



# Model XO5083-059R Oven Controlled Crystal Oscillator

**RoHS Compliant** 

# **Electrical Specifications (typical)**

Nominal Frequency (Fo): 10.0MHz

### **Frequency Stability**

Over Temperature:  $\leq \pm 5ppb$ Aging (after 7-days power on) Daily Aging:  $\leq \pm 1ppb$  typical Yearly Aging:  $\leq \pm 200ppb$  typical vs Supply ( $\pm 5\%$  change in V<sub>s</sub>):  $\leq \pm 2ppb$ vs Load ( $\pm 10\%$  change in Load):  $\leq \pm 2ppb$ 

STS (Root Allan Variance,  $\tau$ =1-sec): 1x10<sup>-11</sup> typical

## **Frequency Adjustment**

Method: External 20KΩ Potentiometer

Range: Sufficient for 20-years correction for all causes

V<sub>REF</sub> (Pin 13): +4.1V<sub>DC</sub> typical

Linearity: < 10% Slope: Positive

#### **Output (Sinewave)**

Level:  $+3dBm \pm 2dB$ Load:  $50\Omega \pm 10\%$  **Harmonics:** ≤ -25dBc

**Spurious:** ≤ -80dBc

#### SSB Phase Noise (static conditions, typical)

-125dBc/Hz @ 10Hz offset -145dBc/Hz @ 100Hz offset

-155dBc/Hz @ 1kHz offset

-160dBc/Hz @ 10kHz offset

# Warm Up Time @ 25°C

To within  $1x10^{-7}$  of the frequency at 1-hour : < 3-min.

#### **Power**

Supply Voltage ( $V_S$ ): +5.4 $V_{DC}$ , ±5%

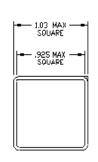
Power Consumption @ 25°C Steady-State: <1.2W

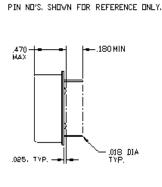
Power Consumption at Turn-on: < 3.5W

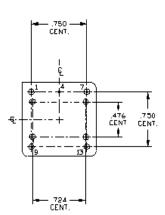
#### **Environmental**

Temperature Range

Operating: 0°C to +50°C Storage: -40°C to +85°C







PIN ASSIGNMENTS

1	RF OUTPUT
4	CASE GROUND
7	V TUNE
13	V REF
19	SUPPLY VOLTAGE

Revised: October 16, 2012 Rev. B Page 1 of 2

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