



Model XO5083-046R

Oven Controlled Crystal Oscillator

Full RoHS-6 Compliance

Electrical Specifications

Nominal Frequency (F₀): 10.0MHz

Frequency Stability

Over Temperature: $\leq \pm 10$ ppb
 Aging (after 30-days continuous operation)
 Daily: $\leq \pm 0.50$ ppb
 Yearly: $\leq \pm 0.1$ ppm
 vs Supply ($\pm 5\%$ change): $\leq \pm 2$ ppb
 Short Term Stability: ≤ 0.01 ppb/second

Frequency Adjustment

Method: External Voltage (V_S), 0V_{DC} to +10.0V_{DC}
 Range: ± 1.2 ppm typical, Sufficient for 10 years aging
 Modulation Bandwidth: ≥ 1 KHz
 Linearity: $\leq 10\%$
 Input Resistance: > 100 K Ω
 Slope: Positive

Output (Sinewave)

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

Harmonics: ≤ -30 dBc

G-Sensitivity (0-2000Hz): < 1 ppb/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 @ 25°C Steady State: 1.0W typical
 Consumption at Turn-on (all temperatures): ≤ 3.6 W

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

Absolute Maximum Ratings

Operable Temperature Range: -55°C to +85°C
 Storage: -55°C to +125°C
 Output Load: 25Ω minimum
 Supply Voltage: +15 V_{DC}

