

Specification for a Sinewave Output Thru-Hole OCXO

MtronPTI P/N: XO5085-009R

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F ₀		100.000000		MHz	
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-100		+100	ppb	Peak-Peak over the operating temperature range
vs. Supply Voltage	$\Delta F_{V_S}/F$	-30		+30	ppb	5% change in V _S
10-Years Aging		-1		+1	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			+9		dBm	
Output Load			50		Ω	±10%
Frequency Adjustment						
Adjustment Method			External Voltage			
Adjustment Voltage	V _{TUNE}	0		+3	V _{DC}	
Adjustment Range			Sufficient for 10-years aging adjustment			
V _{REF}	V _{REF}		+10.0		V _{DC}	≤ 0.5mA
Modulation Bandwidth		1		s	kHz	3dB
Additional Parameters						
Phase Noise			-100		dBc/Hz	10Hz Offset
			-132		dBc/Hz	100Hz Offset
			-162		dBc/Hz	1kHz Offset
			-170		dBc/Hz	10kHz Offset
			-170		dBc/Hz	100kHz Offset
Harmonics				-25	dBc	
Spurious				-75	dBc	
G-sensitivity			1		ppb/g	
Warm-up Time				5	minutes	@ 25°C, after > 24-hrs on followed by 24-hrs off, to within ±0.1ppm of final frequency relative to 2-hrs after turn-on.
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	T _A	0		+80	°C	
Storage Temperature	T _S	-55		+85	°C	
Operating Voltage	V _S	+11.4	+12.0	+12.6	V _{DC}	
Power Consumption				1.5	Watts	Steady state @ 25°C, In Still Air
				3.6	Watts	@ Warm-up

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Environmental Conditions:

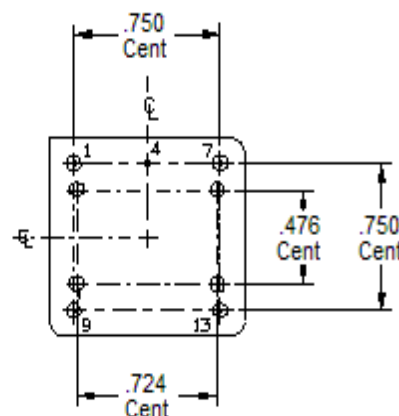
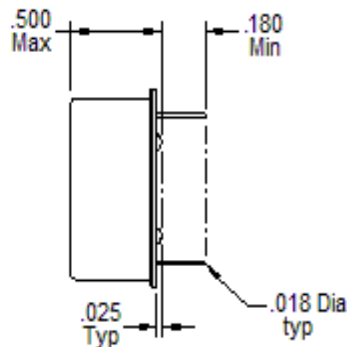
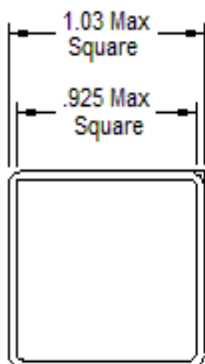
MSL	Level 1
Seal	Hermetic
RoHS	Full RoHS Compliance

Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5085-009R
Line 3	100.0000MHz
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
02/06/13	3	BRM	Corrected a typographical error in the G-sensitivity specification, was maximum and is now typical.
10/15/12	2	BRM	Corrected V _{REF} voltage for the typical value for a +12V Supply XO5085.
10/11/12	1	BRM	Updated the Warm-up Time specification and Conditions
10/05/12	0	BRM	Original Release.