MtronPTI
...when timing matters

Model XO5121-004V
Oven Controlled Crystal Oscillator
RoHS 5 Compliant

Electrical Specifications

Nominal Frequency (F_O): 10.0MHz

Calibration Tolerance
(V_C =2.5V_{DC}, @ 25°C and with V_S = nominal)
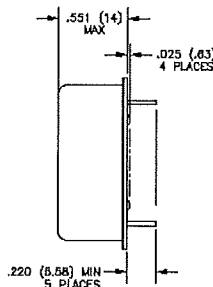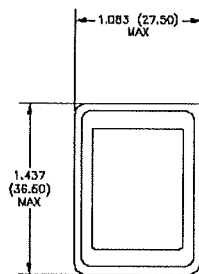< ±0.3ppm

Frequency Stability (ref. to 25°C)
vs temperature: <±30ppb
vs. supply change (per % change in V_S): <±2ppb
vs. load change (per % change in load):<±1ppb
Aging after 30 days continuous operation
< ±1.0ppb per day
±0.05ppm per year, typical

Frequency Adjustment
Method: External Voltage (V_C), 0V_{DC} to +5V_{DC}
Adjustment Range
Maximum, -0.7ppm with V_C =0.0V_{DC}
Minimum, +0.7ppm with V_C =5.0V_{DC}
V_{REF}: +4.0V_{DC} ±10%
Slope: positive
Input Impedance at V_{TUNE} pin: >200kΩ

Output (Sine)
Level (@ nominal frequency, Vs, and load): ≥+9dBm
Load: 50Ω ±5%

Harmonics and Sub-Harmonics (maximum)
-20dBc with nominal 50Ω load

SSB Phase Noise (maximum)
-110dBc/Hz @ 10Hz offset
-132dBc/Hz @ 100Hz offset
-142dBc/Hz @ 1kHz offset
-152dBc/Hz @ 10kHz offset

Warm Up Time @ 25°C with V_S = nominal
To within 0.1ppm of final frequency: <4.0 minutes

Power
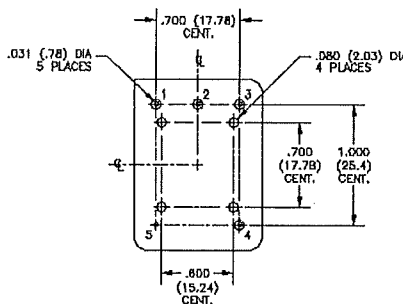Supply Voltage (V_S): +5V_{DC}, ±5%
Power Consumption
< 1.5W steady state @ 25°C with V_S = nominal
< 3.0W during warm @ 25°C with V_S = nominal

Temperature Range
Operating (OTR): -20°C to +70°C
Storage: -40°C to +85°C

Package
Per outline drawing below

PIN	FUNCTIONS
1.	Vtune
2.	Vref
3.	SUPPLY
4.	RF OUT
5.	GROUND

DIMENSIONS ARE SHOWN IN INCHES (MM)
PIN NUMBERS SHOWN FOR REFERENCE ONLY

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