

# Dielectric Resonator Oscillator

## Features

- Frequency: 7000 MHz
- Low Phase Noise: -90 dBc/Hz @ 100 Hz
- Low Spurious: -70 dBc Typical
- External Reference: 100 MHz
- Environmental Screening Available

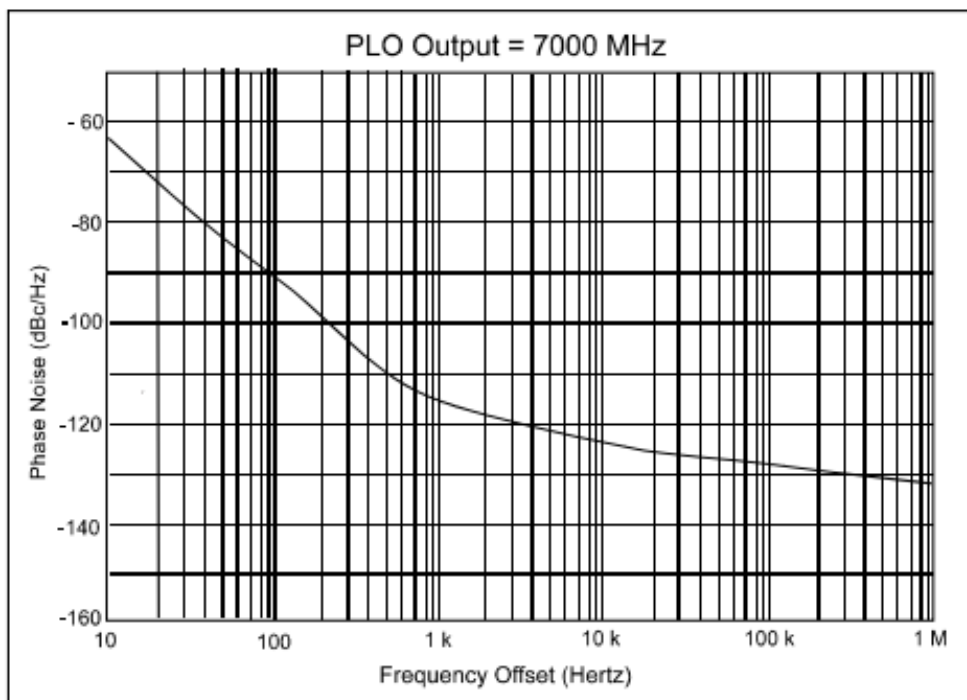
## Description

API's 600 Series Phase Locked Oscillators use a High "Q" Dielectric Resonator in the resonant circuit. The circuit is lightly loaded to obtain the lowest phase noise possible. The resonator is screwed to a printed circuit board and well-grounded to minimize modulation sidebands during shock and vibration. Isolators are used to provide isolation from load VSWRs. Regulators filter noise on the DC input voltage. Internal reference models are also available. A lock indicator circuit is provided to signal an out-of-lock condition.

## Specifications

CHARACTERISTIC	TYPICAL Ta = +25°C	MIN/MAX Ta = -20°C to +70°C
Frequency	7000 MHz	7000 MHz
Output Power (dBm)	+13.0	+12.0.
Variation Over Temperature (dBm)	+/- 1.5 dBm	+/- 2 dBm
Spurious (dBc)	-65	-60
Phase Noise (dB)	-62 dBc/Hz @ 10 Hz -90 dBc/Hz @ 100 Hz -115 dBc/Hz @ 1 KHz -123 dBc/Hz @ 10 KHz -128 dBc/Hz @ 100 KHz	-57 dBc/Hz @ 10 Hz -85 dBc/Hz @ 100 Hz -105 dBc/Hz @ 1 KHz -120 dBc/Hz @ 10 KHz -125 dBc/Hz @ 100 KHz
VSWR	1.5	2.0
Harmonics (dBc)	-25	-20
External Reference (MHz)	100	100
Lock Indicator	TTL (High = Locked)	TTL (Low = Unlocked)
Storage Temperature	-55	+125
Supply Power DC mA	15 150	15 160

### Performance Drawing



### Package Outline Drawing

