



Dielectric Resonator Oscillator, 37 GHz, +13 dBm

Description:

Model SOD-37301213-KF-S4 is a mechanically tuned, dielectric resonator oscillator with a center frequency of 37 GHz and a mechanical tuning range of ± 50 MHz. The oscillator delivers a nominal output power of +13 dBm with a low phase noise and harmonic emissions. The oscillator takes a +8 V_{DC}/500 mA DC bias. The RF output is equipped with K(F) connector. Other versions with WG-28 or WR-22 are also available under the models **SOD-37301213-28-S1** and **SOD-37301213-22-S1**, respectively.



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		37 GHz	
Power Output		+13 dBm	
Mechanical Tuning Range		± 50 MHz	
Frequency Stability			± 4 ppm
Phase Noise @ 100 kHz Offset		-90 dBc/Hz	
Spurious			-60 dBc
Harmonics			-25 dBc
Bias Voltage	+6 V _{DC}	+8 V _{DC}	+12 V _{DC}
Bias Current		500 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

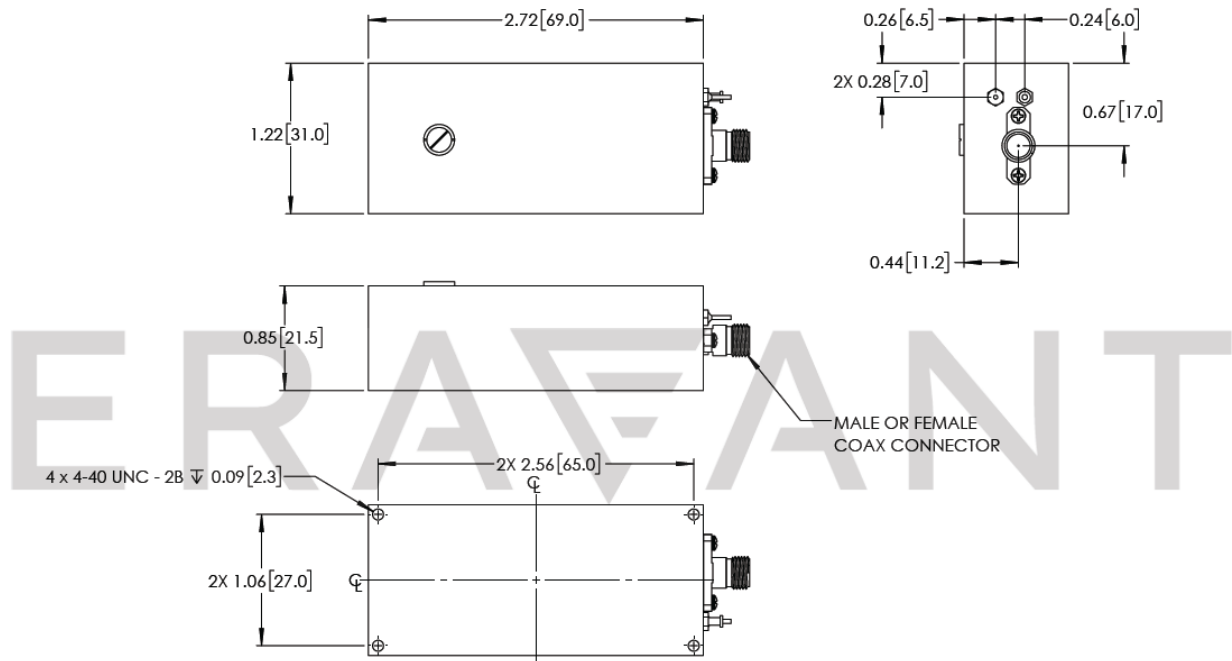
Item	Specification
RF Port	K(F) Coax Connector
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	4 Oz
Size	2.71" (L) x 1.22" (W) x 0.85" (H)
Outline	OD-FCQ-NW1





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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.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- 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.**

