



Phase Locked Oscillator, 32.0 GHz, +13 dBm, Internally Referenced

Description:

Model SOP-32310113-KF-I1 is a 32.0 GHz phase locked oscillator that utilizes state-of-art planar circuits, high performance three terminal devices and dielectric resonator technology to generate a super-quiet microwave signal. The signal is phase locked to a high quality, 100 MHz internally referenced crystal oscillator to deliver superior phase noise performance. The oscillator delivers a typical output power of +13 dBm and has a nominal harmonic of -25 dBc and spurious of -75 dBc with a low phase noise of -104 dBc/Hz at 10 kHz offset. The oscillator has a built-in voltage regulator to further improve the signal quality and provide the over voltage protection.



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		32.0 GHz	
Output Power		+13 dBm	
Phase Noise (Internally Referenced) @ 10 kHz		-104 dBc/Hz	
Harmonic		-25 dBc	
Spurious		-75 dBc	
Phase Locked Indicator	TTL "High"		
DC Voltage Supply	+12 Vdc		+15 Vdc
DC Current Supply		300 mA	
Frequency Stability (Internally Referenced)		±5 ppm	
Specification Temperature		+25 °C	
Operating Temperature	-0 °C		+50 °C

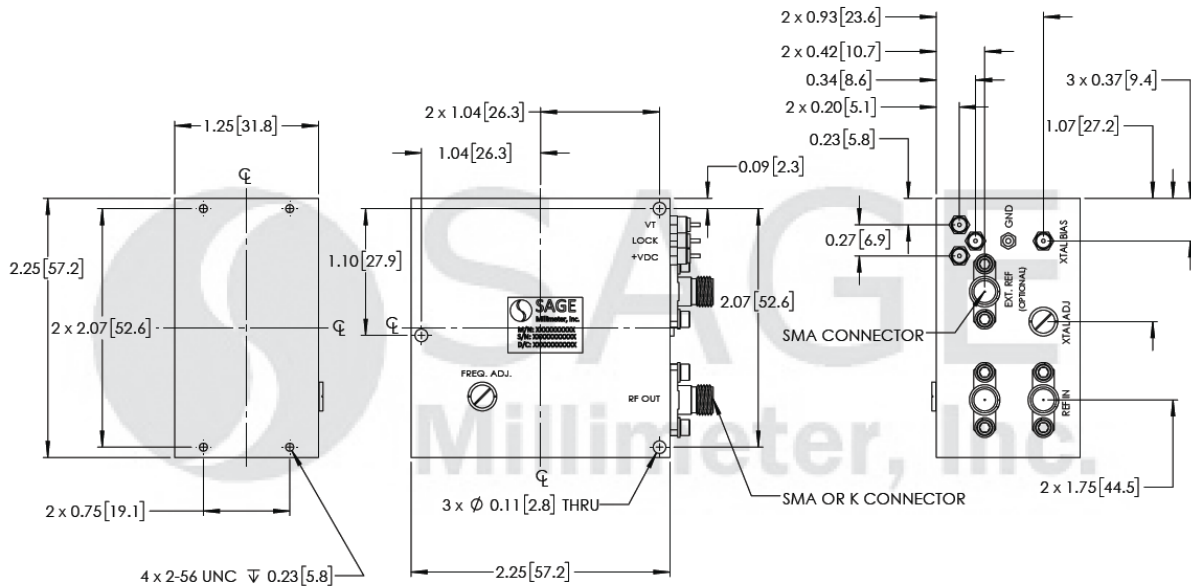
Mechanical Specifications:

Item	Specification
RF Output	K (F) Connector
REF Output	K (F) Connector
DC Bias Port	Solder Pin
Phase Lock Indicator Port	Feedthru Pin
Case Material	Aluminum
Finish	Nickel Plated
Weight	4 Oz
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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

