SOP-10310114-SFSF-I2

Advanced

Phase Locked Oscillator, 10.3 GHz, +14 dBm, Internally Referenced

Description:

Model SOP-10310114-SFSF-I2 is a 10.3 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, 100 MHz internally referenced crystal oscillator to deliver superior phase noise performance. The oscillator delivers a typical output power of +14 dBm and has a nominal harmonic of -25 dBc and spurious of -70 dBc with a low phase noise of -110 dBc/Hz at 1 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		10.3 GHz	
Output Power		+14 dBm	
Phase Noise (Internally Referenced) @ 1 kHz		-110 dBc/Hz	
Harmonic		-25 dBc	
Spurious		-70 dBc	
Phase Locked Indicator	TTL “High”		
DC Voltage Supply	+12 V		+15 V
DC Current Supply		450 mA	
Frequency Stability (Internally Referenced)		±5 ppm	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+70 ˚C

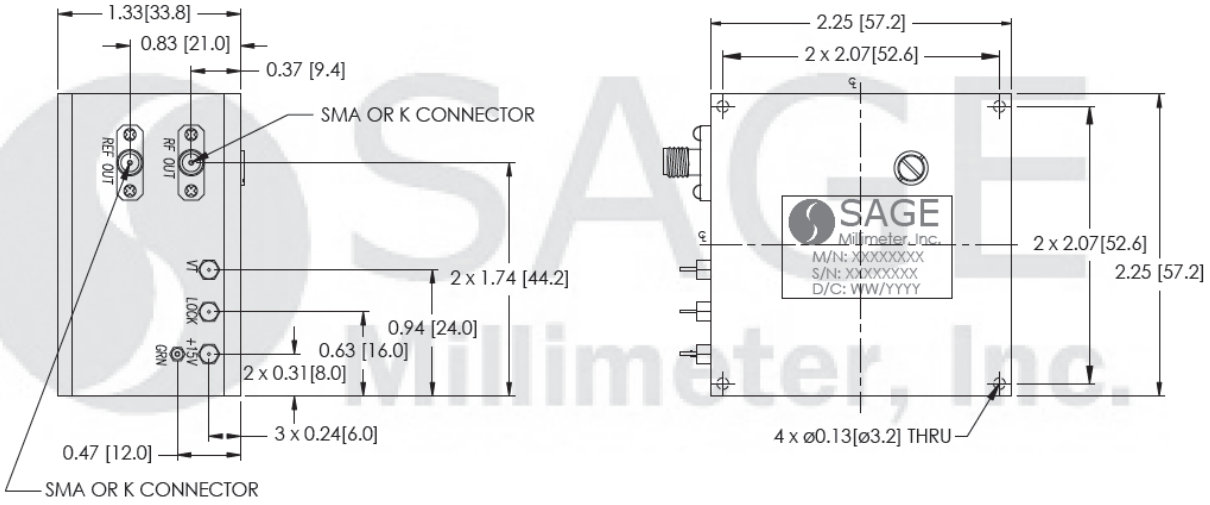
Mechanical Specifications:

Item	Specification
RF Output	SMA(F) Connector
REF Output	SMA(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 1.33” (H)
Outline	OP-E6-P3

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

Phase Locked Oscillator, 10.3 GHz, +14 dBm, Internally Referenced

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 **+70 ˚C**. Use additional heatsink or fan if necessary.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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