

SOD-22301215-SF-S4-2

Dielectric Resonator Oscillator, 22.4 GHz, +15 dBm

SOD-22301215-SF-S4-2 is a mechanically tuned, dielectric resonator oscillator with a center frequency of 22.4 GHz and a mechanical tuning range of ± 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_{DC}/380 mA DC bias. The RF output is equipped with a female SMA connector.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		22.4 GHz	
Power Output		+15 dBm	
Mechanical Tuning Range		± 50 MHz	
Frequency Stability			± 5 ppm/ $^{\circ}$ C
Phase Noise @ 100 KHz Offset		-85 dBc/Hz	
Spurious			-70 dBc
Harmonics			-20 dBc
Bias Voltage	+10 V _{DC}	+12 V _{DC}	+15 V _{DC}
Bias Current		380 mA	
Specification Temperature		+25 $^{\circ}$ C	
Operating Temperature	0 $^{\circ}$ C		+50 $^{\circ}$ C

Mechanical Specifications:

Item	Specification
RF Ports	SMA (F)
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	4 Oz
Size	1.65" (L) x 0.98" (W) x 0.71" (H)
Outline	OD-FCK-NW2

ECCN

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FEATURES

- Low AM/FM Noise and Harmonics
- Mechanically Tunable

APPLICATIONS

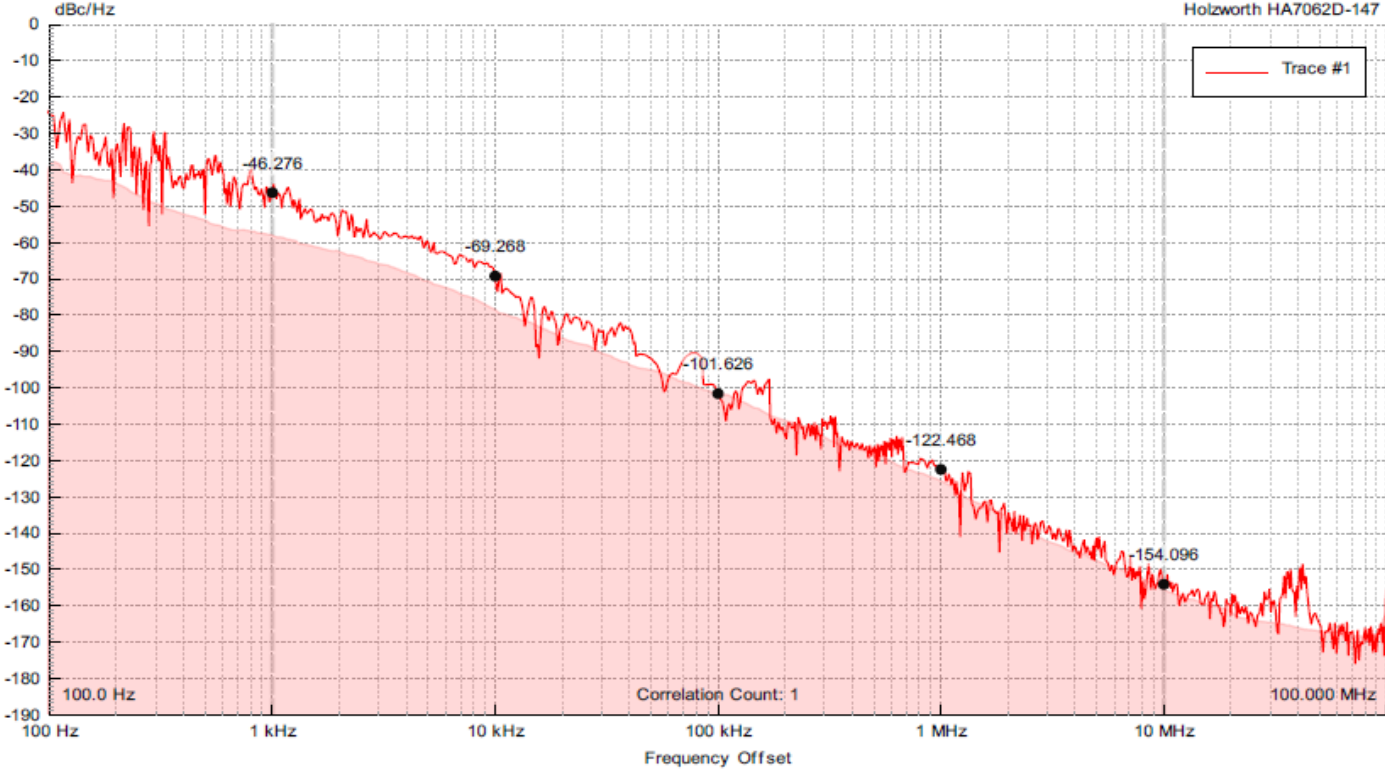
- Test Sources
- Signal Generation
- Lab Test Setups

SUPPLEMENTAL DETAILS

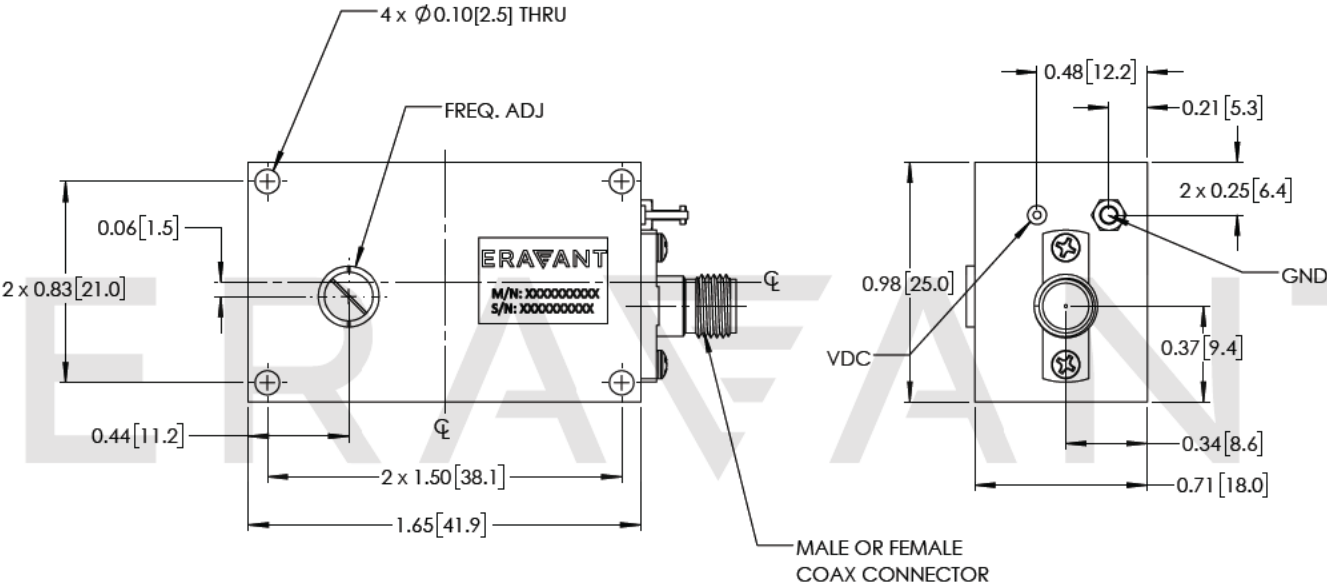


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Typical Phase Noise vs. Frequency Offset



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 an 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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