

Specification for a Sinewave Output 160MHz OCXO MtronPTI P/N: XO5085-160MHz

Ultra-Low Phase Noise, High Stability and Low Aging

Custom options available: Phase Noise, g-sens (<0.5ppb/ g worst case axis)

Supports custom shock and vibe profiles

Applications: RADAR and Satcom



Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F_O		160.000000		MHz	
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-150		+150	ppb	Over the Operating Temperature Range
vs. Supply voltage variation		-30		+30	ppb	+/-250mV change in supply voltage
1 Year Aging		-1.0		+1.0	ppm	
10-Years Aging		-10.0		+10.0	ppm	
RF Output						
Output Type			Sinewave			
Output Level		+8	+10	+12	dBm	
Output Load			50		Ω	$\pm 10\%$
Frequency Adjustment						
Adjustment Method			External Voltage			
Adjustment Voltage	V_{TUNE}	0		+10	V_{DC}	
Adjustment Range			Sufficient for all causes over 10-years			Over all conditions
Adjustment Slope			Positive			
Additional Parameters						
Phase Noise (Under Static Conditions)				-85	dBc/Hz	10Hz Offset
				-120	dBc/Hz	100Hz Offset
				-145	dBc/Hz	1kHz Offset
				-163	dBc/Hz	10kHz Offset
				-170	dBc/Hz	100kHz Offset
				-175	dBc/Hz	1MHz Offset
				-175	dBc/Hz	10MHz Offset
G-sensitivity			1.0		ppb/g	
Harmonics				-25	dBc	
Spurious				-80	dBc	
Warm-up Time				5	minutes	To within ± 0.1 ppm of the frequency after 1-hour of operation @ 25°C
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+85	°C	Full Specification Compliance
Storage Temperature	STR	-55		+95	°C	
Operating Voltage	V_{CC}	+11.75	+12.0	+12.25	V_{DC}	

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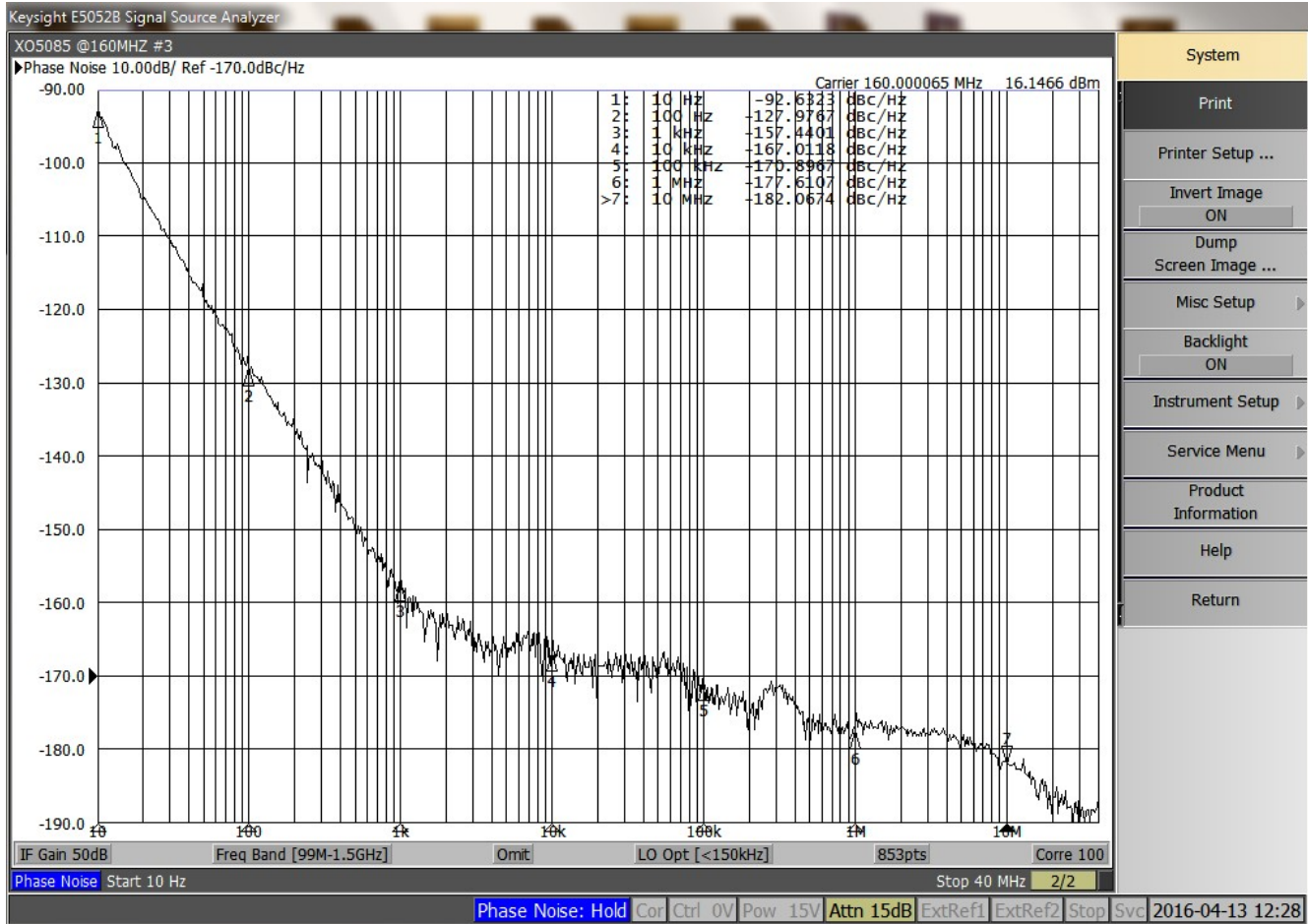
Power Consumption				1.5	Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

