



Dielectric Resonator Oscillator, 10 GHz, +14 dBm

Description:

Model **SOD-10302114-SF-S4** is a mechanically tuned, dielectric resonator oscillator with a center frequency of 10 GHz and a typical mechanical tuning range of ± 10 MHz. The oscillator delivers a typical output power of +14 dBm with a low phase noise and harmonic emissions. The oscillator takes a +8 V_{DC}/40 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		10 GHz	
Power Output		+14 dBm	
Mechanical Tuning Range		± 10 MHz	
Frequency Stability			± 7 ppm/ $^{\circ}$ C
Phase Noise @ 100 KHz Offset		-70 dBc/Hz	
Spurious			-80 dBc
Harmonics			-20 dBc
Bias Voltage		+8 V _{DC}	
Bias Current		40 mA	150 mA
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	0 $^{\circ}$ C		+50 $^{\circ}$ C

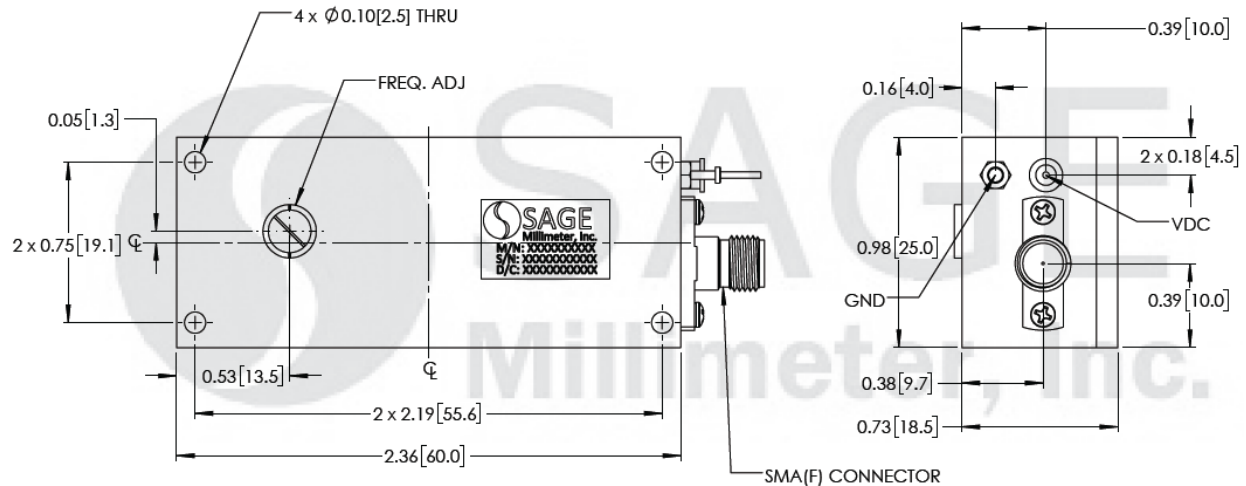
Mechanical Specifications:

Item	Specification
RF Port	SMA Female
DC Bias	Solder Pin
Finish	Aluminum
Weight	4 Oz
Size	2.36" (L) x 0.98" (W) x 0.63" (H)
Outline	OD-FCK-NW1



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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:

- 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.**

