



Broadband Voltage Tuned Oscillator, 16.5 GHz, ± 1.5 GHz, +15 dBm

Description:

Model **SOW-17303315-SF-U2** is a broadband, voltage tuned oscillator with a frequency tuning range of 15 to 18 GHz. The oscillator takes a DC bias of $+8 V_{DC}/340$ mA and delivers +15 dBm typical output power with low phase noise and harmonic emissions. The tuning voltage range is from +1 to +13 V_{DC} . The RF output port is equipped with a K (F) connector. The tuning port is an SMA (F) connector.



Features:

- Broad Tuning Bandwidth
- Flat Output Power

Applications:

- Test Sources
- Signal Generation
- Lab Test Setups

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	15 GHz		18 GHz
Power Output		+15 dBm	
Electrical Tuning Range		± 1.5 GHz	
Harmonics and Sub-harmonics		-20 dBc	
Spurious		-60 dBc	
Phase Noise*	-78 dBc/Hz @ 10 kHz Offset		
	-106 dBc/Hz @ 100 kHz Offset		
Bias Voltage	+6 V_{DC}	+8.0 V_{DC}	+12.0 V_{DC}
Bias Current		340 mA	
Tuning Voltage Range	+1 V_{DC}		+13 V_{DC}
Temperature Stability		1.8 MHz/ $^{\circ}C$	
Specification Temperature		+25 $^{\circ}C$	
Operating Temperature	0 $^{\circ}C$		+50 $^{\circ}C$

* See Notes.



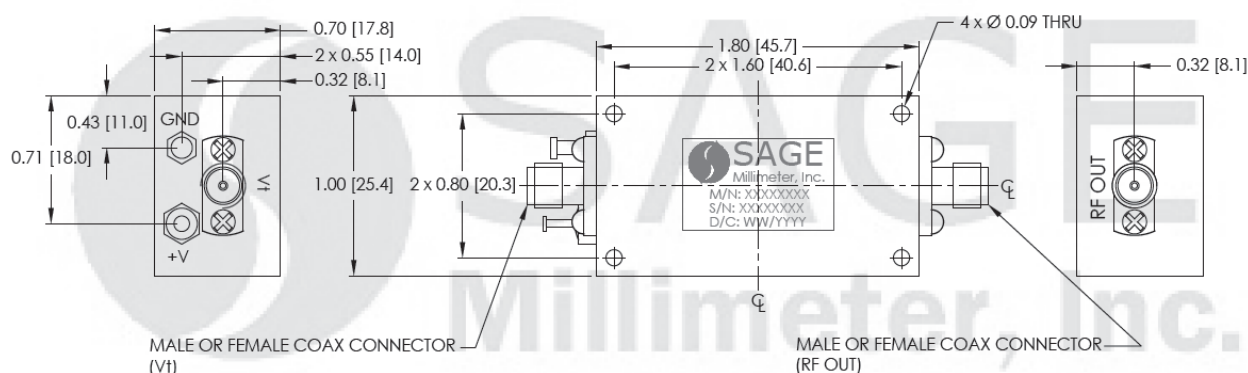


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Mechanical Specifications:

Item	Specification
RF Output	SMA (F)
Tuning Port	SMA (F)
DC Bias	Solder Pin
Case Material	Aluminum
Finish	Chem Film
Weight	1 Oz
Size	1.8" (L) x 1.0" (W) x 0.7" (H)
Outline	OW-PC-1

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



Note:

- Phase Noise specification is met by design.
- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Voltage tuned oscillator is a static sensitive device. Always follow ESD rules when working with the oscillator.
- DC Bias voltage should never exceed **+12 Vdc**. Exceed the upper limit of the bias voltage or reverse bias will damage the oscillator.
- Tuning voltage should never exceed **+13.0 Vdc**. Exceed the upper limit of the tuning voltage or reverse the bias polarity will damage the oscillator.
- The case temperature should never exceed **+50 °C**.
- Proper torque, 8.0 \pm 0.15 inch-pounds (0.92 \pm 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

