

## K-Band Phase Locked Oscillator, 24.5 GHz, Internally Referenced

### Description:

**Model SOP-25310113-KF-I1** is a phase locked oscillator with a typical output frequency of 24.5 GHz and a nominal output power of +13 dBm. The PLO is internally referenced. The low phase noise of the oscillator is attributed to the quality of the internal reference source. The oscillator has a typical harmonic suppression of -25 dBc and spurious of -75 dBc with a phase noise of -104 dBc/Hz at 10 KHz offset.



### Features:

- High Output Power
- Low Phase Noise
- Low Harmonic Components

### Applications:

- Radar Systems
- Communication Links
- Transmitters and Receivers

### Electrical Specifications:

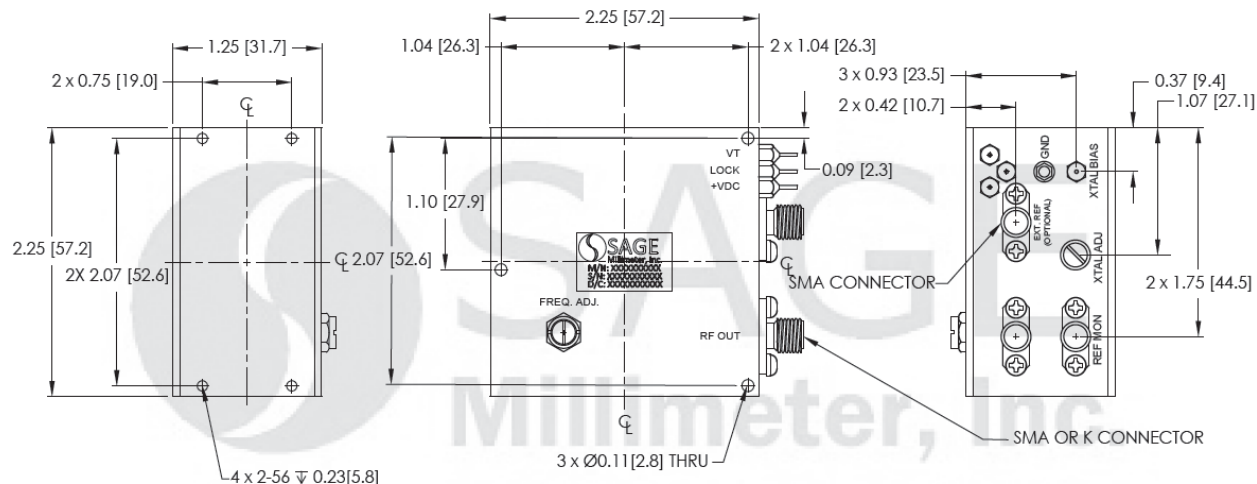
Parameter	Minimum	Typical	Maximum
Frequency		24.5 GHz	
Output Power		+13 dBm	
Phase Noise (Internally Referenced) @ 10 kHz		-104 dBc/Hz	
Harmonic Suppression		-25 dBc	
Spurious		-75 dBc	
DC Voltage Supply		+12 Vdc	
Frequency Stability (Internally Referenced)		±5 ppm	
Operating Temperature	0°C		+50°C

### Mechanical Specifications:

Item	Specification
Output	K (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Nickel Plated
Weight	4 Oz (Excluding the Heatsink)
Size	2.25" (W) 2.25" (L) X 1.25" (H)
Outline	OP-DC-E3

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



**Note:**

- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

**Caution:**

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- The case temperature of the device shall never exceed **+50°C**. Use additional heatsink or fan if necessary.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

