



Phase Locked Oscillator, Externally Referenced, 18 GHz, +10 dBm

Description:

Model SOP-18301210-SF-E1 is a phase locked oscillator with a typical output frequency of 18 GHz and a nominal output power of +10 dBm. The PLO is externally referenced. The oscillator is phase locked to external reference with a frequency of 100 MHz and typical power of 0 dBm. The phase noise of the oscillator is dependent on the quality of the reference source. The oscillator has a minimum harmonic suppression of -25 dBc and spurious of -75 dBc.



Features:

- High Output Power
- Low Phase Noise
- Low Harmonic Components
- Externally Referenced

Applications:

- Radar Systems
- Communication Links
- Transmitters and Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency		18 GHz	
Output Power		+10 dBm	
Phase Noise	Reference Source + 20 Log (N) + 3 dB		
Harmonic Suppression		-25 dBc	
Spurious		-75 dBc	
External Reference Frequency		100 MHz	
External Reference Input Power		+0 dBm	
DC Voltage	+12 V _{DC}		+15 V _{DC}
DC Supply Current		250 mA	
Frequency Stability (Externally Referenced)	Same as reference		
Frequency Stability (Internally Referenced)		±5 ppm	
Power Stability		±1 dB	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

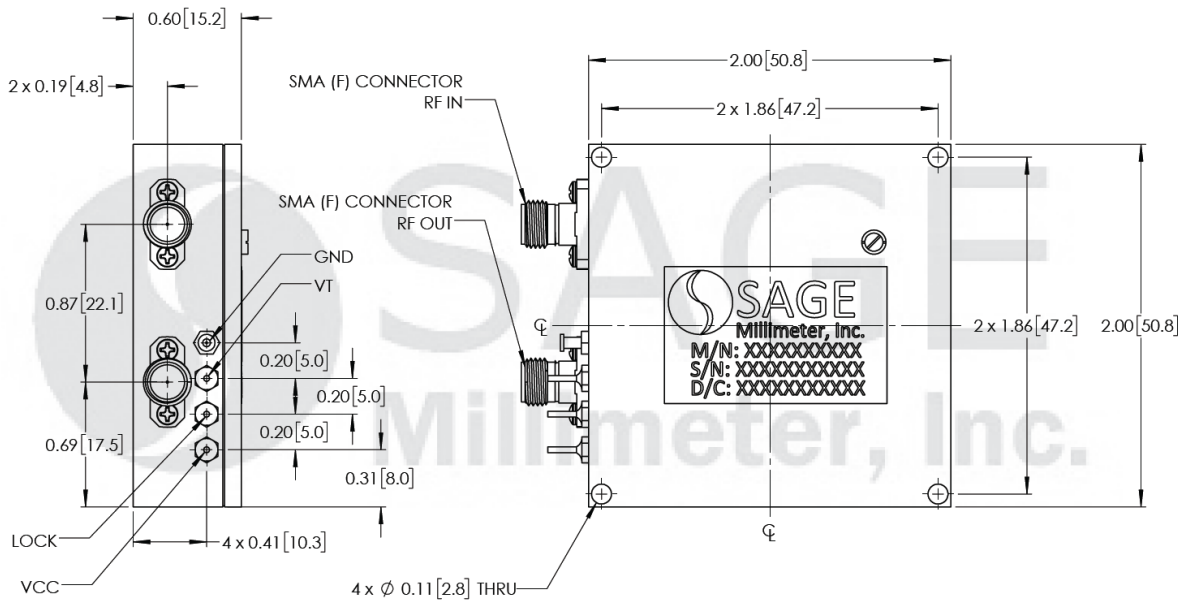
Item	Specification
RF Output Connector	SMA(F)
REF Input Connector	SMA(F)
Bias	Solder Pin
Size	2.0" (W) X 2.0" (L) X 0.6" (H)
Case Material	Aluminum
Finish	Nickel Plated
Weight	4 Oz
Outline	OP-EC-NW2





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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 number.

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.**

