SOW-14405313-06-S1

D-Band Voltage Tuned Oscillator, 140 to 145 GHz, +13 dBm

SOW-14405313-06-S1 is an D-band, voltage tuned oscillator with a frequency tuning range of 140 to 145 GHz. The oscillator takes a DC bias of +8 V_{DC}/600 mA and delivers +13 dBm output power with low phase noise and harmonic emissions. The tuning voltage range is from +5 to +6 V_{DC}. The tuning port is equipped with a SMA female connector. The RF output is a WR-06 waveguide with a UG-387/U anti-cocking flange.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	140 GHz		145 GHz
Power Output		+13 dBm	
Electrical Tuning Range		5 GHz	
Output Return Loss		8 dB	
Bias Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
Bias Current		600 mA	
Tuning Voltage Range	+5 V_{DC}		+6 V_{DC}
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
RF Port	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Tuning Port	SMA (F)
Bias Port	Solder Pins
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.00” (W) x 1.80” (L) x 0.75” (H)
Outline	FA-SD-2CW-A-1.8

ECCN

3A001.b.4.e.3

FEATURES

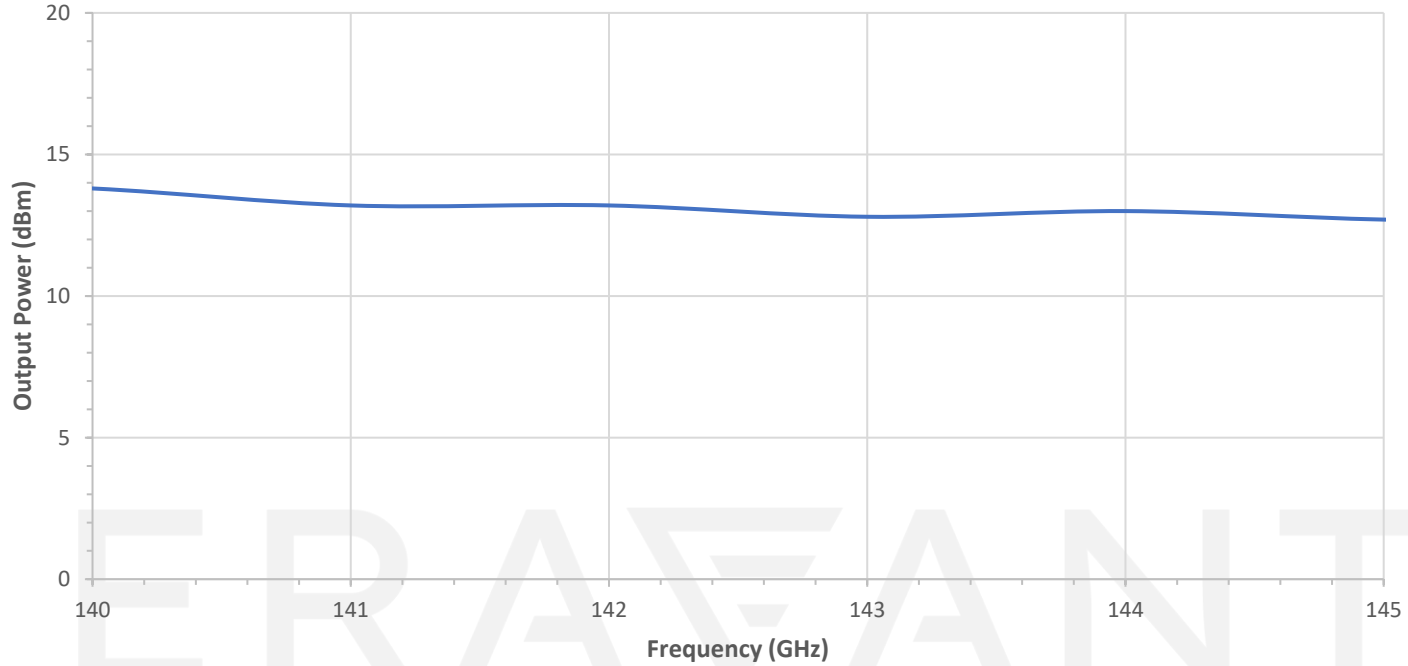
- Broad Tuning Bandwidth
- Flat Output Power

