SOP-13305115-SF-E1

Advanced

Phase Locked Oscillator, 12.62 GHz, +15 dBm, Externally Referenced

Description:

Model SOP-13305115-SF-E1 is a phase locked oscillator with a typical output frequency of 12.62 GHz and a nominal output power of +15 dBm. The PLO is externally referenced. The oscillator is phase locked to external reference with a frequency of 50 MHz and typical power of 0 dBm. The phase noise of the externally referenced oscillator is dependent on the quality of the reference source. The oscillator has a typical harmonic suppression of -20 dBc and spurious of -80 dBc. The phase locked oscillator also offers phase error voltage and phase locking alarm for phase lock loop healthy and status monitoring. Other configurations, such as internal referenced or internal/external referenced are offered under different models.

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		12.62 GHz	
Output Power		+15 dBm	
Phase Noise	Reference Source + 20 Log (N) + 3 dB		
External Reference Frequency		50 MHz	
External Reference Input Power	-3 dBm	+0 dBm	+3 dBm
Harmonic Suppression		-20 dBc	
Spurious		-80 dBc	
DC Voltage		+10 V_{DC}	
DC Supply Current		270 mA	
Frequency Stability (Externally Referenced)*	Same as reference		
Power Stability		±1 dB	
Specification Temperature		+25 °C	
Operating Temperature	0 ˚C		+50 ˚C

*To achieve low phase noise, high performance reference source, such as crystal oscillator is recommended.

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
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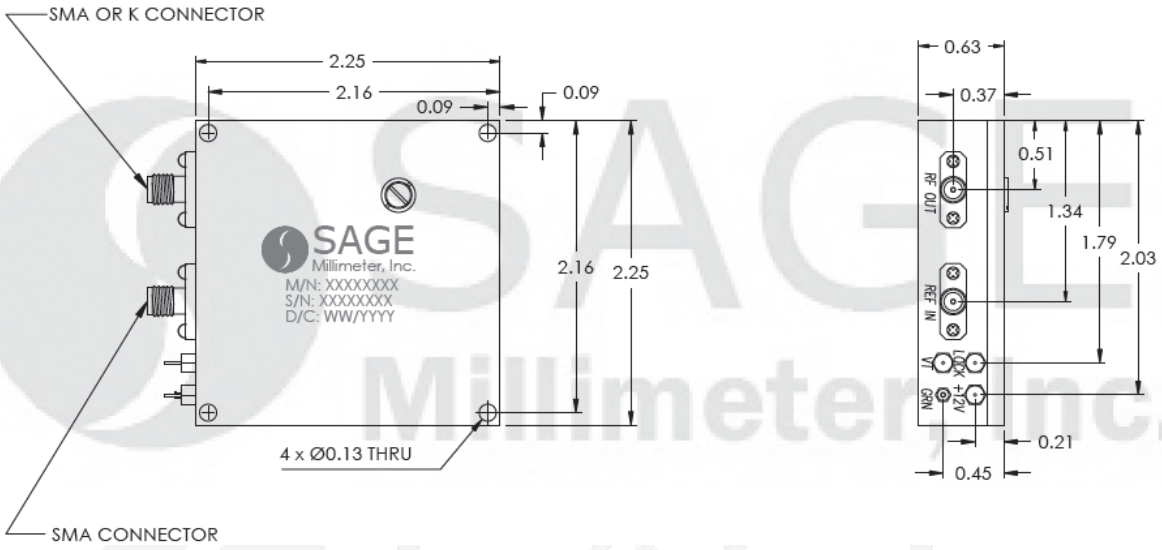
Mechanical Specifications:

Item	Specification
RF Output Port	SMA(F)
REF Input Port	SMA(F)
Bias Port	Solder Pin
Phase Error Port	Solder Pin
Alarm Port	Solder Pin
Case Material	Aluminum
Finish	Nickel Plated
Weight	4 Oz
Size	2.25” (L) X 2.25” (W) X 0.63” (H)
Outline	OP-EC-P1H

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 (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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