



Model XO5083-028R

Oven Controlled Crystal Oscillator

Full RoHS Compliance

Electrical Specifications (typical)

Nominal Frequency (F₀): 10.0MHz

Frequency Stability

Over Temperature: $\leq \pm 10$ ppb
Daily Aging: $\leq \pm 0.50$ ppb
Yearly Aging: $\leq \pm 0.1$ ppm
10-Year Aging: $\leq \pm 1$ ppm
vs Supply: $\leq \pm 2$ ppb/percent change

Frequency Adjustment

Method: External Voltage, 0V_{DC} to +10.0V_{DC}
Range: Sufficient for 10 years aging
Modulation Bandwidth: 10Hz typical
Input Impedance: $> 20K\Omega$
Slope: Positive

Output (Sinewave)

$\geq +7$ dBm
Load: 50Ω , $\pm 10\%$

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

Acceleration Sensitivity: $< \pm 1$ ppb/g

Harmonics: ≤ -30 dBc (no spurious)

Oscillator Disable (TTL/CMOS Level Input)

Z_{IN}, $> 10K\Omega$
Pin 6 LOW (or Floating): Oscillator ENABLED
Pin 6 HIGH: Oscillator DISABLED

SSB Phase Noise (typical)

-130dBc/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}, $\pm 5\%$
Power Consumption @ 25°C Steady State: 1.0W typ.
Power Consumption at turn-on: ≤ 3.6 W

Temperature Range

Operating: 0°C to +70°C
Storage: -20°C to +85°C

Mass: < 20 -grams

Note: Device is not reflow compatible hand solder only

