

Specification for a Sine Output OCXO

MtronPTI P/N: XO5089-018R

Electrical Specifications:

Unless otherwise specified; T= +25°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		-50		+50	ppb	At time of shipment
Frequency Stabilities						
vs. Temperature Range		-50		+50	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
Daily Aging			0.5		ppb	After 30-days Power On
2 nd Year Aging			50		ppb	
Aging/Year			30		ppb	
Short Term Stability (Allan deviation)				1	x10 ⁻¹¹	Per Second.
RF Output						
Output Type		Sinewave				
Output Load			50		Ω	±5%
Level			+10		dBm	In a 50Ω load
Frequency Adjustment						
Method		External Voltage Tuned				
Tuning Slope		Positive				
Tuning Range		+/- 1			ppm	
Tuning Voltage	V _{TUNE}	0		+5	V _{DC}	
Modulation Bandwidth		1			kHz	
Other Parameters						
Phase Noise						
			-100		dBc/Hz	@ 1Hz Offset
			-137			@ 10Hz Offset
			-155			@ 100Hz Offset
			-157			@ 1kHz Offset
			-162			@ 10kHz Offset
			-162			@ 100kHz Offset
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	
G-sensitivity				0.3	ppb/g	
Supply Voltage & Power Consumption						
Supply Voltage	V _S	11.4	12.0	12.6	V _{DC}	
Power Consumption			1.5		Watts	Steady state @ 25°C, in still air
				4.0	Watts	In still air @ turn on

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Environmental Conditions:

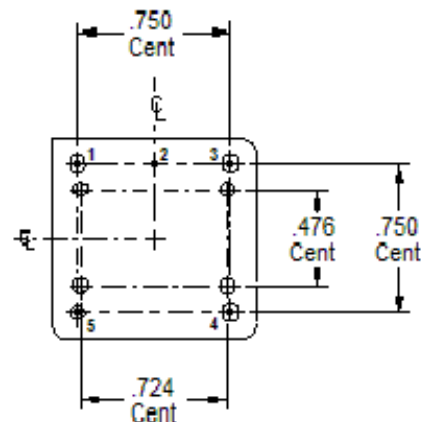
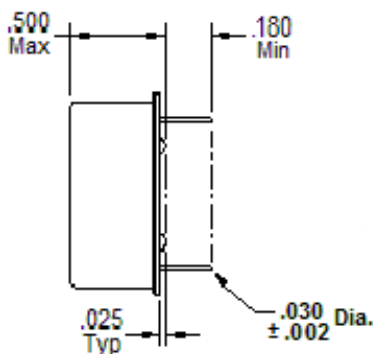
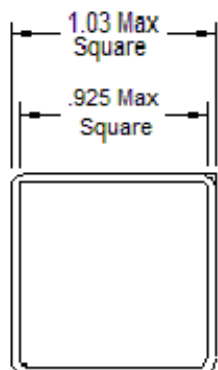
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	OTR	-20		+70	°C	
Storage Temperature	STR	-40		+85	°C	
Vibration (survival)	Per MIL-STD 202G, Method 204, Condition A					
Shock (survival)	Per MIL-STD 202G, Method 213, Condition C					
Solderability	Per EIAJ-STD-002					
RoHS	Full RoHS Compliance					

Mechanical, marking and pin out Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5089-018R
Line 3	10.0000MHz
Line 4	Serial Number
Line 5	Date Code

Pad	Function
1	RF Output
2	Case Ground
3	V _{TUNE}
4	N/C
5	Supply Voltage

Legend	
yy	Year
ww	Work Week



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
03-19-20	A	BRR	Original Release.