APPLICATIONS

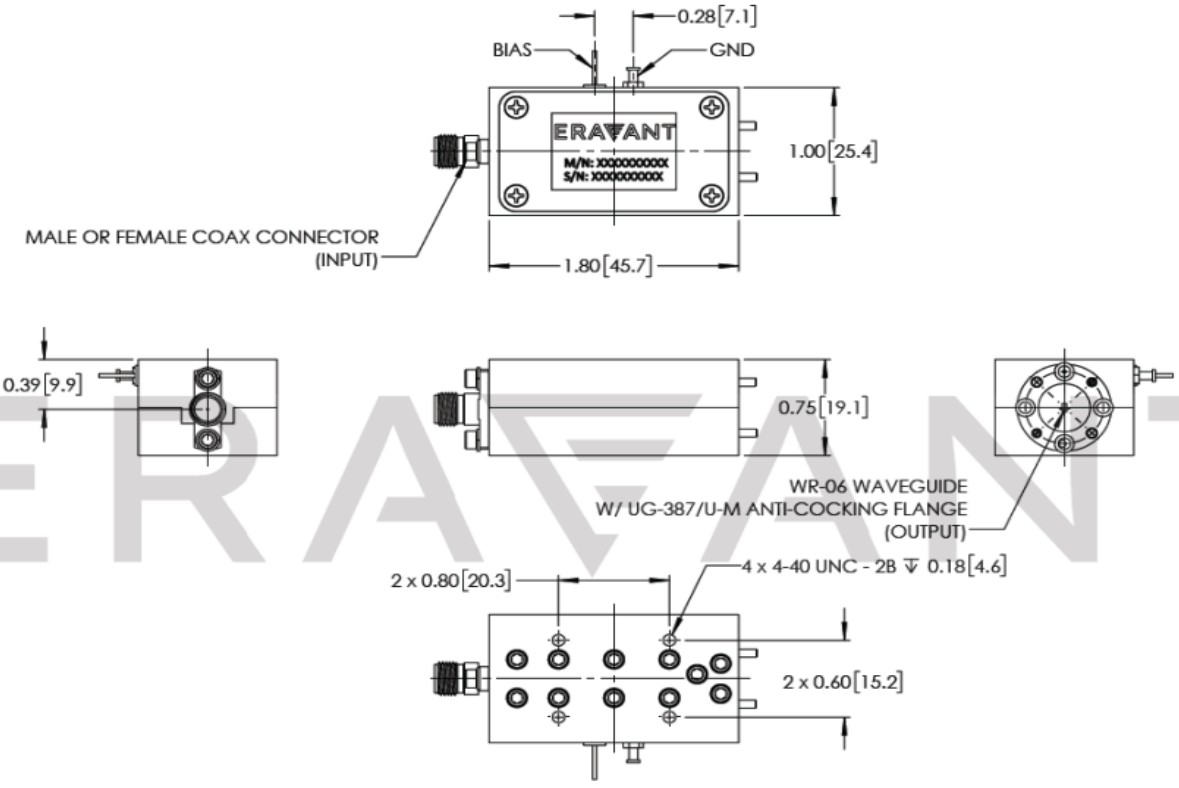
- Test Sources
- Signal Generations
- Lab Test Setups

SUPPLEMENTAL DETAILS

Output Power vs. Frequency



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- The device is static sensitive. Always follow ESD rules when working with the device.
- Reversing polarity will destroy the device.
- The VCO bias voltage should never exceed **+16.0 Volts**.
- The case temperature of the device should never exceed **+50 °C**. Use an additional heatsink or fan if necessary.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- 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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