



# XO5085 Series Low Phase Noise OCXOs

## FEATURES

Frequency Range : 50 to 166.67MHz

Low Phase Noise

Low Aging

Low G and Low Spurious

## APPLICATIONS

RADAR

Satcom

Electronic Warfare

Test Equipment

## SPECIFICATIONS at 100MHz

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F <sub>0</sub>		100.000000		MHz	
Frequency Stabilities						
vs. Temperature	$\Delta F_T/F$	-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		$\Omega$	±10%
Frequency Adjustment						
Adjustment Method		External Voltage				
Adjustment Voltage	V <sub>TUNE</sub>	0		+10	V <sub>DC</sub>	
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
				-172	dBc/Hz	10kHz Offset
				-178	dBc/Hz	100kHz Offset
				-178	dBc/Hz	1MHz Offset

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
g-Sensitivity				0.3	ppb/g	Worst case axis; Various options available
Harmonics				-30	dBc	
Spurious				-75	dBc	
Warm-up Time				5	minutes	To within $\pm 0.1$ ppm of the frequency after 1-hour of operation @ 25°C

Additional Parameters (continued)

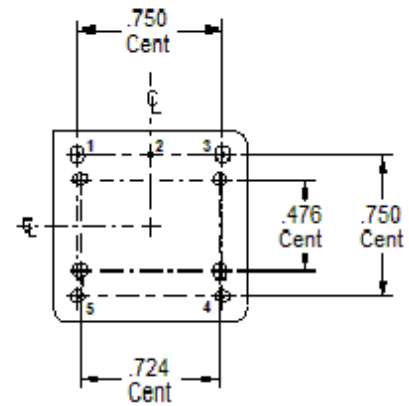
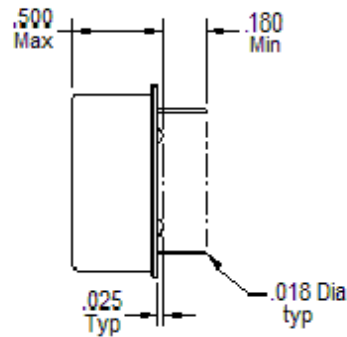
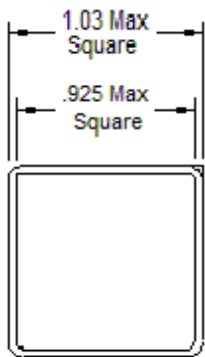
Temperature, Supply Voltage & Power Consumption

Operating Temperature	OTR	-20		+75	°C	Full Specification Compliance
Storage Temperature	STR	-55		+85	°C	
Operating Voltage	Vcc	+11.4	+12.0	+12.6	Vdc	
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

## Outline



Pin	Function
1	RF Output
2	Case Ground
3	V <sub>TUNE</sub>
4	NC
5	Supply Voltage