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Specification for a 1.00GHz Sine wave Output OCXO

MtronPTI P/N: XO9095-014

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		1.00		GHz	
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-100		+100	ppb	Over the Operating Temperature Range
Daily Aging			3.0		ppb	After 30-days Power On
1 Year Aging			0.3		ppm	
10-Years Aging				+2.0	ppm	
Retrace			±100		ppb	24 hours OFF and after 30 minutes ON
Allan Deviation			1E-10			0.1 sec to 10 sec
RF Output						
Output Type		Sinewave				
Output Level		+10	+12	+14	dBm	Over operating temperature
Output Load			50		Ω	±10%
Additional Parameters						
Control Voltage(V _c)		0		4.5	V	
Tuning			±1.5		ppm	
Absolute Pull Range (APR)		±1.0			ppm	If used in PLL, shows what reference instability it can tolerate to lock over life
Tuning slope		Positive				
Input Impedance		10			kohm	At V _c pin
Modulation Bandwidth		150			Hz	
V _{ref}			4.5		V	Source current : 1mA max.
Phase Noise (Under Static Conditions)				-70	dBc/Hz	10Hz Offset
				-105	dBc/Hz	100Hz Offset
				-135	dBc/Hz	1kHz Offset
				-147	dBc/Hz	10kHz Offset
				-152	dBc/Hz	100kHz Offset
Harmonics				-15	dB	
Sub-Harmonics			-50		dB	
Spurious				-80	dB	
g-sensitivity				±2.0	ppb/g	Worst case axis
Warm-up time			3	5	minutes	Test Condition(@ 25°C): Oscillator turned ON after 24hrs OFF. Frequency change 5 minutes after turn ON will be within ±0.1ppm of Long-term stable nominal frequency.
Start-up time				400msec	sec	Output level to be 90% of max output level at -40C

Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+85	°C	Full Specification Compliance
Operating Voltage	V _{CC}	+4.75	+5.0	+5.25	V _{DC}	



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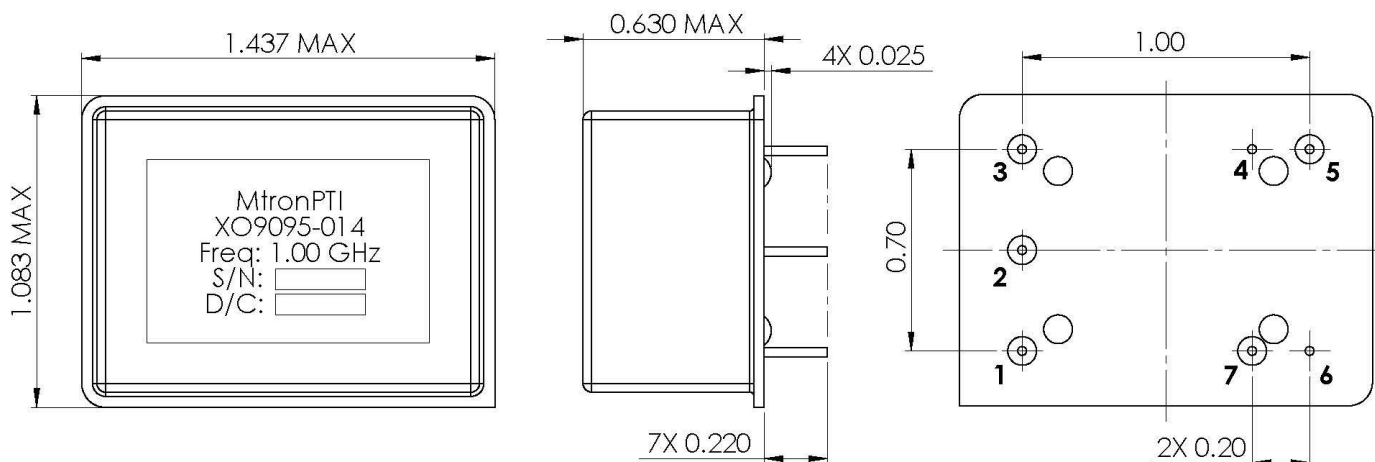
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Power Consumption			1.0	1.75	Watts	Steady state @ 25°C, In Still Air
			2.5		Watts	@ Start-up @ -30C
Absolute Maximum Ratings (operable only)						
Storage Temperature	STR	-50		+95	°C	
Output Load		45	50	55	Ω	

Environmental Conditions:

Seal	Hermetic
Mechanical Shock	Per MIL-STD-202, 30G, 11ms
Vibration	Per MIL-STD-202, 5G 50Hz to 2KHz

Mechanical, Marking and Layout Information:



PIN	FUNCTION
1	Vc
2	Vref
3	Vcc
4	GND
5	RF Output
6	GND
7	N/C or not present

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES

DECIMALS
 .XX ± .01
 .XXX ± .005
 DO NOT SCALE DRAWING

Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
04-18-23	B	AR	Updated Phase Noise
02-08-23	A	DPD	Preliminary Release