



XO5503 Series E-Vibe Compensated OCXOs

FEATURES

Frequency: 10 and 100MHz

Vibration Compensated

Low Phase Noise

Low Aging

APPLICATIONS

RADAR

Satcom

Electronic Warfare

SPECIFICATIONS at 100MHz

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F_0		100.000000		MHz	
Frequency Stability						
Over Temperature Range		-100		+100	ppb	Over operating temp(-40C to +85C)
vs Supply Voltage Change				+15	ppb	$\pm 5\%$ change in V_s
vs Load Change				+15	ppb	$\pm 5\%$ change in Load
Aging				± 250	ppb	1 st year
[After 30 days of operation]				± 200	ppb	Per year after 1 st year
RF Output						
Output Type	Sinewave					
Output Level		+5.0	+7.0	+9.0	dBm	Into a nominal 50 Ω load
Output Load			50		Ω	$\pm 5\%$
Harmonics				-30	dBc	
Frequency Adjustment						
Adjustment Method	External Voltage					
Tuning Voltage	V_{TUNE}	0		+5.0	V_{DC}	
Tuning Range			± 2.5		ppm	
Input Impedance		50			$K\Omega$	
Tuning Slope		Positive				
Phase Noise						
SSB Phase Noise – Static				-97	dBc/Hz	@ 10Hz Offset
				-127		@ 100Hz Offset
				-150		@ 1kHz Offset
				-162		@ 10kHz Offset;
				-165		@ 100kHz Offset;
SSB Phase Noise – With Random Vibration (operational) (any axis)				-97	dBc/Hz	@ 10Hz Offset
				-127		@ 100Hz Offset
				-150		@ 1kHz Offset
				-153		@ 2kHz Offset
				-162		@ 10kHz Offset
			-165	@ 100kHz Offset		

RandomVibration (operational)						
Power Spectral Density			0.012		g ² /Hz	@ 10Hz
			0.012			@ 40Hz
			0.020			@ 52Hz
			0.020			@ 500Hz
			0.00126			@ 2000Hz
Additional Parameters						
Supply Voltage	V _S	11.4	12.0	12.6	V _{DC}	
Power Consumption				5	Watts	@ Start-up
				2	Watts	@ +25°C Steady State
Operating Temperature		-40		+85	°C	

Outline

