

## SOL-24311-42-G1

### K-Band Volume Production Oscillator

**SOL-24311-42-G1** is a volume-production ready, K Band Gunn oscillator that utilizes a high performance GaAs Gunn diode and high Q cavity to achieve excellent phase noise and power stability. The oscillator is designed for fixed frequency applications; however, the frequency can be adjusted by  $\pm 1.0$  GHz using the self-locking set screw provided.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		24.125 GHz	
Power Output	+10 dBm	+11 dBm	
Mechanical Tuning Range	$\pm 500$ MHz	$\pm 1,000$ MHz	
Harmonic Emissions		-20 dBc	
Phase Noise @ 100 KHz Offset		-98 dBc/Hz	
Frequency Stability			-0.8 MHz/ $^{\circ}$ C
Power Output Stability			-0.2 dB/ $^{\circ}$ C
Bias Voltage		+5 V <sub>DC</sub>	+6 V <sub>DC</sub>
Bias Current		250 mA	
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	-40 $^{\circ}$ C		+85 $^{\circ}$ C

#### Mechanical Specifications:

Item	Specification
RF Port	WR-42 Waveguide with UG-595/U Flange
Cavity Material	Die Casted Zink
Finish	Chem Film
Weight	1.0 Oz
Outline	OL-K1

#### ECCN

EAR99

#### FEATURES

- Low Cost and Production Ready
- Mechanical Tuning Ability
- Low AM/FM Noise and Harmonics
- High Frequency and Power Stability

#### APPLICATIONS

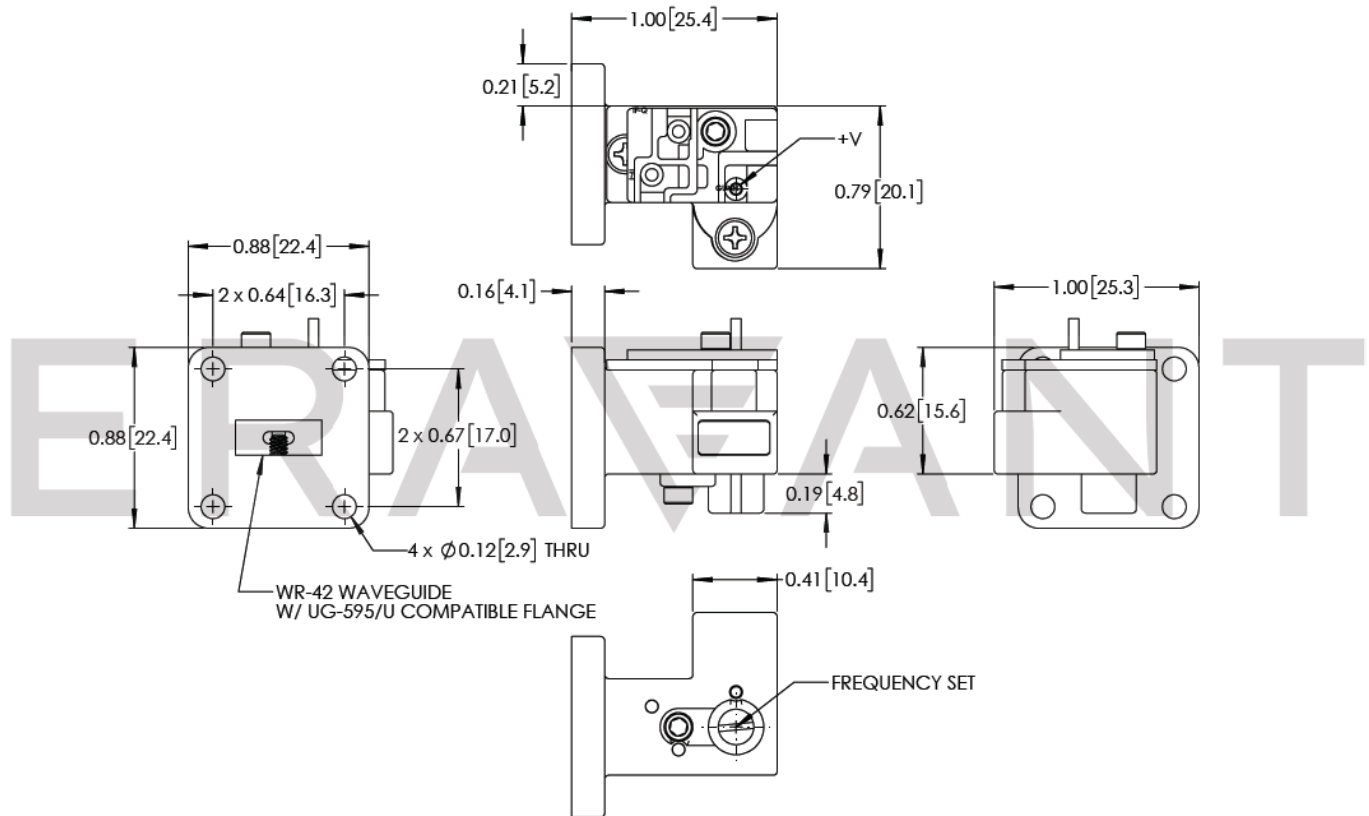
- Traffic Control Systems
- Communication Systems
- Radar Systems

#### SUPPLEMENTAL DETAILS



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



### NOTE:

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

### CAUTION:

- Reversing polarity bias will destroy the device.
- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- The case temperature of the device shall never exceed **+85°C**. Use an additional heatsink or fan if necessary.

MAKING MILLIMETERWAVE ACCESSIBLE