

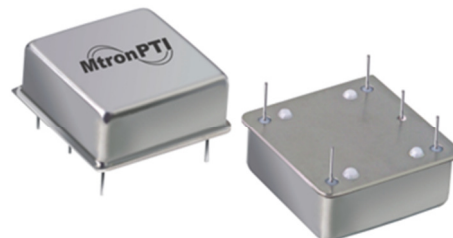
Specification for a Sine Output Thru-Hole OCXO MtronPTI P/N: XO5085-LPOCXOs

Frequency offering: 50MHz to 200MHz

High Stability, Low Aging and Ultra-Low Phase Noise

Custom features: Oven Monitor, Oscillator Enable Logic, low g-sens available

Applications: Test Equipment, Satcom, RADAR



Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		100.000000		MHz	
Frequency Stabilities						
vs. Temperature	ΔF _T /F	-100		+100	ppb	Over the Operating Temperature Range
Daily Aging		-5		+5	ppb	After 30-days Power On
1 Year Aging		-0.5		+0.5	ppm	
20-Years Aging		-2		+2	ppm	
RF Output						
Output Type		Sinewave				
Output Level			+12		dBm	
Output Load			50		Ω	±10%
Frequency Adjustment						
Adjustment Method		External Voltage				
Adjustment Voltage	V _{TUNE}	0		+10	V _{DC}	
Adjustment Range		±1.0			ppm	
Adjustment Slope		Positive				
Additional Parameters						
Phase Noise (Under Static Conditions)	Standard Phase Noise					
			-95		dBc/Hz	10Hz Offset
				-125	dBc/Hz	100Hz Offset
				-153	dBc/Hz	1kHz Offset
				-163	dBc/Hz	10kHz Offset
				-167	dBc/Hz	100kHz Offset
				-167	dBc/Hz	1MHz offset
	Low Phase Noise					
			-97		dBc/Hz	10Hz Offset
				-128	dBc/Hz	100Hz Offset
				-158	dBc/Hz	1kHz Offset
				-170	dBc/Hz	10kHz Offset
				-170	dBc/Hz	100kHz Offset
				-170	dBc/Hz	1MHz offset
	Ultra-Low Phase Noise					
			-100		dBc/Hz	10Hz Offset
				-132	dBc/Hz	100Hz Offset
				-162	dBc/Hz	1kHz Offset
				-175	dBc/Hz	10kHz Offset
				-178	dBc/Hz	100kHz Offset
				-178	dBc/Hz	1MHz Offset

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g-Sensitivity				0.5	ppb/g	Worst case axis
Harmonics				-30	dBc	
Spurious				-75	dBc	
Warm-up Time				5	minutes	To within ± 0.1 ppm of the frequency after 1-hour of operation @ 25°C

Additional Parameters (continued)

Temperature, Supply Voltage & Power Consumption

Operating Temperature	OTR	-20		+75	°C	Full Specification Compliance
Storage Temperature	STR	-55		+85	°C	
Operating Voltage	V _{CC}	+11.4	+12.0	+12.6	V _{DC}	
Power Consumption			1.2		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

Environmental Conditions:

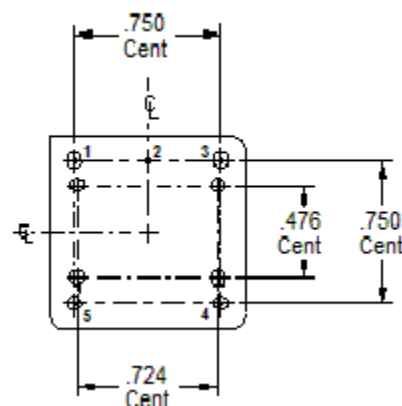
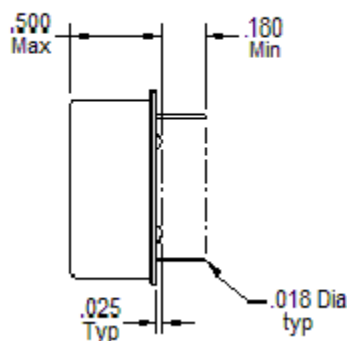
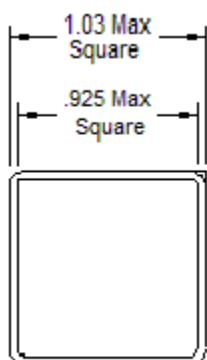
Seal	Hermetic
RoHS	Full RoHS Compliance

Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5085-TBD
Line 3	100.0000MHz
Line 4	Serial Number
Line 5	Date Code

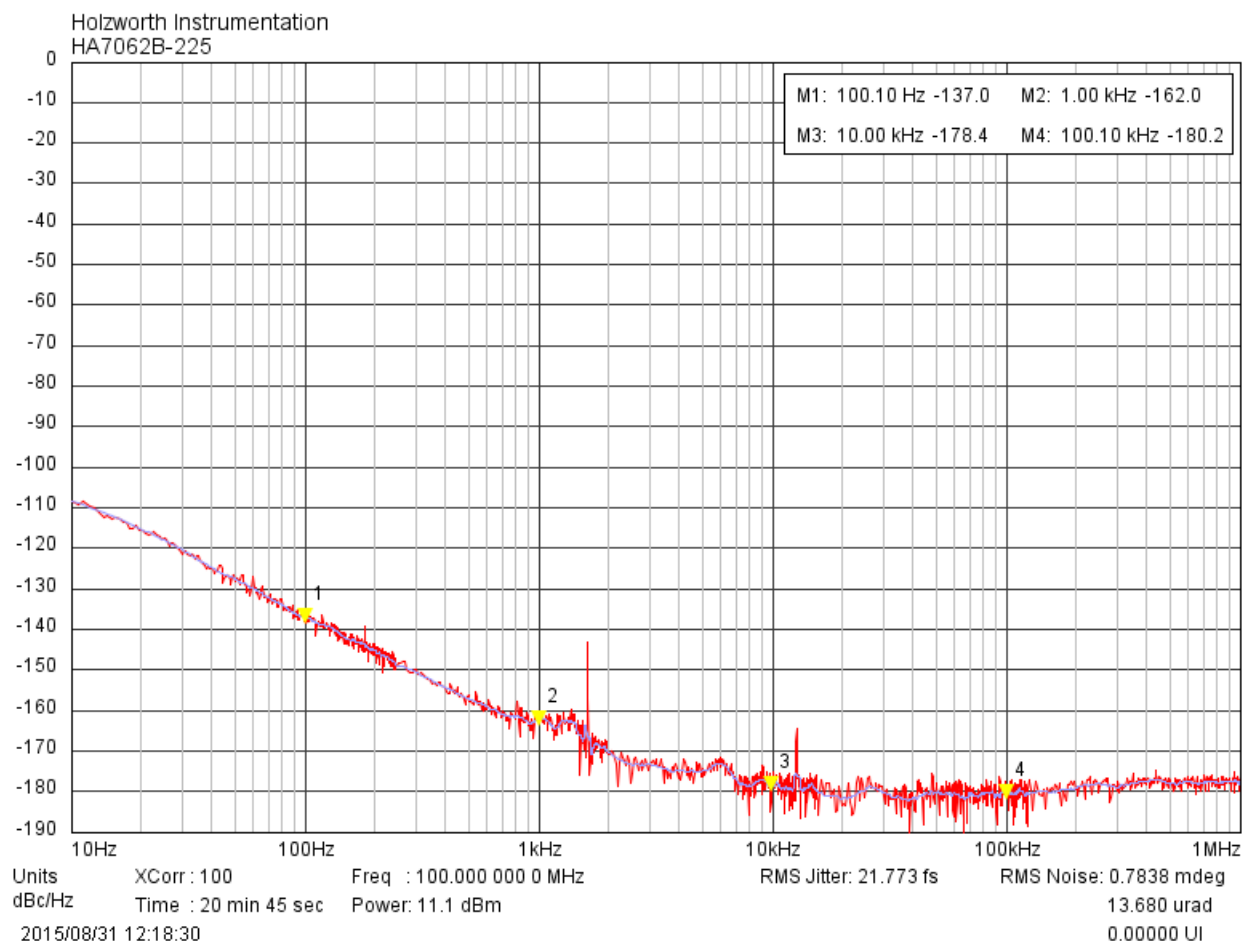
Legend	
yy	Year
ww	Work Week

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



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Representative Phase Noise Plot (100MHz):



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
09-10-15	A	DPD	Original Draft.