



V-Band Phase Locked Oscillator, 61.0 GHz, +15 dBm Power

Description:

Model SOP-61301115-15-E1 is a V Band phase locked oscillator with a typical output frequency of 61 GHz and a nominal output power of +15 dBm. The PLO is externally referenced. The required external reference is 100 MHz with 0 dBm nominal power. The phase noise of the oscillator is dependent on the quality of the reference source. The oscillator has a minimum harmonic suppression of -25 dBc and spurious of -70 dBc.



Features:

- High Output Power
- Low Phase Noise
- Low Harmonic Components

Applications:

- Radar Systems
- Communication Links
- Transmitters and Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency		61.0 GHz	
Output Power		+15 dBm	
Phase Noise	Reference + 20 Log (N) +3 dB		
Harmonic Suppression			-25 dBc
Spurious			-70 dBc
External Reference Frequency		100 MHz	
External Reference Input Power	-3 dBm	+0 dBm	+3 dBm
Bias (PLO)		+12 V _{DC} / 270 mA	+15 V _{DC}
Bias (Frequency Multiplier)	+6 V _{DC}	+8 V _{DC} / 550 mA	+15 V _{DC}
Frequency Stability (Internally Referenced)		±5 ppm	
Power Stability		±1 dB	
Operating Temperature	0 °C		+50 °C
Specification Temperature		+25 °C	

Mechanical Specifications:

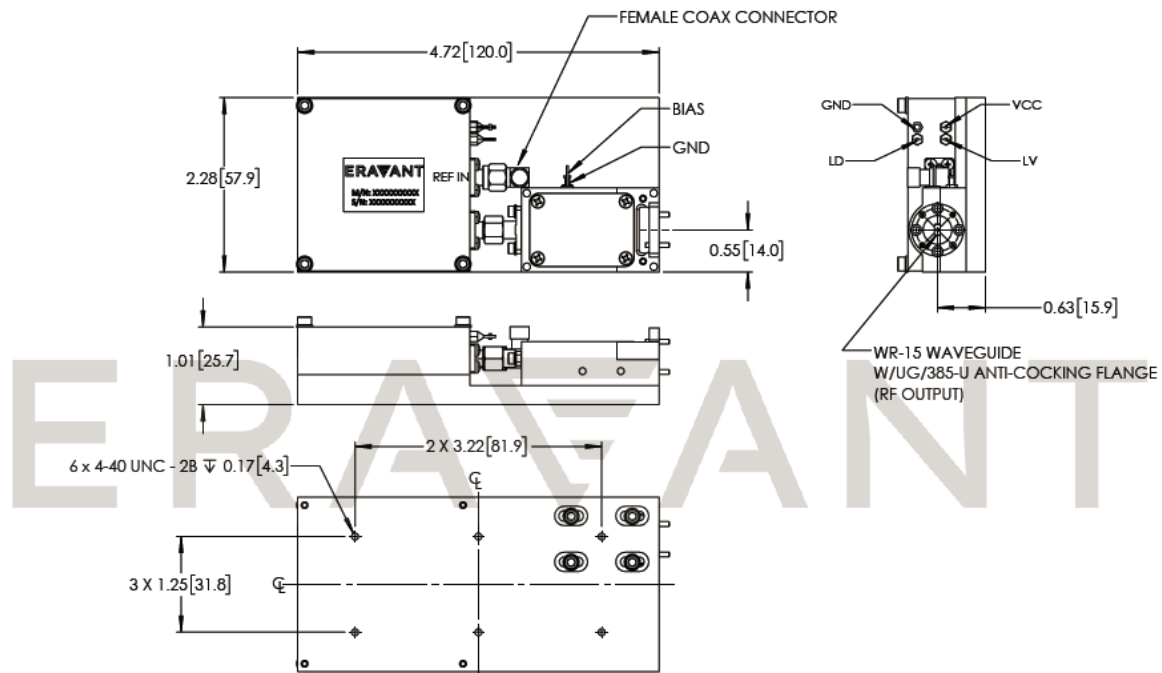
Item	Specification
RF Output	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
REF Input	SMA (F) Connector
Bias Port	Feedthru Pin
Phase Lock Indicator Port (LD)	Feedthru Pin
Phase Error Voltage (VT)	Feedthru Pin
Case Material	Aluminum
Weight	9.5 Oz
Size	2.28" (W) X 4.72" (L) X 1.01" (H)
Outline	OP-EV-S1





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



Note:

- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model number.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- The case temperature of the device shall never exceed **+50°C**. Use additional heatsink or fan if necessary.

