

**Specification for a Sinewave Output Thru-Hole  
OCXO MtronPTI P/N: XO5085-070R**

**Electrical Specifications:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F <sub>O</sub>		100.0000		MHz	
Frequency Stabilities						
vs. Temperature	ΔF <sub>T</sub> /F	-100		+100	ppb	Over the Operating Temperature Range
vs. Supply voltage variation		-30		+30	ppb	5% change in supply voltage
Daily Aging		-5		+5	ppb	After 30-days Power On
1 Year Aging		-0.5		+0.5	ppm	
20-Years Aging		-2.0		+2.0	ppm	
RF Output						
Output Type		Sinewave				
Output Level			7		dBm	
Output Load			50		Ω	±10%
Frequency Adjustment						
Adjustment Method		External Voltage				
Adjustment Voltage	V <sub>TUNE</sub>	0		+5	V <sub>D</sub>	
Adjustment Range		±1.5			ppm	Over all conditions
Adjustment Slope		Positive				
Additional Parameters						
Phase Noise (Under Static Conditions)				-97	dBc/Hz	10Hz Offset
				-130	dBc/Hz	100Hz Offset
				-158	dBc/Hz	1kHz Offset
				-167	dBc/Hz	10kHz Offset
				-170	dBc/Hz	100kHz Offset
				-170	dBc/Hz	1MHz Offset
				-170	dBc/Hz	10MHz Offset
G-sensitivity				0.3	ppb/g	
Harmonics				-25	dBc	
Spurious				-75	dBc	
Warm-up Time				5	minutes	To within ±0.1ppm 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		+85	°C	
Operating Voltage	V <sub>CC</sub>	+4.75	+5.0	+5.25	V <sub>D</sub>	
Power Consumption			1.5		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

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**Environmental Conditions:**

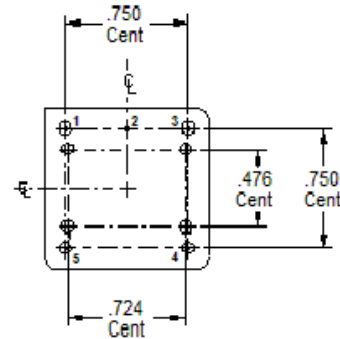
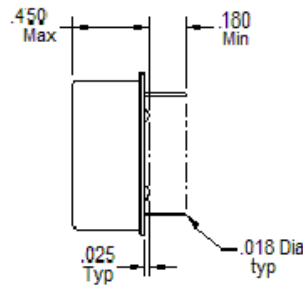
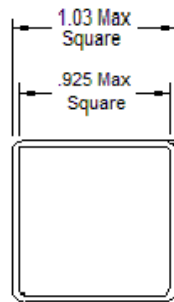
Seal	Hermetic
RoHS	Full RoHS Compliance

**Mechanical, Marking and Layout Information:**

Part Marking	
Line 1	XO5085-070R
Line 2	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 <sub>TUNE</sub>
4	N/C
5	Supply Voltage



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

**Data Sheet Revision Table:**

Date	Rev.	Orig.	Details of Revision
05-22-17	C	DPD	PN spec updated to -167dBc/Hz @ 10kHz offset from -160dBc/Hz @ 10kHz
02-23-17	B	DPD	Height updated from 0.500 mil to 0.450 mil
02-20-17	A	DPD	Original release