



Dielectric Resonator Oscillator, 24 GHz, +15 dBm

Description:

Model **SOD-24301215-SF-S1** is a mechanically tuned, dielectric resonator oscillator with a center frequency of 24 GHz and a mechanical tuning range of ± 50 MHz. The oscillator delivers a nominal output power of +15 dBm with a low phase noise and harmonic emissions. The oscillator takes a +12 V_{DC}/125 mA DC bias. The RF output is equipped with a female SMA connector.



Features:

- Low AM/FM Noise and Harmonics
- Mechanically Tunable

Applications:

- Test Sources
- Signal Generation
- Lab Test Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		24 GHz	
Power Output		+15 dBm	
Mechanical Tuning Range		± 50 MHz	
Frequency Stability			± 5 ppm/ $^{\circ}$ C
Phase Noise @ 10 KHz Offset		-80 dBc/Hz	
Spurious			-65 dBc
Harmonics			-10 dBc
Frequency Stability			± 5 ppm/ $^{\circ}$ C
Bias Voltage	+10 V _{DC}	+12 V _{DC}	+15 V _{DC}
Bias Current		125 mA	400 mA
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	0 $^{\circ}$ C		+50 $^{\circ}$ C

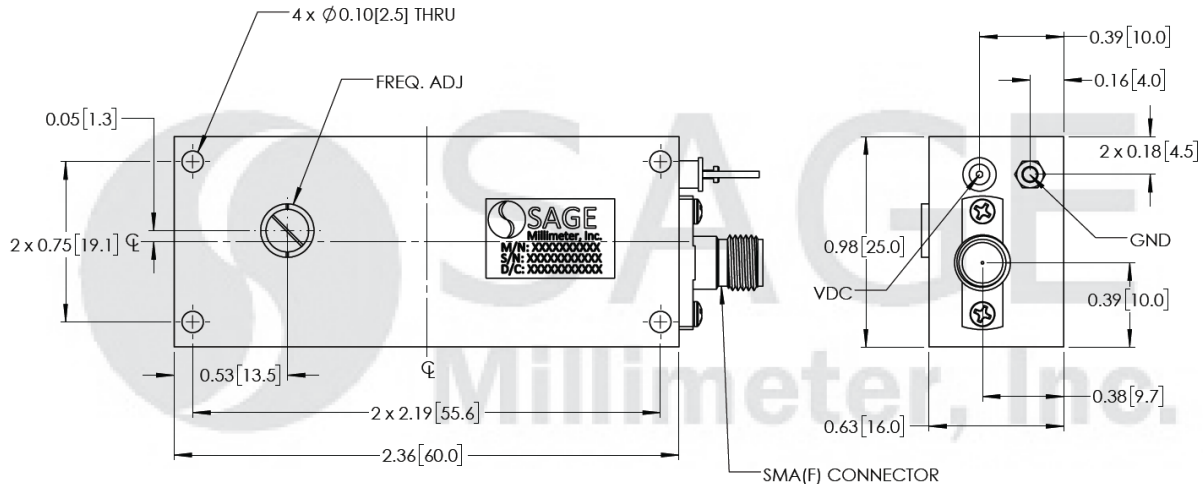
Mechanical Specifications:

Item	Specification
RF Port	SMA (F)
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	4 Oz
Outline	OD-FCK-NW1



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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 numbers.

Caution:

- Reversing polarity bias will destroy the device.
- 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.**

