

Specification for a Sine Output Thru-Hole OCXO

MtronPTI P/N: XO5123-037R

Electrical Specifications:

Unless otherwise specified; T= +25°C, V_S = +5V_{DC}, V_C = +0V_{DC}, Load= 50Ω

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		10.000000		MHz	
Initial Frequency		-0.1		+0.1	ppm	At time of shipment
Frequency Stabilities						
vs. Temperature Range		-10		+10	ppb	-20°C to +70°C
vs. Supply Voltage		-2.0		+2.0	ppb	±5% change in voltage
vs. Load		-2.5		+2.5	ppb	±5% change in load
Aging/Day		-0.5		+0.5	ppb	After 30-days Power On
Aging/Year		-0.1		+0.1	ppm	
Short Term Stability (Allan deviation)				1	x10 ⁻¹¹	Per Second.
RF Output						
Output Type			Sinewave			
Output Load			50		Ω	±5%
Level	V _{OH}	+10			dBm	In a 50Ω load
Frequency Adjustment						
Method			External Voltage Tuned			
Tuning Slope			Negative			
Tuning Voltage	V _{TUNE}	-5	0	+5	V _{DC}	
Tuning Sensitivity			-1.6		Hz/V	Over tuning voltage range
Modulation Bandwidth		1			kHz	
Other Parameters						
SSB Phase Noise (under static conditions)				-115	dBc/Hz	@ 1Hz Offset
				-146		@ 10Hz Offset
				-156		@ 100Hz Offset
				-163		@ 1kHz Offset
				-170		@ 10kHz Offset
				-172		@ 100kHz Offset
G-Sensitivity				1.0	ppb/g	Worst case axis
Warm-up Time	ΔF/F			5	Minutes	To be within ±100ppb, @ 25°C, referenced to the frequency after 24-hour power on
Harmonics				-30	dBc	
Spurious				-80	dBc	
Supply Voltage & Power Consumption						
Supply Voltage	V _S	4.75	5.0	5.25	V _{DC}	
Power Consumption				2.5	Watts	Steady state @ 25°C, in still air
				4.5	Watts	In still air @ turn on
Osc Disable Logic		Pin 4: CMOS Logic levels '0' : Oscillator Disabled Pin 4: CMOS Logic levels '1' : Oscillator Enabled				
Oven Monitor				0.5	V _{DC}	Pin 7: Oven Not Ready
		3.3			V _{DC}	Pin 7: Oven Ready

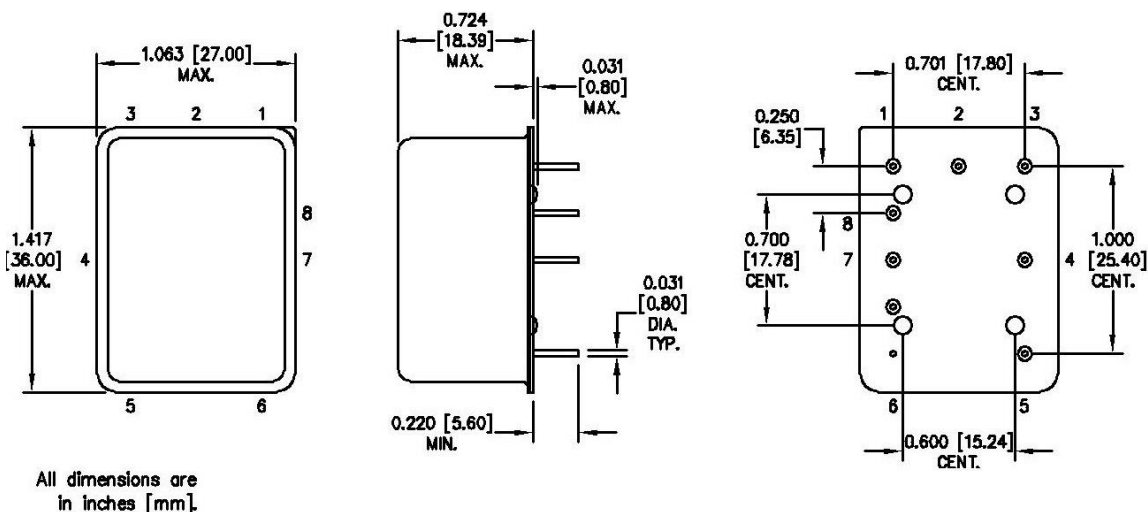
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Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	OTR	-20		+70	°C	
Storage Temperature	STR	-55		+85	°C	
Vibration (survival)	Per MIL-STD 202G, Method 204, Condition A					
Shock (survival)	Per MIL-STD 202G, Method 213, Condition C					
Solderability	Per EIAJ-STD-002					
RoHS	Full RoHS Compliance					

Mechanical, Marking and Pinout Information:

Pin	Function
1	V _{TUNE}
2	N/C
3	Supply Voltage
4	Enable / Disable
5	RF _{OUT}
6	Ground
7	Oven Monitor
8	N/C



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
07-17-12	0	MM	Original Release.