

# Oscillators

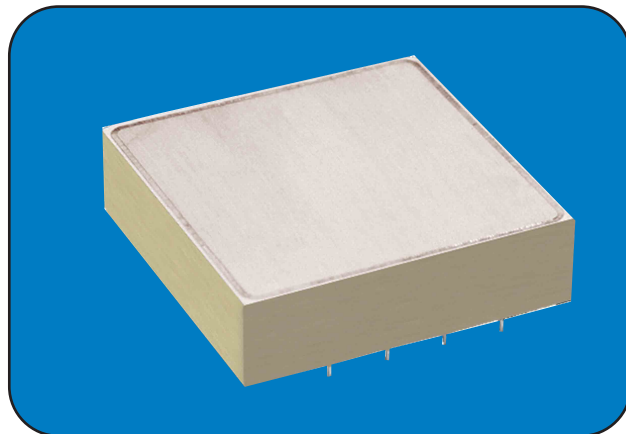
## Space Qualified PLO Family, 2, 10, 12, 14 GHz

### Model: OSC036



### Features:

- Internal Voltage Regulation
- Low Noise
- Small Size: 3.2 cubic inches
- Withstands 80 g<sub>rms</sub> Vibration
- Phase Locked to External 100 MHz Oscillator



### Electrical Specifications

Operating Frequency:	2, 10, 12 or 14 GHz
Reference Input:	100 MHz @ - 1 dBm ± 2 dB
Frequency Stability:	Same as input reference signal
Output Power:	+ 16 dBm ± 1 dB, nominal
Load VSWR:	1.6:1, maximum
SSB Phase Noise (dBc/Hz, typical):	<sup>Note 1</sup>

Offset	2 GHz Output
10 Hz	- 40
100 Hz	- 90
1 kHz	- 115
100 kHz	- 120
1 MHz	- 145
2 MHz	- 148

Output Integrated Noise:	
DSB -10 Hz to 10 MHz	2.7 degrees rms, maximum 0.8 degrees rms, typical

Spurious:	> - 80 dBc, typical
Harmonics:	> - 40 dBc, typical

BITE Scheme:  
Phase Lock (Analog Output, Varactor Tuning Voltage)

DC Power:	+ 16.5 ± 1 V @ 95 mA, nominal + 9 ± 0.75 V @ 200 mA, nominal
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Power Consumption:	3.41 W, nominal
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Note 1: Close-in phase noise is relative to the input noise levels of the reference oscillator.

Note 2: Performance may vary over the extended operating temperatures.

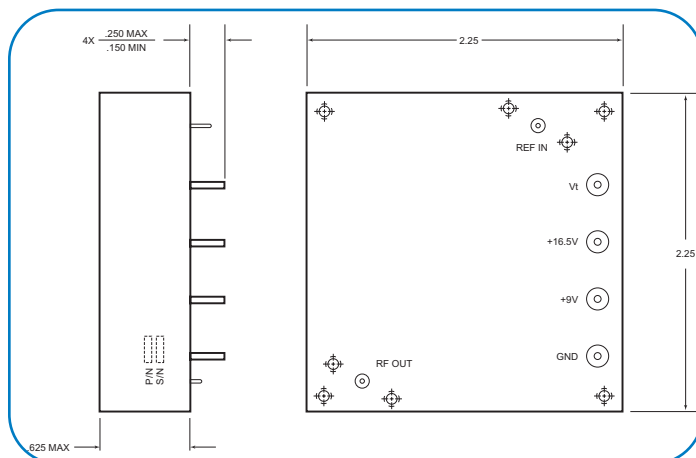
### Environmental Specifications

Operating Temperature:	+ 10 to + 60°C, baseplate
Extended Operating Temp.:	<sup>Note 2</sup> - 31 to + 85°C, baseplate
Environment:	Space
Random Vibration:	80 g <sub>rms</sub> , without damage
Mechanical Shock:	1500 g, without damage
Life:	12+ years

### Mechanical Specifications

Size: (excluding projections)	2.25 x 2.25 x 0.625 inches 57 x 57 x 16 mm
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Connectors:	Feedthrough Pins
Weight:	4 oz (113 g), maximum



Specifications subject to change without notice.