

Model XO5085-001R

Oven Controlled Crystal Oscillator

Full RoHS Compliance

Electrical Specifications (National Instruments Part#: TBD)

Nominal Frequency (Fo): 100.0MHz

Frequency Stability

Over temperature: $\leq \pm 100$ ppb
Aging (after 30 days power on)
10-Years: $\leq \pm 1.0$ ppm
vs Supply Variation ($\pm 5\%$ change in V_S): $\leq \pm 30$ ppb
Short Term Stability (1.0 sec): 0.1ppb typical

Frequency Adjust

Method: External Voltage (V_C), $0V_{DC}$ to $+10.0V_{DC}$
Range: Sufficient for 10-years aging adjustment
 V_{REF} : $+9 V_{DC}$, typical, $\leq 0.5mA$
3dB Modulation Bandwidth: $\geq 1kHz$
Slope: Positive

Output (Sinewave)

Level: +9dBm typical
Load: $50\Omega \pm 10\%$

Harmonics: -25dBc

Spurious: -75dBc

G-sensitivity: 1.5 ppb/g Typical
3.0 ppb/g Maximum

SSB Phase Noise (Maximum)

-100dBc/Hz @ 10Hz offset
-132dBc/Hz @ 100Hz offset
-162dBc/Hz @ 1KHz offset
-170dBc/Hz @ 10KHz offset
-170dBc/Hz @ $\geq 100KHz$ offset

Warm Up Time @ 25°C (Maximum)

(Relative to 2-hrs after turn-on following 24-hrs off)
To within 0.1ppm of final frequency: ≤ 3.0 minutes

Power Supply

Supply Voltage (V_S): $+11.3V_{DC} \pm 5\%$
Power Consumption
@ 25°C Steady State: 1.5W typical
@ Warm Up: $\leq 3.6W$

Temperature Range

Operating: $0^\circ C$ to $+80^\circ C$
Storage: $-55^\circ C$ to $+85^\circ C$

