SOD-28305120-KF-S4

Dielectric Resonator Oscillator, 27.67 GHz, +20 dBm

SOD-28305120-KF-S4 is a mechanically tuned, dielectric resonator oscillator with a center frequency of 27.67 GHz and a mechanical tuning range of ±25 MHz. The oscillator delivers a nominal output power of +20 dBm with a low phase noise and harmonic emissions. The oscillator takes a +8 V_{DC}/700 mA DC bias. The RF output is equipped with a female 2.92 mm (K) connector.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		27.67 GHz	
Power Output		+20 dBm	
Mechanical Tuning Range		±25 MHz	
Frequency Stability			±5 ppm/°C
Phase Noise @ 100 KHz Offset		-100 dBc/Hz	
Spurious			-75 dBc
Harmonics			-20 dBc
Bias Voltage		+8 V_{DC}	
Bias Current			700 mA
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
RF Port	2.92 mm (K) Female
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	2.2 Oz
Size	2.36” (L) x 0.98” (W) x 0.71” (H)
Outline	OD-FCA-NW1

ECCN

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FEATURES

- Low AM/FM Noise and Harmonics
- Wide Mechanically Tuning Bandwidth

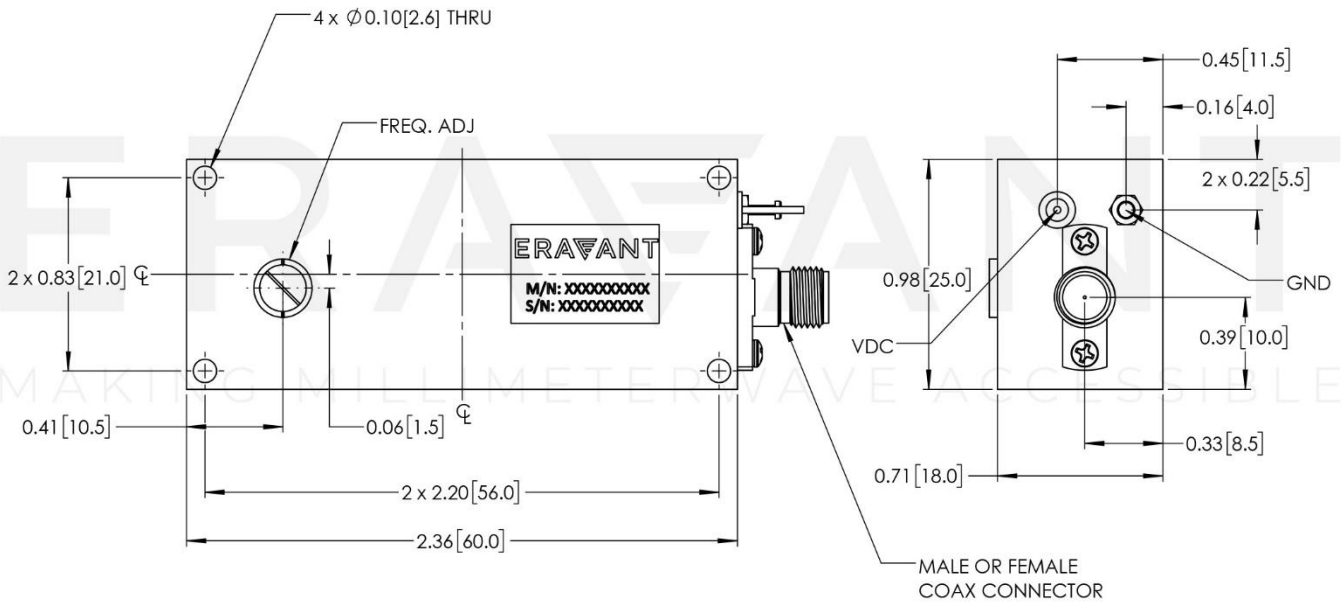
APPLICATIONS

- Test Sources
- Signal Generation
- Lab Test Setups

SUPPLEMENTAL DETAILS

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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



NOTE:

- Eravant 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.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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