

Specification for a Sine Output Thru-Hole OCXO

MtronPTI P/N: XO5123-064R

Electrical Specifications:

Unless otherwise specified; $T = +25^{\circ}\text{C}$, $V_S = +12V_{DC}$, $V_C = +2.5V_{DC}$, Load= 50Ω

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F_0		10.000000		MHz	
Initial Frequency		-0.1		+0.1	ppm	At time of shipment
Frequency Stabilities						
vs. Temperature Range		-10.0		+10.0	ppb	-40°C to +85°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)			5		$\times 10^{-12}$	Per Second.
RF Output						
Output Type		Sinewave				
Output Load			50		Ω	±5%
Level	V_{OH}	+8	+10	+12	dBm	In a 50Ω load
Startup Time				500	ms	
Frequency Adjustment						
Method		External Voltage Tuned				
Tuning Slope		Positive				
Tuning Voltage	V_{TUNE}	0	2.5	+5	V_{DC}	
Tuning Range			+/- 2		ppm	Over tuning voltage range
Modulation Band Width		1			kHz	
Other Parameters						
SSB Phase Noise (under static conditions)			-105		dBc/Hz	@ 1Hz Offset
				-137		@ 10Hz Offset
				-155		@ 100Hz Offset
				-162		@ 1kHz Offset
				-169		@ 10kHz Offset
				-169		@ 100kHz Offset
Warm-up Time	$\Delta F/F$			5	Minutes	To be within ±100ppb, @ 25°C, referenced to the frequency after 24-hour power on
Harmonics				-30	dBc	
Spurious				-70	dBc	
Supply Voltage & Power Consumption						
Supply Voltage	V_S	11.4	12.0	12.6	V_{DC}	
Power Consumption			2.1		Watts	Steady state @ 25°C, in still air
				5	Watts	@ turn on Over operating temperature range

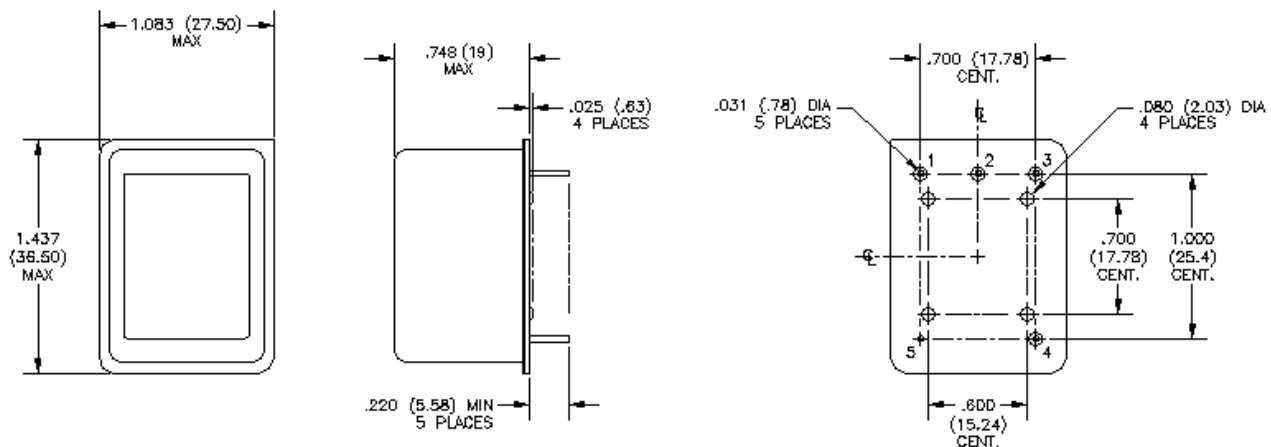
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Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	OTR	-40		+85	°C	
Storage Temperature	STR	-40		+90	°C	
Vibration (survival)	Per MIL-STD 202G, Method 204, Condition A					
Shock (survival)	Per MIL-STD 202G, Method 213, Condition C					
Humidity	0% to 98%					
Solderability	Per EIAJ-STD-002					
RoHS	Full RoHS Compliance					

Mechanical, Marking and Pinout Information:



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

Pin	Function
1	V _{TUNE}
2	NC
3	Supply Voltage
4	RF _{OUT}
5	Ground

Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
06-26-18	A	DPD	Original Release.