

SOD-10302114-SF-S4

Dielectric Resonator Oscillator, 10 GHz, +14 dBm

SOD-10302114-SF-S4 is a mechanically tuned, dielectric resonator oscillator with a center frequency of 10 GHz and a mechanical tuning range of ± 100 MHz. The oscillator delivers a nominal output power of +14 dBm with a low phase noise and harmonic emissions. The oscillator takes a +8 V_{DC}/50 mA DC bias. The RF output is equipped with a female SMA connector.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		10 GHz	
Power Output		+14 dBm	
Mechanical Tuning Range		± 100 MHz	
Frequency Stability			± 7 ppm/ $^{\circ}$ C
Phase Noise @ 100 KHz Offset		-100 dBc/Hz	
Spurious			-75 dBc
Harmonics			-20 dBc
Bias Voltage		+8 V _{DC}	
Bias Current		50 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	1.80" (L) x 1.00" (W) x 0.76" (H)
Outline	OD-FSX-NW1

ECCN

EAR99

FEATURES

- Low AM/FM Noise and Harmonics
- Mechanically Tunable

APPLICATIONS

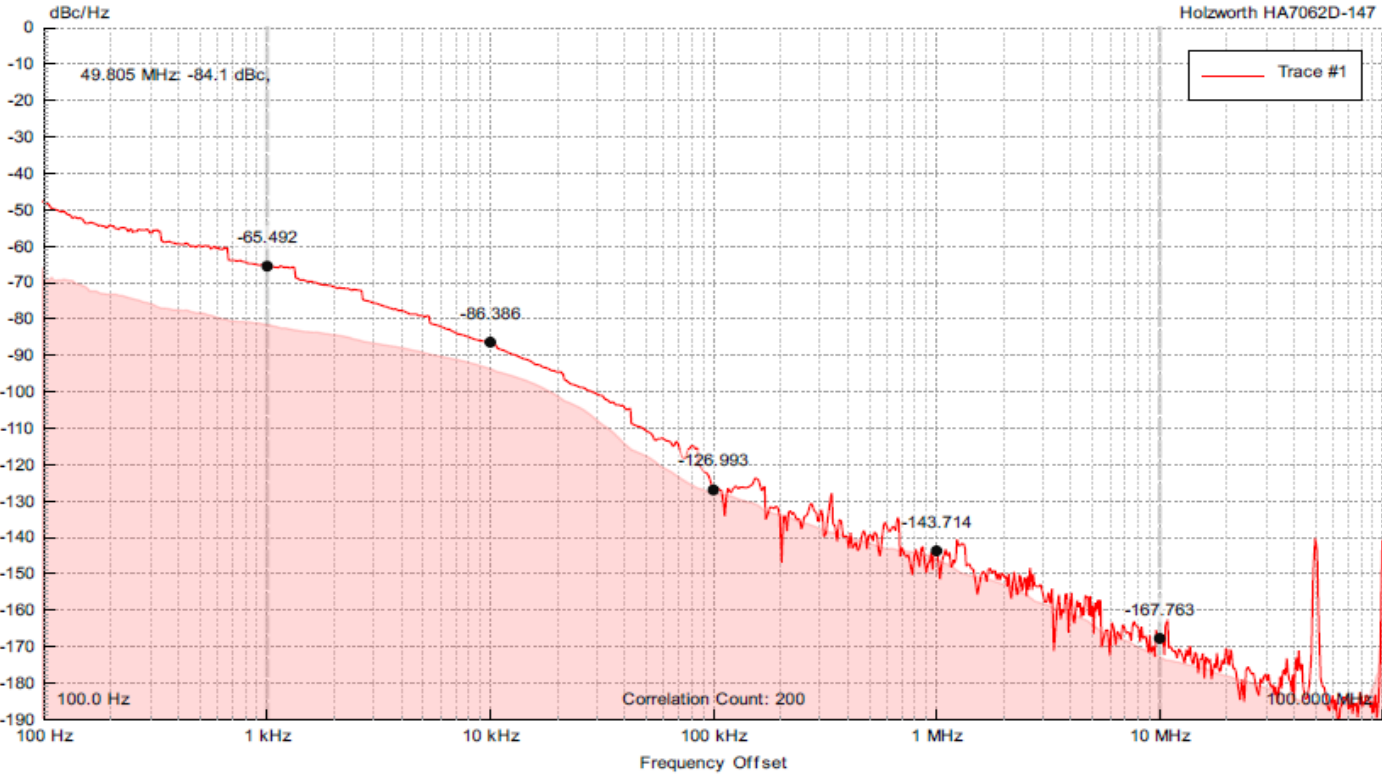
- Test Sources
- Signal Generation
- Lab Test Setups

SUPPLEMENTAL DETAILS

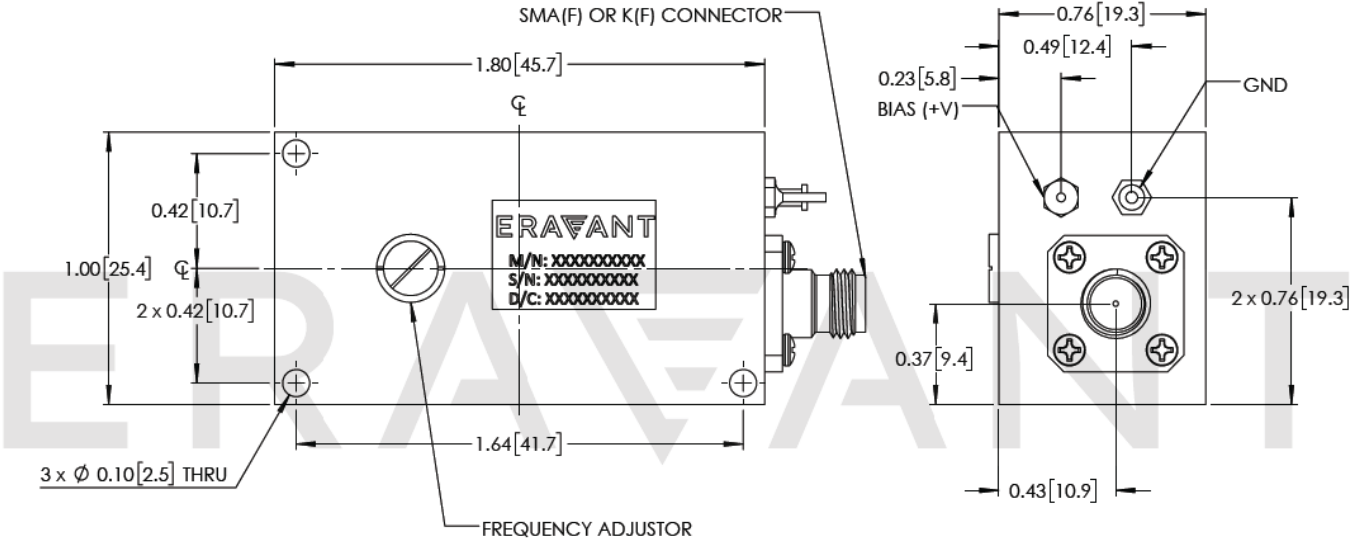


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Typical Phase Noise vs. Frequency Offset



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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