SOP-35301113-KF-E1

Phase Locked Oscillator, 35 GHz, Externally Referenced

Description:

Model SOP-35301113-KF-E1 is a phase locked oscillator with a typical frequency of 35 GHz and a typical output power of +13 dBm. The phase noise is proportional to the phase noise of the external reference specified in the electrical specifications below. The oscillator has a typical harmonic suppression of -25 dBc and spurious of -75 dBc. The oscillator requires a 10 MHz reference at +0 dBm typical. The power supply is +12 V_{DC}/400 mA.

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		35 GHz	
Output Power		+13 dBm	
Phase Noise (Externally Referenced)		Reference Noise + 20*log(N) + 3 dB	
Harmonic Suppression		-25 dBc	
Spurious		-75 dBc	
External Reference Frequency		10 MHz	
External Reference Input Power		+0 dBm	
DC Voltage		+12 V_{DC}	
DC Supply Current		400 mA	
Frequency Stability (Externally Referenced)		Same as Reference	
Phase Lock Loop Status (Locked)		TTL High	
Specification Temperature		+25 ˚C	
Operating Temperature	0˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
RF Connector	K (F)
DC Bias	Solder Pin
Reference In Port	SMA (F)
Size	1.33” (W) 2.25” (L) X 2.25” (H)
Case Material	Aluminum
Phase Lock Indication	Solder Pin
Phase Error Voltage	Solder Pin
Finish	Nickel Plated
Outline	OP-E6-P3

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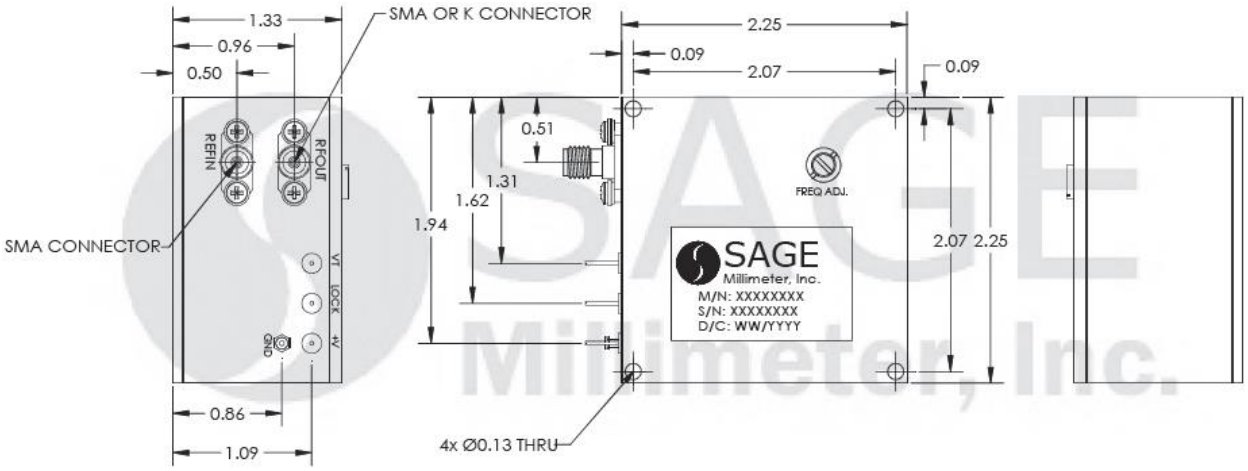
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



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 ± 0.4 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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