



Specification for a Stratum 3E HCMOS Thru-Hole OCXO MtronPTI P/N: XO5084-043R

Electrical Specifications:

Parameter	Symbol	Min.	Тур.	Max.	Units	Conditions	
Nominal Frequency	Fo		12.800000		MHz		
Initial Accuracy	Fi	-200		+200	ppb	@ 25°C at time of shipment	
Frequency Stabilities							
						Over the operating	
vs. Temperature	∆F⊤/F			10	ppb	temperature range	
						See Figure 2	
vs. Supply Voltage	$\Delta F_{Vs}/F$	-5		+5	ppb	5% change in Vs	
vs. Load	$\Delta F_{Load}/F$	-1		+1	ppb	10% change in load @25°C	
Short Term Stability			1 x 10 ⁻¹¹		per sec.	Allan Variance (in still air) <i>Tau</i> = 0.1 <i>sec</i> & 1 <i>sec</i>	
Daily Aging		-1		1	ppb/day	@ Time of Shipment	
1 st Year Aging		-100		+100	ppb	After 30 days continuous operation @ 25°C	
			RF Outpu	t			
Output Type			HCMOS				
Output Load			10		рF		
Symmetry (duty cycle)	TDC	40	50	60	%	@ 50% of waveform	
Rise/Fall Time	T _R /T _F			7	nsec	From 10% to 90% Vout	
Logic "1" Level	Vон	90% Vs			V	HCMOS Load	
Logic "0" Level	Vol			10% Vs	V	HCMOS Load	
		Ad	ditional Para	meters			
			-130		dBc/Hz	100 Hz	
Dhasa Naisa			-145		dBc/Hz	1 kHz	
T Hase Noise			-150		dBc/Hz	10 kHz	
			-150		dBc/Hz	100 kHz	
Warm-up Time						Time to be within 50ppb of	
(Restabilization)				240 Sec	Seconds	the frequency after 30-min.	
(Restablization)						of operation @ 25°C	
				250 ms		The OCXO will achieve an	
					250 msec	HCMOS output signal within	
						the time specified but it will	
Start Up Time						not meet all electrical	
						performance parameters	
						until the Warm-up time	
		_				specified has passed	
		Tempera	ature and Su	pply Voltage			
Operating Temperature	I _A	-40		+85	 ⊃°		
Storage Temperature	Ts	-55		+125	°C		
Operating Voltage	Vs	3.135	3.3	3.465	V _{DC}		
Power Consumption				1.5	Watts	Steady state @ 25°C, In Still Air	
				4.0	Watts	@ Warm-up	



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Environmental Conditions:

Level 1
500G's per MIL-STD-202F, Method 213B, Test Condition D
0.06" D.A. or 10G's Peak,10 to 500Hz,per MIL-STD-202F, Method 204D,
Test Condition A
5.35G's RMS,20 to 200Hz,per MIL-STD-202F, Method 214, Test Condition 1A,
15-minutes each axis
Hermetic
Per MIL-STD-202F, Method 215J
Full RoHS Compliance

Mechanical, Marking and Layout Information:

Part Marking		
Line 1	MtronPTI	
Line 2	XO5084-043R	
Line 3	12.8000MHz	
Line 4	Serial Number	
Line 5	Date Code	

Legend		
уу	Year	
ww	Work Week	

Pin	Function
1	RF Output
2	Case Ground
3	N/C
4	N/C
5	Supply Voltage







Pin Numbers Shown For Reference Only All Dimensionsare in Inches





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Wander Generation (MTIE):



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
8/30/12	4	BRM	Added a Start Up specification
08/22/12	3	BRM	Removed the Solder Condition Specification and Solder Profile graph as these are not necessary for a thru-hole OCXO
08/17/12	2	BRM	Corrected a typographical error in the comment section of the Initial Accuracy specification point.
01/09/12	1	BRM	Corrected pin out table to make Pin 3 a N/C & added a revised outline drawing
01/06/12	0	BRM	Original Release