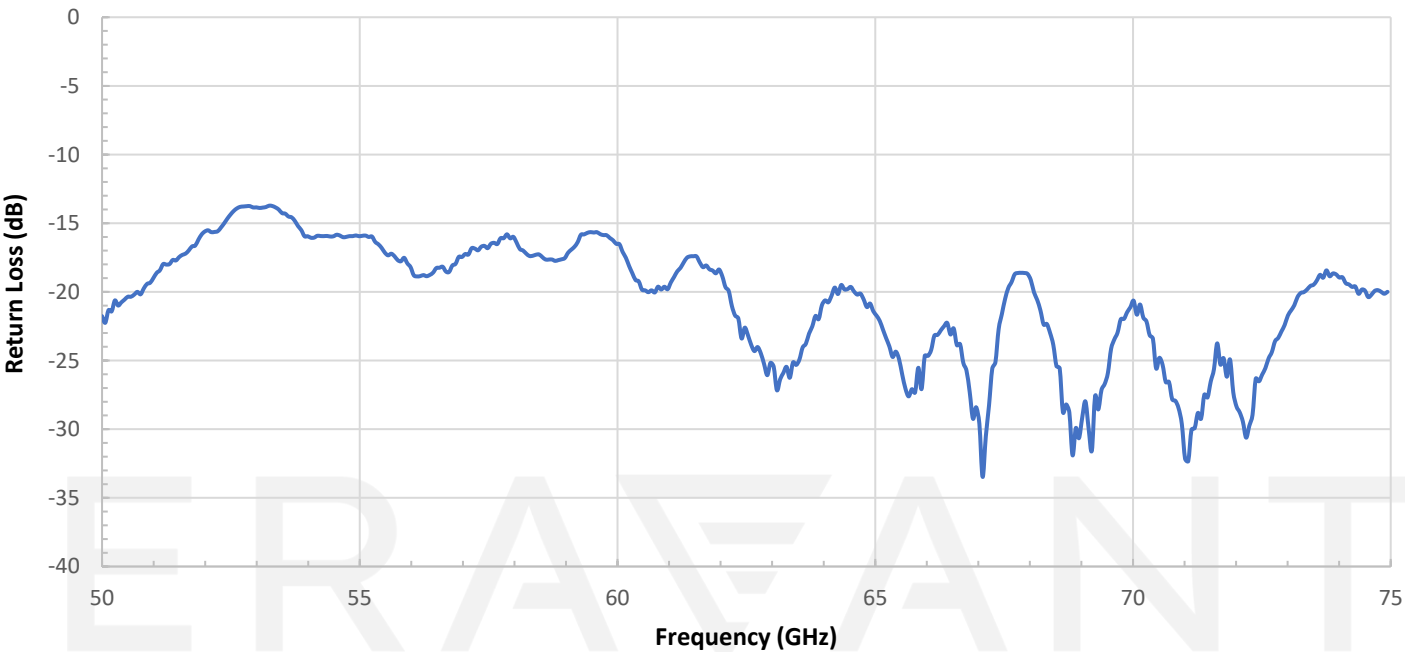
ENR vs. Frequency



STZ-15-IT2

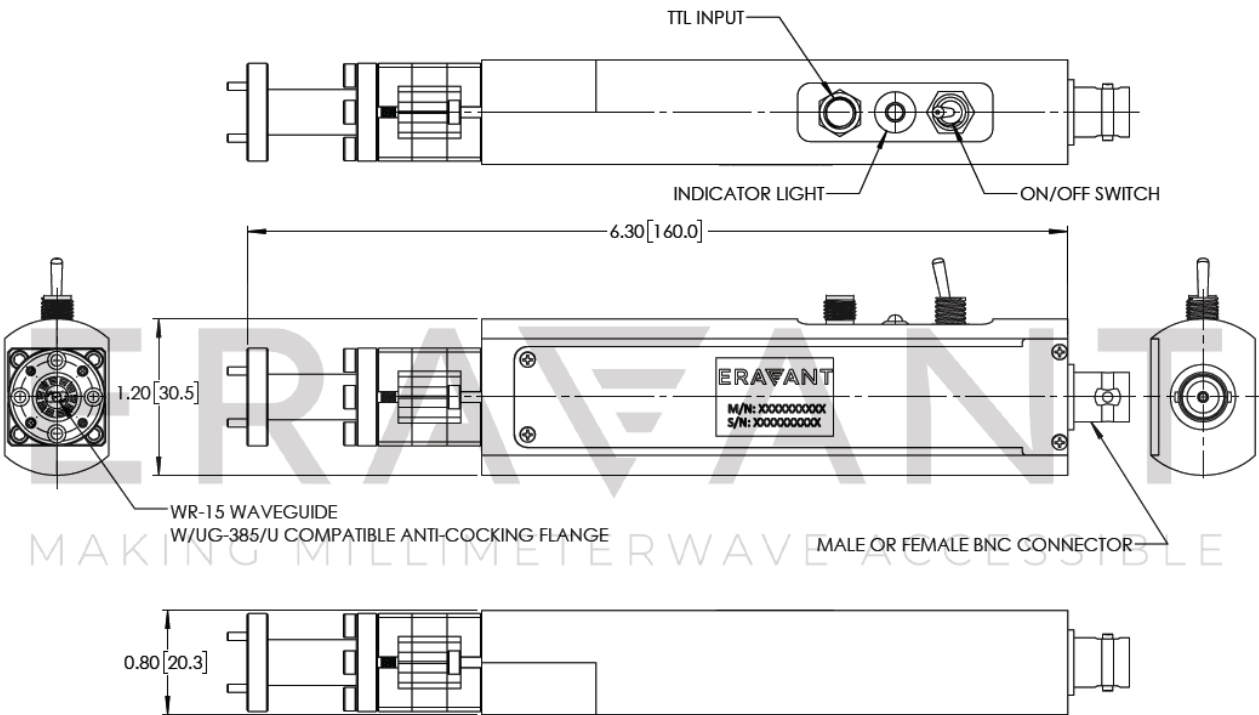
Return Loss vs. Frequency

Bias: +28Vdc/ 38mA



Mechanical Outline:

Unless otherwise specified, all dimensions are in inches [millimeters]



STZ-15-IT2

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

