

Specification for a 1.28GHz Sine wave Output OCXO
MtronPTI P/N: XO9095-002R

Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency (RF Output)	F _O		1.28		GHz	
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-100		+100	ppb	Over the Operating Temperature Range
vs. Supply voltage variation		-10		+10	ppb	5% change in supply voltage
Daily Aging		-5.0		+5.0	ppb	After 30-days Power On
1 Year Aging		-0.5		+0.5	ppm	
20-Years Aging		-2.0		+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	
Output Load			50		Ω	±10%
Additional Parameters						
Control Voltage(V _c)		0	2.25	4.5	V	
Tuning			+/- 2.5		ppm	
Tuning slope		Positive				
Input Impedance		10			kohm	At V _c pin
Modulation Bandwidth		150			Hz	
V _{ref}			4.5		V	
Phase-Noise (Under Static Conditions)				-76	dBc/Hz	10Hz Offset
				-110	dBc/Hz	100Hz Offset
				-135	dBc/Hz	1kHz Offset
				-151	dBc/Hz	10kHz Offset
				-154	dBc/Hz	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 ±0.1ppm of Long-term stable nominal frequency.
Start-up time				1	sec	Output level to be 90% of max output level

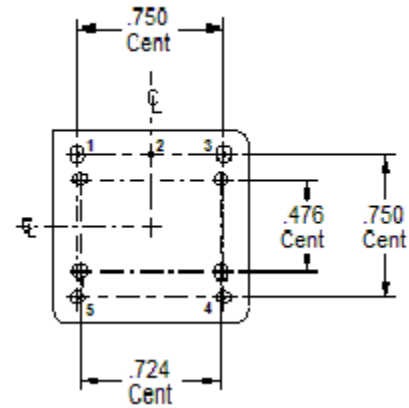
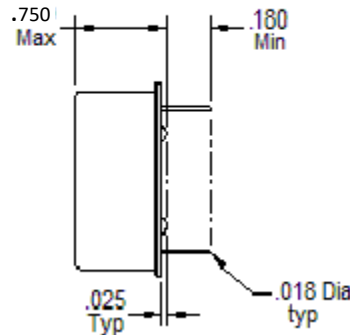
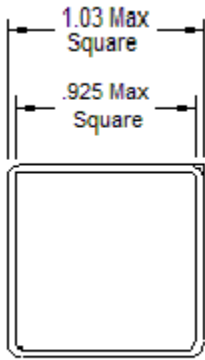
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Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-54		+71	°C	Full Specification Compliance
Operating Voltage	VCC	+4.75	+5.0	+5.25	V _D	
Power Consumption				1.6	Watts	Steady state @ 25°C, In Still Air
			2.5		Watts	@ Start-up @ -30C
Absolute Maximum Ratings (operable only)						
Supply voltage				+5.5	V _D	
Operable Temperature Range		-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, Marking and Layout Information:



Pin	Function
1	RF Output
2	Case Ground
3	V _{TUNE}
4	V _{REF}
5	Supply Voltage

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMALS
.XX ± .01
.XXX ± .005

Part Marking	
Line 1	MtronPTI
Line 2	XO9095-002R
Line 3	1280.000MHz
Line 4	Serial Number
Line 5	Date Code

Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
07-01-19	C	BRR	Output level 10dBm minimum & 14dBm maximum added.
06-20-19	B	BRR	Output level changed from 10 to 12dBm, Operating Temp. from -40/70 to -54/71, Operable Temp high from 85 to 90.
06-19-19	A	BRR	Preliminary Release