



Specification for a Sine Output Thru-Hole OCXO
MtronPTI P/N: XO5081-062

Electrical Specifications:

Unless otherwise specified; $T = +25^{\circ}\text{C}$, $V_S = +12\text{V}_{\text{DC}}$, $V_{\text{Tune}} = +5.0\text{V}_{\text{DC}}$, Load= 50 Ω

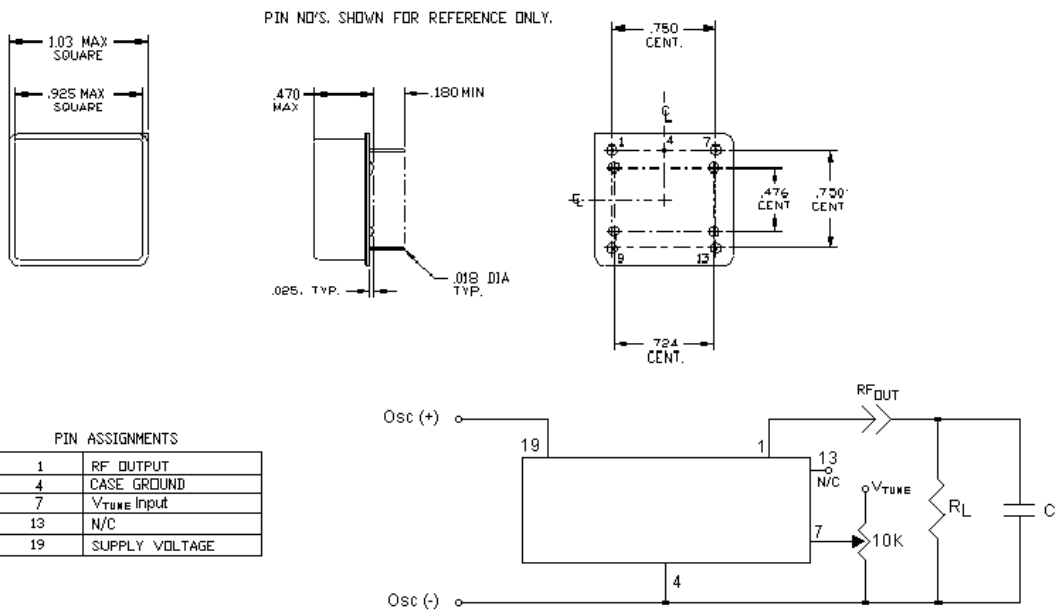
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F_0		100.00000		MHz	
Frequency Stabilities						
vs. Temperature Range		-0.2		+0.2	ppm	0°C to +70°C
Aging/Year		-1		+1	ppm	After 30-days operation
Aging Over 10-years		-10		+10		
RF Output						
Output Type						Sinewave
Output Load			50		Ω	$\pm 10\%$
Level	V_{OH}	+7			dBm	
Frequency Adjustment						
Tuning Method						External 10K Ω Potentiometer
Tuning Slope						Positive
Tuning Voltage	V_{Tune}	0	5.0	+10	V_{DC}	Externally Sourced
Modulation Bandwidth				1	kHz	
Tuning Range		-10		+10	ppm	Sufficient for 10-years correction all causes
Other Parameters						
SSB Phase Noise (under static conditions)				-60	dBc/Hz	@ 1Hz Offset
				-90		@ 10Hz Offset
				-120		@ 100Hz Offset
				-145		@ 1kHz Offset
				-165		@ 10kHz Offset
				-165		@ 100kHz Offset
				-165	@ 1MHz Offset	
Warm-up Time	$\Delta F/F$			3	Minutes	To be within $\pm 100\text{ppb}$ @ 25°C of the frequency @ 1-hour after power on
Supply Voltage & Power Consumption						
Supply Voltage	V_S	11.4	12.0	12.6	V_{DC}	
Power Consumption				1.8	Watts	Steady state @ 25°C, in still air
				4.8	Watts	In still air @ turn on

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Environmental Conditions:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	OTR	0		+70	°C	
Storage Temperature	STR	-40		+85	°C	
Vibration (non-operating)	5g, 10Hz to 200Hz					
Shock (non-operating)	75g 3msec ±1msec					
Humidity	98% non-condensing @ 25°C					
Solderability	Per EIAJ-STD-002					

Mechanical and Pinout Information:



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
11/22/11	1	BRM	Updated Frequency Adjustment Specification & Outline Drawing to Reflect 10KΩ Potentiometer Tuning
11/16/11	0	BRM	Original Release.