Environmental Conditions:

Seal	Hermetic
RoHS	Full RoHS Compliance*
Vibration (survival)	Per MIL-STD 202G, Method 204, Condition A
Shock (survival)	Per MIL-STD 202G, Method 213, Condition C
Solderability	Per EIAJ-STD-002

*: No pure tin and other material requirements supported

Representative Phase Noise Plot:



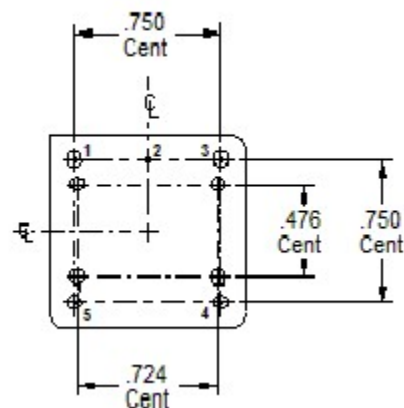
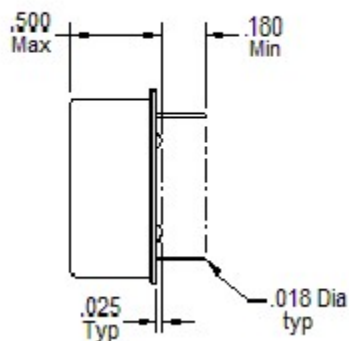
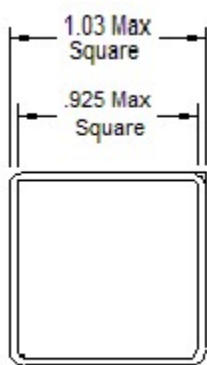
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Mechanical, Marking and Layout Information:

Part Marking	
Line 1	MtronPTI
Line 2	XO5085-0XXR
Line 3	160.0000MHz
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	N/C
5	Supply Voltage



Data Sheet Revision Table:

Date	Rev.	Orig.	Details of Revision
04-12-16	A	DPD	Original release