## PHASE LOCKED OSCILLATOR

### **MODEL** 611208 (500 MHz)



#### **Features**

■ Low Phase Noise: -138 dBc/Hz @ 100 kHz

■ Low Spurious: -70 dBc Typical

■ Internal Reference Design

**■** Environmental Screening Available

#### **Specifications**

CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta= 25 °C	Ta = -20 °C to +70 °C
Frequency (MHz)	500	500
Output Power (dBm)	+10	+9
Variation Over		
Temperature (dBm)	<u>+</u> 0.75	<u>+</u> 1
Spurious (dBc)	-70	-60
Phase Noise (dB)	-96 dBc/Hz @ 100 Hz -125 dBc/Hz @ 1 KHz -133 dBc/Hz @ 10 KHz -131 dBc/Hz @ 30 KHz -138 dBc/Hz @ 100 KHz -150 dBc/Hz @ 1 MHz	
VSWR	1.5	2.0
Harmonics (dBc)	-25	-20
Lock Indicator	TTL (High=Locked)	TTL (Low=Unlocked)
Stability (ppm)	<u>+</u> 1	<u>+</u> 15
Storage Temperature	-55 °C	+125 °C
Supply Power DC mA	15 150	15 160

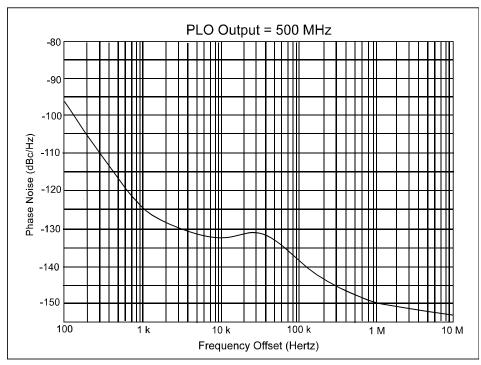
#### **Description**

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**

