ERAVANT

SOD-17303213-SF-S4-2

Dielectric Resonator Oscillator, 16.75 GHz, +13 dBm

SOD-17303213-SF-S4-2 is a mechanically tuned, dielectric resonator oscillator with a center frequency of 16.75 GHz and a mechanical tuning range of ±150 MHz. The oscillator delivers a nominal output power of +13 dBm with a low phase noise and harmonic emissions. The oscillator takes a +12 V_{DC}/150 mA DC bias. The RF output is equipped with a female SMA connector.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Center Frequency		16.75 GHz	
Power Output	+11 dBm	+13 dBm	
Mechanical Tuning Range		±150 MHz	
Frequency Stability			±5 ppm/°C
Phase Noise @ 100 KHz Offset		-80 dBc/Hz	
Spurious		-75 dBc	
Harmonics		-20 dBc	
Bias Voltage		+12 V_{DC}	
Bias Current		150 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

ECCN

EAR99

FEATURES

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

APPLICATIONS

- Test Sources
- Signal Generation
- Lab Test Setups

SUPPLEMENTAL DETAILS

Mechanical Specifications:

Item	Specification
RF Ports	SMA (F)
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Nickel Plated
Weight	6 Oz
Size	1.75" (L) x 1.00" (W) x 0.86" (H)
Outline	OD-FCD-P1

Final Rev 1.1

Typical Phase Noise vs. Frequency Offset
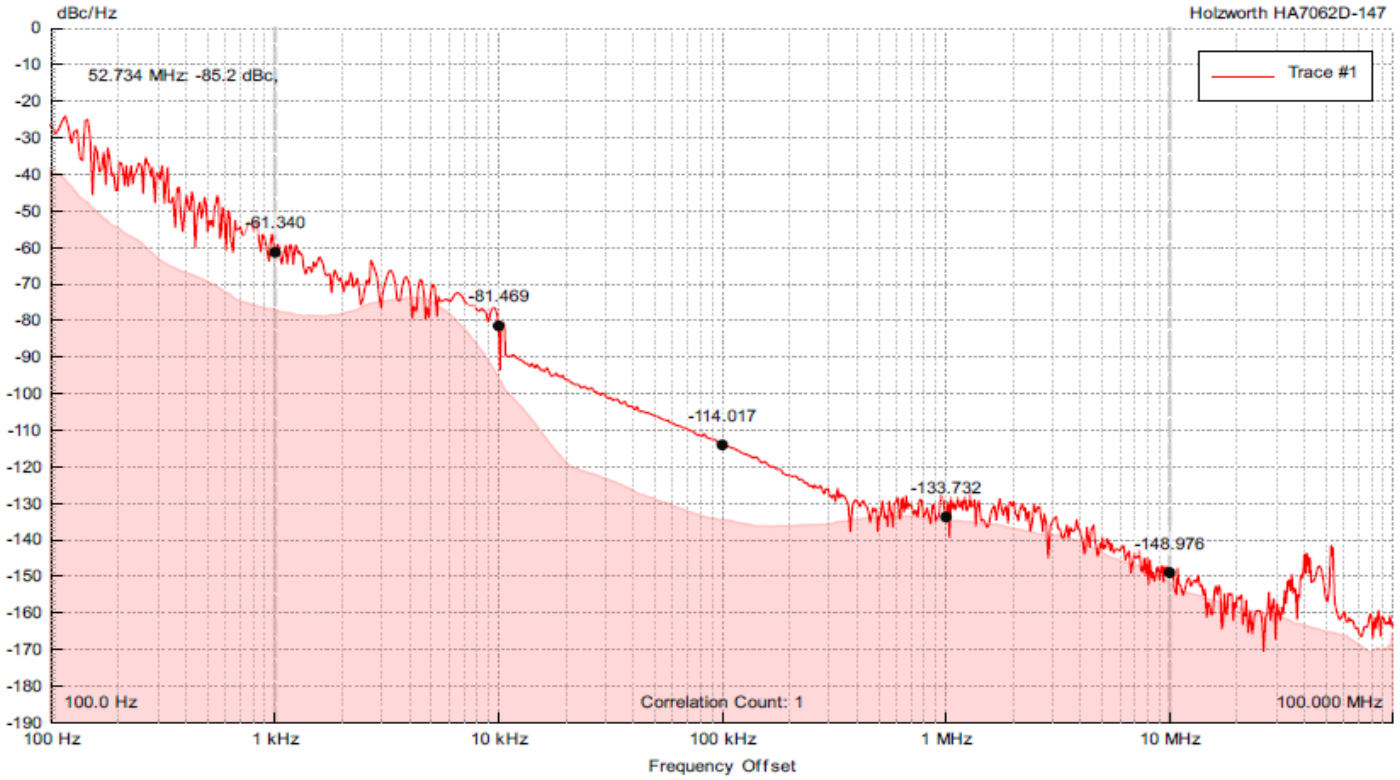
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])
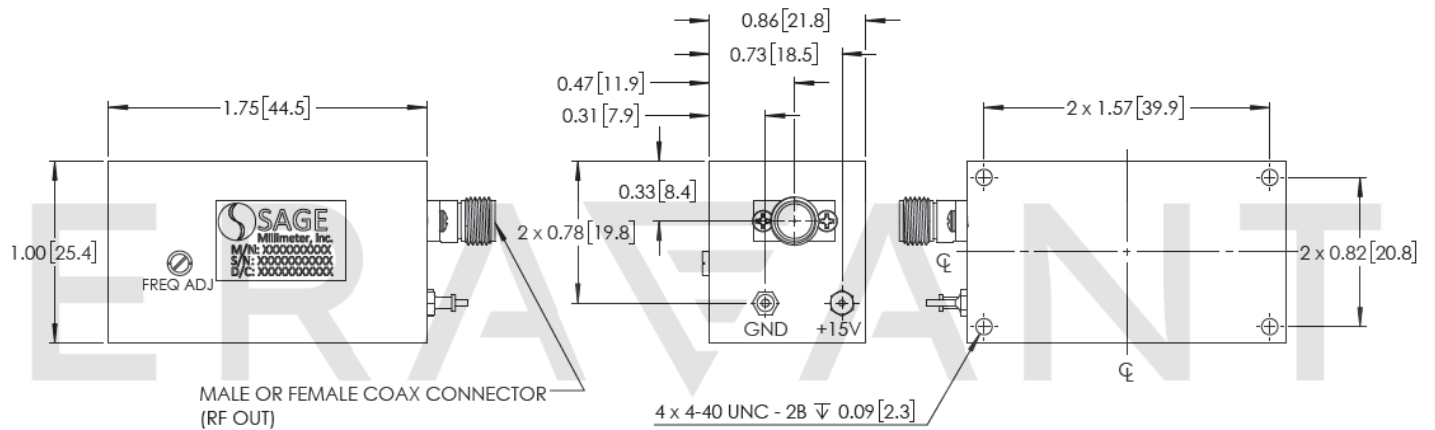
NOTE:
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

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.