SOP-11301115-SF-E2

Advanced

Phase Locked Oscillator, 10.5 GHz, +15 dBm, Externally Referenced

Description:

Model SOP-11301115-SF-E2 is a phase locked oscillator with a typical output frequency of 10.5 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 10 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		10.5 GHz	
Output Power	+13 dBm	+15 dBm	
Phase Noise	Reference Source + 20 Log (N) + 3 dB		
External Reference Frequency		10 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.

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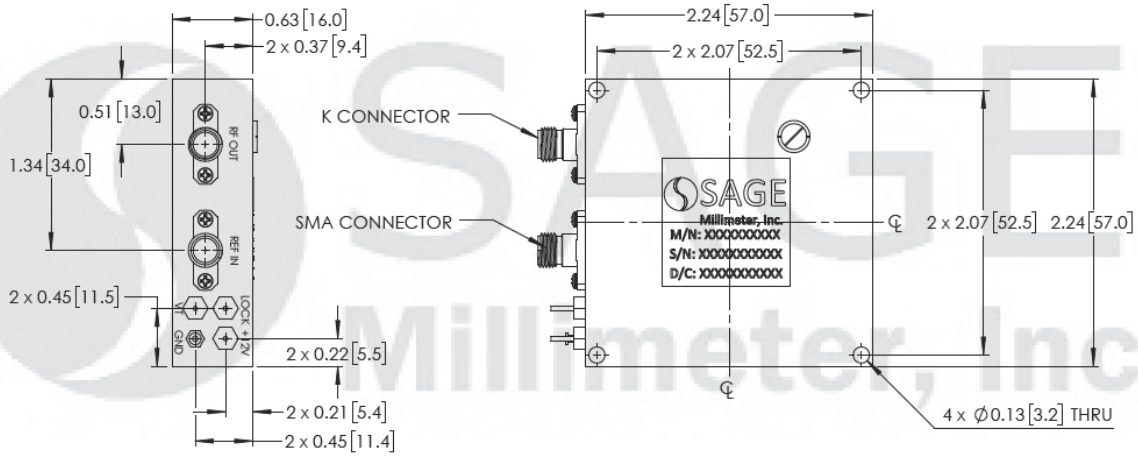
Mechanical Specifications:

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	2.24” (L) X 2.24” (W) X 0.63” (H)
Outline	OP-EC-P1H

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



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.**