



## Model XO5083-046R Oven Controlled Crystal Oscillator

Full RoHS-6 Compliance

## **Electrical Specifications**

Nominal Frequency (Fo): 10.0MHz

**Frequency Stability** 

Over Temperature:  $\leq \pm 10ppb$ 

Aging (after 30-days continuous operation)

Daily:  $\leq \pm 0.50$  ppb Yearly:  $\leq \pm 0.1$ ppm

vs Supply ( $\pm 5\%$  change):  $\leq \pm 2ppb$ Short Term Stability:  $\leq 0.01ppb/second$ 

**Frequency Adjustment** 

Method: External Voltage ( $V_S$ ),  $0V_{DC}$  to  $+10.0V_{DC}$ Range:  $\pm 1.2$ ppm typical, Sufficient for 10 years aging

Modulation Bandwidth: > 1KHz

Linearity: ≤ 10%

Input Resistance:  $> 100 \text{K}\Omega$ 

Slope: Positive

**Output (Sinewave)** 

Level:  $\geq +8.5 dBm$ Load:  $50\Omega \pm 10\%$ 

**Harmonics:** ≤ -30 dBc

**G-Sensitivity (0-2000Hz):** < 1ppb/g

Warm Up Time @ 25°C

(relative to 2 hrs after turn-on following 24 hrs off)

To within 0.1ppm of final frequency: 3.0 minutes

**SSB Phase Noise (typical)** 

-125dBc/Hz @ 10Hz offset

-152dBc/Hz @ 100Hz offset

-160dBc/Hz @ 1kHz offset

-165dBc/Hz @ 10kHz offset

-165dBc/Hz @ 100kHz offset

**Power** 

Supply Voltage:  $+12.0V_{DC} \pm 5\%$ 

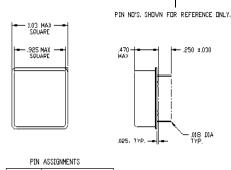
Consumption @ 25C° Steady State: 1.0W typical Consumption at Turn-on (all temperatures: < 3.6W

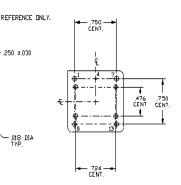
**Operating Temperature Range:** -40°C to +80°C

**Absolute Maximum Ratings** 

Operable Temperature Range: -55°C to +85°C

Storage:  $-55^{\circ}$ C to  $+125^{\circ}$ C Output Load:  $25\Omega$  minimum Supply Voltage: +15 V<sub>DC</sub>





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