PHASE LOCKED OSCILLATOR

MODEL 611214 (800 MHz)

Features

- **Low Phase Noise: -137 dBc/Hz @ 100 kHz**
- **Low Spurious: -70 dBc Typical**
- **Internal Reference Design**
- **Environmental Screening Available**

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -20 ºC to +70 ºC
Frequency (MHz)	800	800
Output Power (dBm)	+10	+9
Variation Over Temperature (dBm)	±0.75	±1
Spurious (dBc)	-70	-60
Phase Noise (dB)	-92 dBc/Hz @ 100 Hz -121 dBc/Hz @ 1 kHz -129 dBc/Hz @ 10 kHz -127 dBc/Hz @ 30 kHz -137 dBc/Hz @ 100 kHz -148 dBc/Hz @ 1 MHz	
VSWR	1.5	2.0
Harmonics (dBc)	-25	-20
Lock Indicator	TTL (High=Locked)	TTL (Low=Unlocked)
Stability (ppm)	±1	±15
Storage Temperature	-55 ºC	+125 ºC
Supply Power DC mA	15 150	15 160

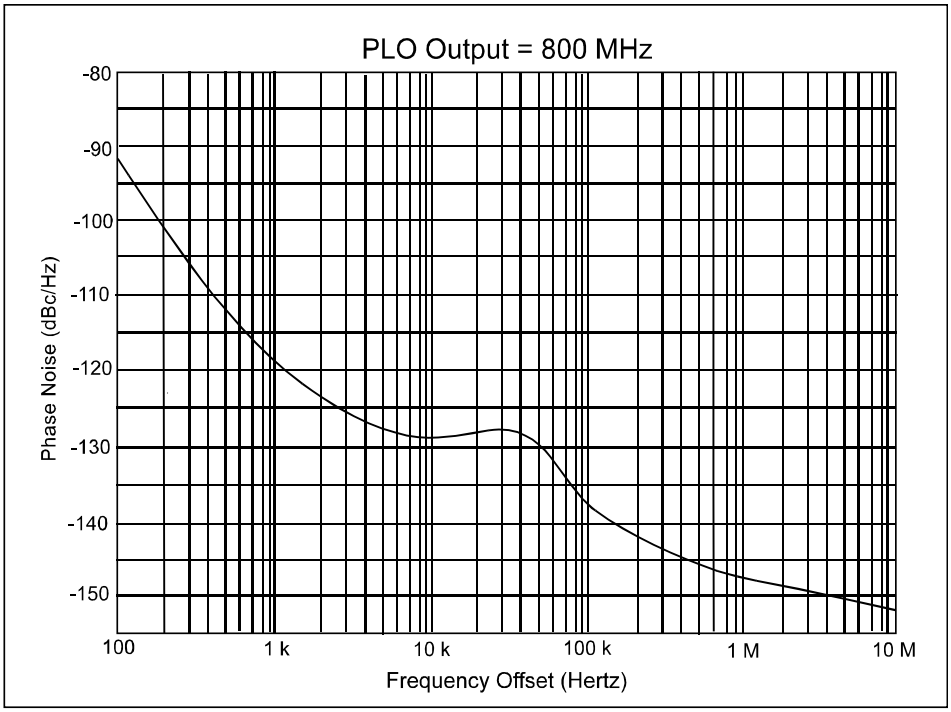
Description

Spectrum Microwave's Series 600 Phase Locked Oscillators use a High "Q" Coaxial Resonator in the resonant circuit. The circuit is lightly loaded to obtain the lowest phase noise possible.

The resonator is soldered to a printed circuit board and well grounded to minimize modulation sidebands during shock and vibration.

Buffer amplifiers are used to provide isolation from load VSWRs; Regulators filter noise on the DC input voltage.

External reference models are also available. A lock indicator circuit is provided to signal an out-of-lock condition.



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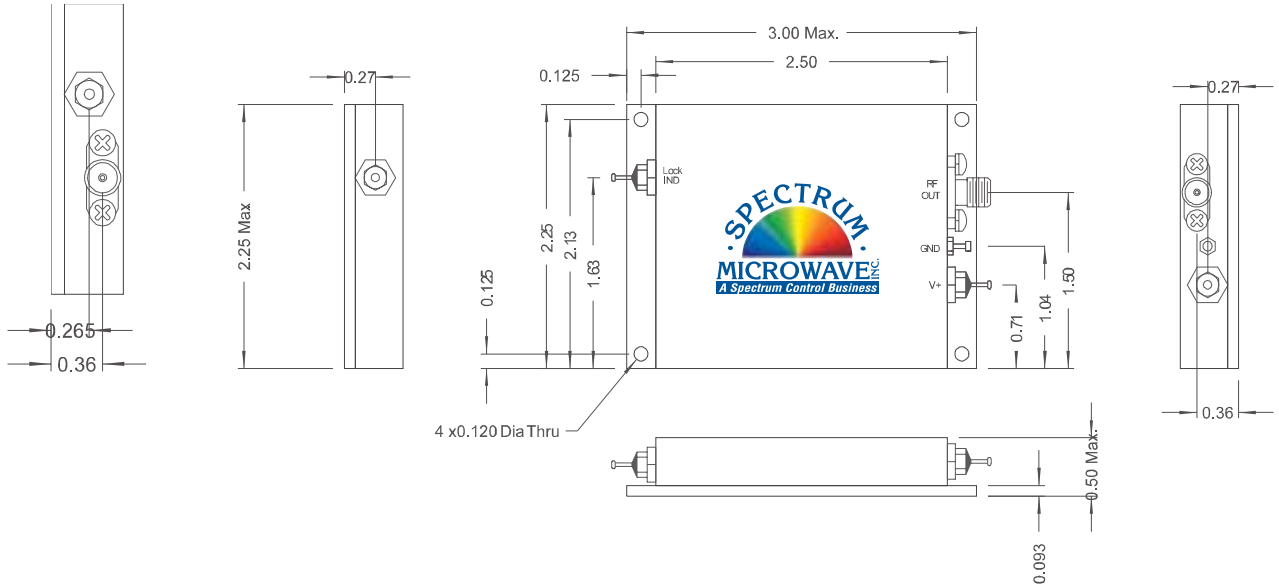
Outline Drawing



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