



Model XO5083-052R

Oven Controlled Crystal Oscillator

RoHS Compliant

Electrical Specifications (typical)

Nominal Frequency (Fo): 10.0MHz

Frequency Stability

Over Temperature: $\leq \pm 5$ ppb

Aging (after 30-days power on)

Daily Aging: $\leq \pm 0.5$ ppb typical

Yearly Aging: $\leq \pm 50$ ppb typical

vs Supply ($\pm 5\%$ change in V_S): $\leq \pm 2$ ppb

Retrace (after 30-minutes power on following 24-hours power off): ± 20 ppb maximum

STS (Root Allan Variance, $\tau=1$ -sec): 1×10^{-11} typical

Frequency Adjustment

Method: External Voltage, 0V_{DC} to +4.1V_{DC}

Range: ± 1 ppm minimum

Linearity: $< 10\%$

Slope: Positive

Output (Sinewave)

Level: +3dBm ± 2 dB

Load: 50 Ω $\pm 10\%$

G-Sensitivity (worst direction): ± 5 ppb/g maximum

Harmonics: ≤ -25 dBc

SSB Phase Noise (static conditions, typical)

-95dBc/Hz @ 1Hz offset

-125dBc/Hz @ 10Hz offset

-145dBc/Hz @ 100Hz offset

-155dBc/Hz @ 1kHz offset

-163dBc/Hz @ 10kHz offset

-163dBc/Hz @ 100kHz offset

Warm Up Time @ 25°C

To within 1×10^{-7} of the frequency at 1-hour : < 3 -min.

Power

Supply Voltage (V_S): +5.0V_{DC}, $\pm 5\%$

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

Power Consumption at Turn-on: < 3.5 W

Environmental

Temperature Range

Operating: -10°C to $+60^\circ\text{C}$

Storage: -60°C to $+90^\circ\text{C}$

Humidity: Hermetically Sealed

Shock (survival): Per MIL-STD-202, 30g, half sine, 11msec

Vibration (survival): Per MIL-STD-202, 10g, Swept sine to 2000Hz

Soldering Conditions: 260°C for 10-sec.

