



## Dielectric Resonator Oscillator, 22 GHz, +15 dBm

### Description:

Model **SOD-22301215-SF-S1** is a mechanically tuned, dielectric resonator oscillator with a center frequency of 22 GHz and a mechanical tuning range of  $\pm 50$  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<sub>DC</sub>/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		22 GHz	
Power Output		+15 dBm	
Mechanical Tuning Range		$\pm 50$ MHz	
Frequency Stability			$\pm 5$ ppm/ $^{\circ}$ C
Phase Noise @ 10 KHz Offset		-85 dBc/Hz	
Spurious			-65 dBc
Harmonics			-20 dBc
Bias Voltage	+10 V <sub>DC</sub>	+12 V <sub>DC</sub>	+15 V <sub>DC</sub>
Bias Current		125 mA	
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	0 $^{\circ}$ C		+5 0 $^{\circ}$ C

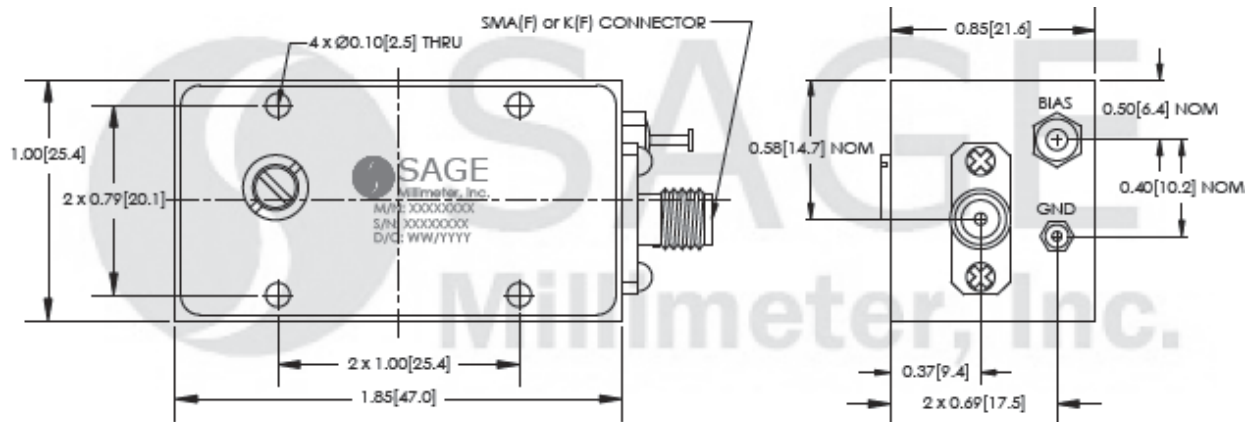
### Mechanical Specifications:

Item	Specification
RF Port	SMA (F)
DC Bias	Solder Pin
Finish	Chem Film
Weight	4 Oz
Size	1.85" (L) x 1.00" (W) x 0.85" (H)
Outline	OD-FCK-P1



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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,  $8.0 \pm 0.15$  inch-pounds ( $0.92 \pm 0.05$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

