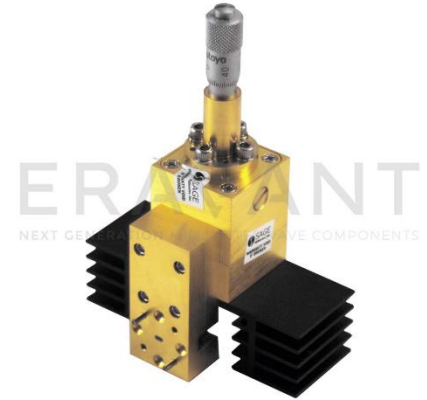


**WR-10, Wide Dual Mechanical Tuning Bandwidth Gunn Oscillator, 65 to 115 GHz**

**SOF-1000-D1-C** is a W-band, wide dual mechanical running bandwidth Gunn Oscillator that utilizes a high-performance GaAs diode to deliver 0 dBm typical power with low AM/FM noise and harmonic emissions. The oscillator has a center frequency of 90 GHz with a mechanical tuning range of  $\pm 25$  GHz. Compared to its multiplier-based counterparts, the Dual Tuned Gunn Oscillator is a lower cost alternative and a cleaner source. The Gunn Oscillator is equipped with two micrometers for quick frequency and power tuning when used as a bench-top unit. The oscillator performance can be further enhanced by adding an optional power amplifier, modulator/regulator, or linear actuators.

**Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Center Frequency		90 GHz	
Mechanical Tuning Range		$\pm 25$ GHz	
Power Output		0 dBm	
Bias Voltage	+6 V <sub>DC</sub>	+9 V <sub>DC</sub>	+12 V <sub>DC</sub>
Bias Current			1A
Specification Temperature		+25°C	
Operating Temperature	+5°C		+50°C

**ECCN**

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**FEATURES**

- Low AM/FM Noise and Harmonics
- Broad Mechanical Tuning Bandwidth
- Micrometer Tuned

**APPLICATIONS**

- Test Sources
- Signal Generation
- Lab Test Setups

**SUPPLEMENTAL DETAILS**

SOF-1000-D1-C

Mechanical Specifications:

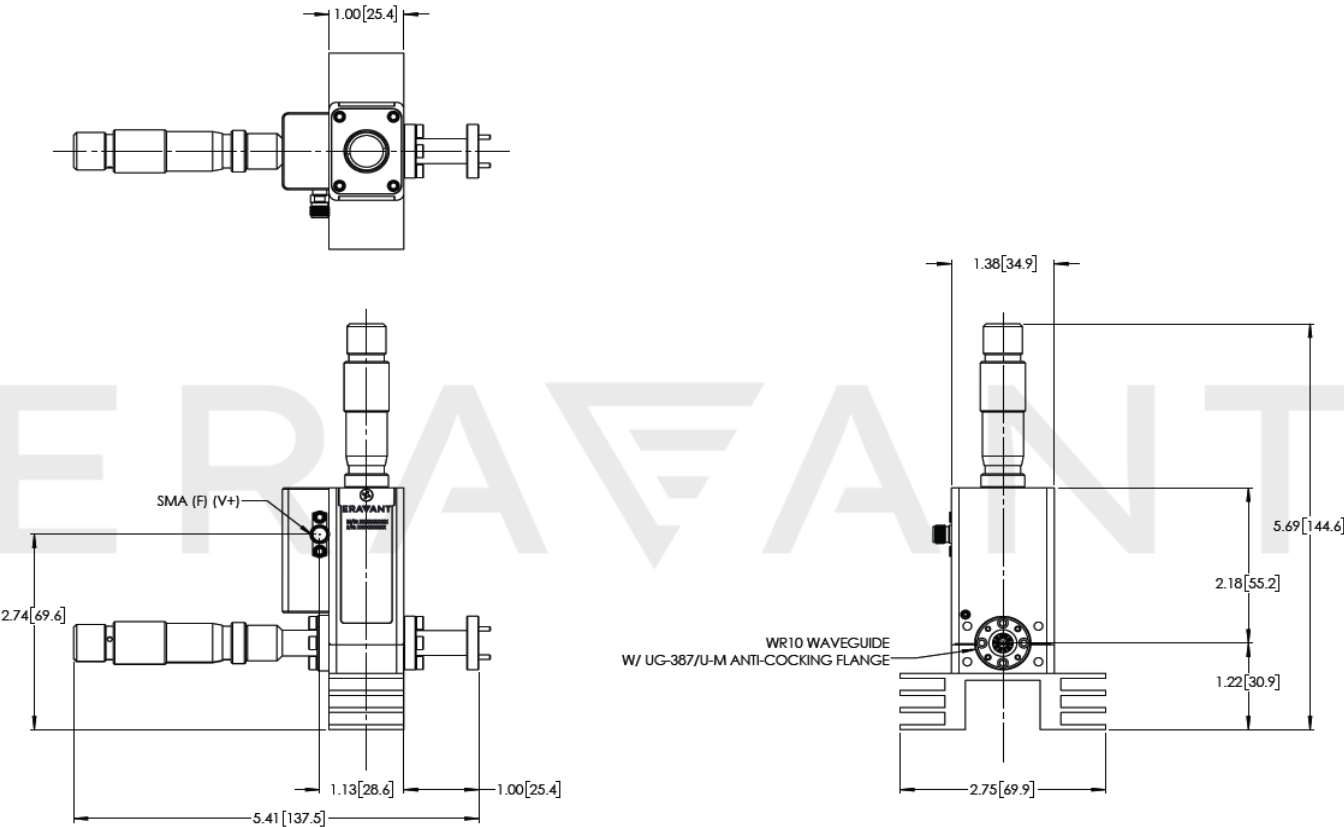
Item	Specification
RF Port	WR-10 Rectangular Waveguide with UG-387/U-M compatible anti-cocking flange
DC Bias Port	SMA (F)
Mechanical Tuning	Micrometer
Body Material	Aluminum 6061
Finish	Gold Plating and Black Anodize
Weight	1.5 lbs
Outline	OF-DW-A-C

Included Accessory Components

Item	Eravant Model Number	Quantity
Waveguide Screwdriver, 3/32 Hex Head		1
Waveguide Flange Hardware Kit		1

Mechanical Outline:

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



**NOTE:**

- The product presented in this datasheet is at a preliminary design stage. Final electrical and mechanical specifications may differ than what is presented.
- The datasheet product photo used is not representative of the final product.
- All data presented is collected from a sample lot, actual data may vary slightly from unit to unit.
- The data given above was tested under case temperature **35°C**.
- Always set the micrometer reading to approximately 100.0 GHz when turning on the oscillator to avoid wrong mode operation.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- Reversing polarity will destroy the device.
- Bias voltage should never exceed **+12V**.
- The case temperature of the device should never exceed **+50°C**. Use an additional heatsink or fan if necessary.
- Proper torque, 8.0±0.15 inch-pounds (0.92±0.05Nm), should be applied.  
**Eravant torque wrench SCH-08008-S1, is highly recommended.**
- Exceeding absolute maximum ratings shown will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device. When not in use, use a dust cover on the waveguide port to prevent the ingress of dust and particles into the waveguide.