



Dielectric Resonator Oscillator, 5 GHz, +18 dBm

Description:

Model **SOD-05301118-SF-S4** is a mechanically tuned, dielectric resonator oscillator with a center frequency of 5 GHz and a mechanical tuning range of ± 5 MHz. The oscillator delivers a nominal output power of +18 dBm with a low phase noise and harmonic emissions. The oscillator takes a +12 V_{DC}/200 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		5 GHz	
Power Output		+18 dBm	
Mechanical Tuning Range		± 5 MHz	
Frequency Stability			± 5 ppm/ $^{\circ}$ C
Phase Noise @ 100 KHz Offset		-90 dBc/Hz	
Spurious			-70 dBc
Harmonics			-20 dBc
Bias Voltage		+12 V _{DC}	
Bias Current		200 mA	
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	0 $^{\circ}$ C		+50 $^{\circ}$ C

Mechanical Specifications:

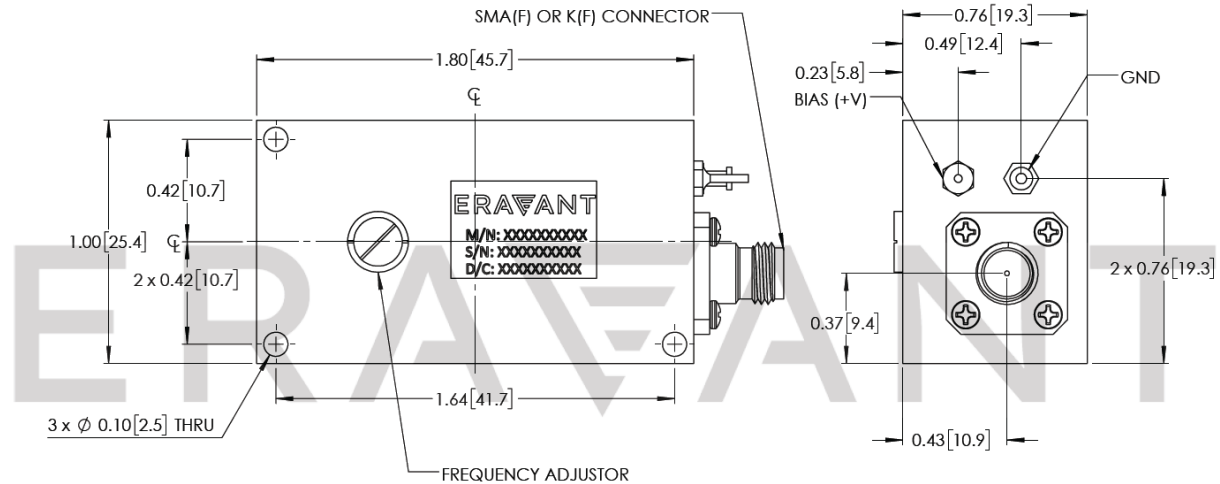
Item	Specification
RF Port	SMA (F)
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	4 Oz
Size	1.61" (L) x 0.98" (W) x 0.71" (H)
Outline	OD-FSX-NW1





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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.**

