

Specification for a Sinewave Output Thru-Hole OCXO

MtronPTI P/N: XO5085-093R

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F ₀		50.000000		MHz	
Frequency Stabilities						
Initial Tolerance		-0.085		+0.085	ppm	@25°C V _c :5Vdc at the time of shipment
vs. Temperature	ΔF _T /F	-0.250		+0.250	ppm	Over the operating temperature range of -40°C to +85°C
vs. Supply		-0.01		+0.01	ppm	5% change
vs. Load		-0.005		+0.005	ppm	5% change
Aging per day @30days		-0.01		+0.01	ppm	
Aging 1-year after 30days		-0.50		+0.50	ppm	
Aging 10-years		-0.75		+0.75	ppm	
Short Term Stability			1 x 10 ⁻¹⁰			Tau = 1sec
RF Output						
Output Type		Sinewave				
Output Level		+7			dBm	
Output Load		47.5	50	52.5	Ω	±5%
Frequency Adjustment(positive slope)						
Adjustment Method		External Voltage				
Adjustment Voltage	V _{TUNE}	0	+5	+10	V _{DC}	
Adjustment Range/Pull			+/- 1.1		ppm	
Input Impedance			100		kohm	
Linearity			10%			
Additional Parameters						
Phase Noise				-100	dBc/Hz	10Hz Offset
				-128	dBc/Hz	100Hz Offset
				-155	dBc/Hz	1kHz Offset
				-165	dBc/Hz	10kHz Offset
				-165	dBc/Hz	100kHz Offset
Harmonics				-30	dBc	
Spurious				-90	dBc	
Warm-up Time				5	minutes	@ 25°C, After turn on from cold, OCXO to be within 0.1ppm of final frequency at 30minutes
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+95	°C	
Operating Voltage	V _S	+11.4	+12.0	+12.6	V _{DC}	
Power Consumption				2.5	Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Start-up 25°C

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Environmental Conditions:

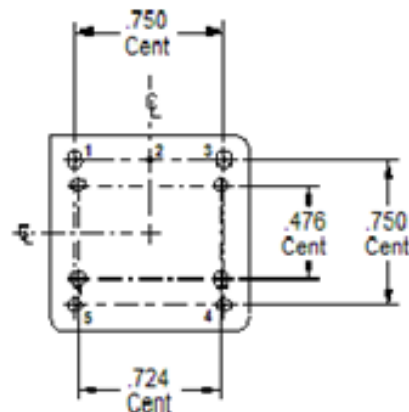
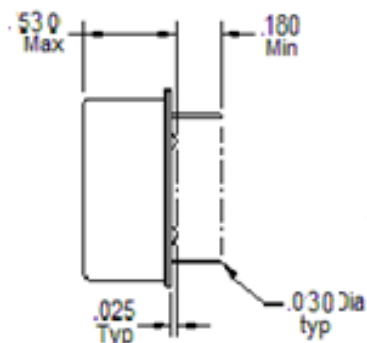
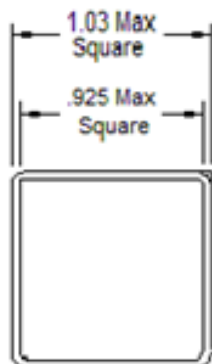
Shock	MIL-STD 202G, Method 213 Condition C (survival)
Vibration	MIL-STD 202G, Method 204 Condition A (survival)
MSL	Level 1
Seal	Hermetic
RoHS	Full RoHS Compliance

Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5085-093R
Line 3	50.0000MHz
Line 4	Serial Number
Line 5	Date Code

Legend	
yy	Year
ww	Work Week

Pin	Function
1	Output
2	RF & Case Ground
3	Voltage Control
4	NC
5	+VDC



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
07/25/18	B	DPD	Revised to match customer requirements.
06/15/18	A	DPD	Original Draft.