SOP-22301120-SF-I2

Advanced

Phase Locked Oscillator, 22.35 GHz, +20 dBm, Internally Referenced

Description:

Model SOP-22301120-SF-I2 is a 22.35 GHz phase locked oscillator that utilizes state-of-art planar circuits, a 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, 10 MHz internally referenced crystal oscillator to deliver superior phase noise performance. The PLO delivers a typical output power of +20 dBm and has a nominal harmonic of -25 dBc and spurious of -70 dBc with a low phase noise of -100 dBc/Hz at 1 kHz offset. The oscillator is provided with phase lock loop status indicator (TTL high: Locked) and phase loop healthy indicator (phase error). The externally referenced version is offered under model number SOP-22301120-SF-E2.

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		22.35 GHz	
Output Power		+20 dBm	
Phase Noise (Internally Referenced) @ 10 kHz		-100 dBc/Hz	
Harmonic		-25 dBc	
Spurious		-70 dBc	
Phase Lock Indicator (Lock)		TTL High	
DC Voltage Supply		+12 Vdc/450 mA	
Frequency Stability (Internally Referenced)		±5 ppm	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
RF Output	SMA (F) Connector
REF Output	SMA (F) Connector
DC Bias, Lock and VT Ports	Solder Pins
Case Material	Aluminum
Finish	Nickel Plated
Weight	4 Oz
Size	2.25” (W) 2.25” (L) X 1.25” (H)
Outline	OP-DC-E3

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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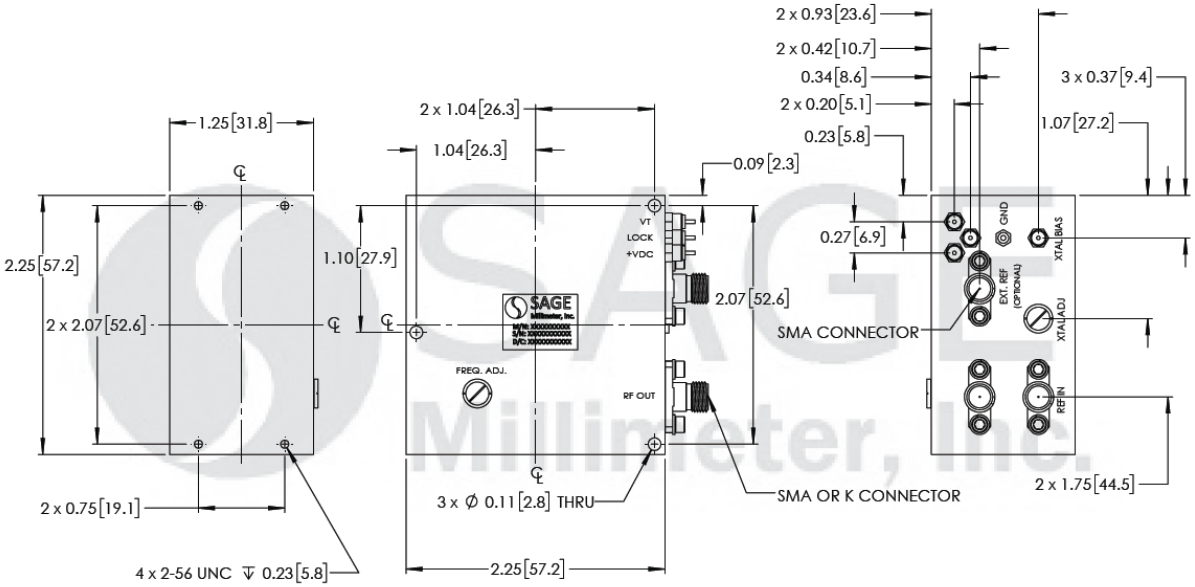
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.**

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