

**ELECTRICAL SPECIFICATIONS**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F <sub>0</sub>	500		2000	MHz	
<b>Frequency Stabilities</b>						
vs. Temperature	$\Delta F/F$	-100		+100	ppb	Over the Operating Temperature Range
vs. Supply Voltage		-10		+10	ppb	±5% change in Supply Voltage
Daily Aging		-5.0		+5.0	ppb	After 30-days operation
Yearly Aging		-0.5		+0.5	ppm	
20-Years Aging		-2.0		+2.0	ppm	
Retrace		-100		+100	ppb	24 hours OFF and after 30 minutes ON
Short Term Stability			1		x10 <sup>-10</sup>	0.1 sec to 10 sec
<b>RF Output</b>						
Output Type		Sinewave				
Output Load			50		Ω	±10%
Level	V <sub>OH</sub>	+10	+12	+14	dBm	In a 50Ω load
<b>Frequency Adjustment</b>						
Control Voltage	V <sub>c</sub>	0	2.25	4.5	V	
Tuning Range			+/-2.5		ppm	
Tuning Slope		Positive				
Input Impedance		10			kΩ	At V <sub>c</sub> pin
Modulation Bandwidth		150			Hz	
V <sub>ref</sub>			4.5		V	
<b>Phase Noise and G-Sensitivity</b>						
Phase Noise (Under Static Conditions, Measured at 1.28GHz)				-76	dBc/Hz	10Hz Offset
				-110		100Hz Offset
				-135		1kHz Offset
				-151		10kHz Offset
				-154		100kHz Offset
Harmonics				-45	dBc	
Sub-Harmonics				-45	dBc	
Spurious				-80	dBc	
G-sensitivity				0.5	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 ±0.1 ppm of Long-term stable nominal frequency.
Start-up time				1	sec	Output level to be 90% of max output level

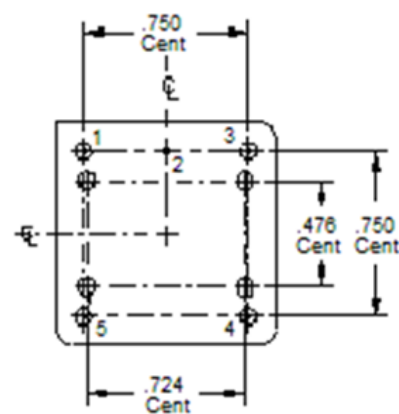
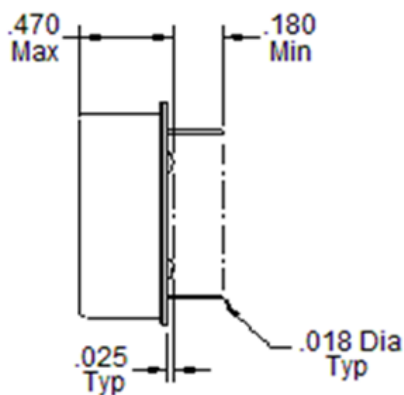
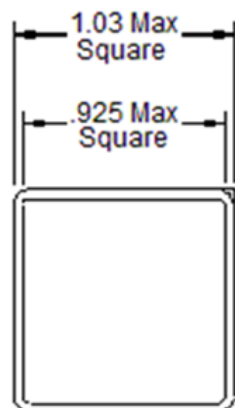
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Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
<b>Temperature, Supply Voltage &amp; Power Consumption</b>						
Operating Temperature	OTR	-54		+71	°C	Full Spec. Compliance
Supply Voltage	Vs	+4.75	+5.0	+5.25	V <sub>DC</sub>	
Power Consumption				1.6	Watts	@ Steady state @ 25°C, In Still Air
			2.5		Watts	@ Start-up @ -30°C
<b>Absolute Maximum Ratings (operable only)</b>						
Supply Voltage				+5.5	VD	
Operating Temperature		-55		+90	°C	
Storage Temperature	STR	-55		+100	°C	
Output Load		45	50	55	Ω	

## ENVIRONMENTAL CONDITIONS

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

## MECHANICAL AND PIN OUT INFORMATION



Pin Numbers Shown For Reference Only  
All Dimensions are in Inches

Part Marking	
Line 1	MtronPTI
Line 2	XO9095-0xx
Line 3	xxxMHzxxx
Line 4	Serial Number
Line 5	Date Code

Pin	Function
1	RF Output
2	Case Ground
3	Vtune
4	Vref
5	Supply Voltage

**Data Sheet Revision Table**

Date	Rev	Author	Details of Revision
08/29/23	A	AR	Original Release.

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