



Model XO5083-104R

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: $> 100K\Omega$
 Slope: Positive

Output (Sinewave)

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

Harmonics: ≤ -30 dBc

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

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

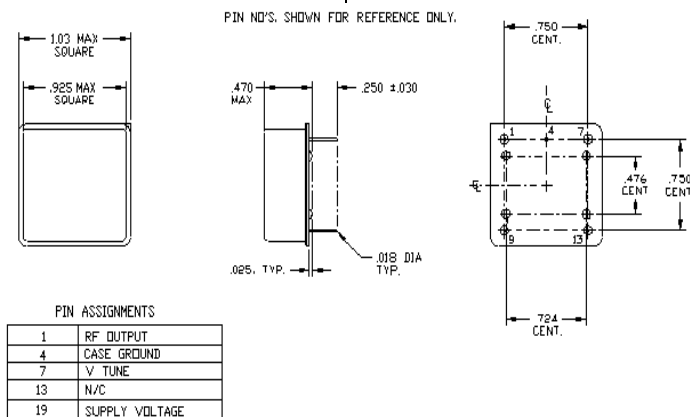
Power

Supply Voltage: +12.0V_{DC} $\pm 5\%$
 Consumption @ 25°C Steady State: 1.0W typical
 Consumption at Turn-on (all temperatures: ≤ 4.6 W)

Operating Temperature Range: -40°C to +85°C

Absolute Maximum Ratings

Operable and Storage: -55°C to +95°C



Date	Rev.	Orig.	Details of Revision
02/27/18	A	DPD	OT Changed from -40C to +70 C to -40C to +85C
08/29/14	O	DPD	Original Release

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MtronPTI, Inc. - 2525 Shader Road – Orlando – Florida – 32804-2780
Telephone: 407-298-2000 Fax: 407-293-2979 E-mail: Sales@mtronpti.com