

Specification for a Sinewave Output Thru-Hole OCXO

MtronPTI P/N: XO5085-089R

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		48.000000		MHz	
Frequency Stabilities						
vs. Temperature	ΔF _T /F	-50		+50	ppb	Peak-Peak over the operating temperature range
10-Years Aging		-1.5		+1.5	ppm	After 30-days Power On
Short Term Stability			1 x 10 ⁻¹⁰			Allan Deviation, Tau = 0.1sec to 1sec
RF Output						
Output Type		Sinewave				
Output Level			+6		dBm	
Output Load			50		Ω	±10%
Frequency Adjustment						
Adjustment Method		External Voltage				
Adjustment Voltage	V _{TUNE}	0		+5	V _{DC}	
Adjustment Range		Sufficient for 10-years aging adjustment				
V _{REF}	V _{REF}		+4		V _{DC}	≤ 0.5mA
Modulation Bandwidth		1			kHz	3dB
Additional Parameters						
Phase Noise			-100		dBc/Hz	10Hz Offset
			-132		dBc/Hz	100Hz Offset
			-160		dBc/Hz	1kHz Offset
			-170		dBc/Hz	10kHz Offset
			-170		dBc/Hz	100kHz Offset
Harmonics				-25	dBc	
Spurious				-75	dBc	
Warm-up Time				4	minutes	@ 25°C, relative to 2-hrs after turn-on following 24-hrs off. To within ±0.1ppm of final frequency.
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+85	°C	
Operating Voltage	V _S	+4.75	+5.0	+5.25	V _{DC}	
Power Consumption				2.0	Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

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Environmental Conditions:

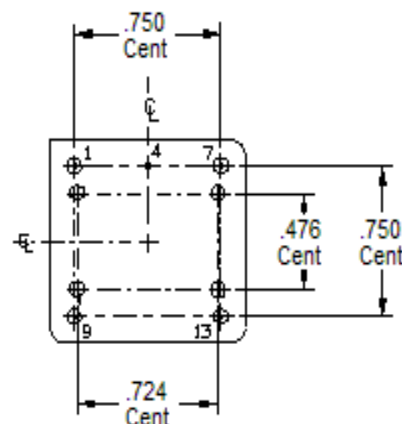
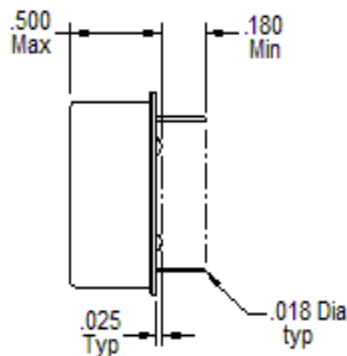
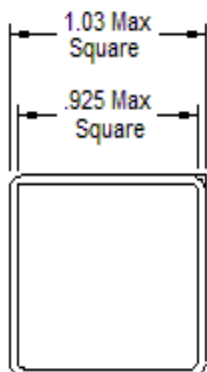
MSL	Level 1
Seal	Hermetic
RoHS	Full RoHS Compliance

Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5085-089R
Line 3	48.0000MHz
Line 4	Serial Number
Line 5	Date Code

Legend	
yy	Year
ww	Work Week

Pin	Function
1	RF Output
4	Case Ground
7	V _{TUNE}
13	V _{REF}
19	Supply Voltage



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
05/23/18	B	DPD	F/T spec updated from +/-100ppb to +/- 50ppb
05/22/18	A`	DPD	Original Draft.