



XO8085 Series Integrated Frequency References

FEATURES

SWaP
Multi-Output Options
High Stability
Ultra Low Phase Noise
Low g-sensitivity

APPLICATIONS

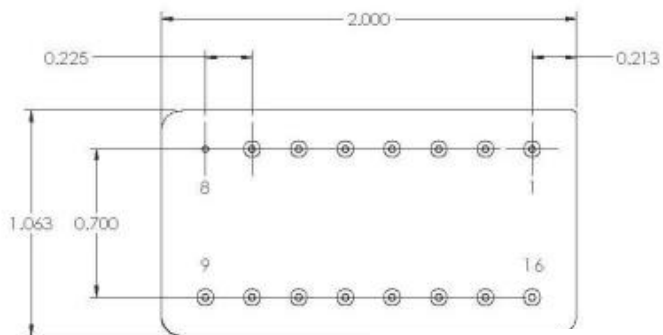
Test and Measurements
Satcom
Radar Systems
Avionics

10MHz Reference Input and Four 100MHz Outputs

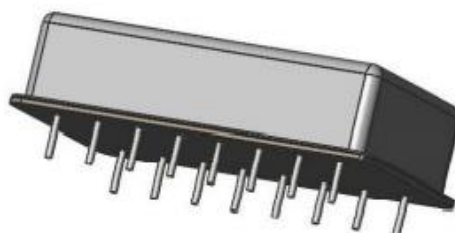
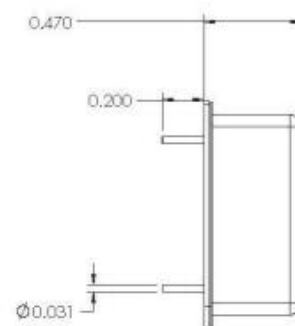
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F_o		100.00		MHz	
Frequency Stability						
Vs. Temperature Range		-100		+100	ppb	Over operating temp(-40C to +85C)
Vs. Supply Voltage variation		-30		+30	ppb	$\pm 5\%$ change in V_s
vs Load Change		-5		+5	ppb	$\pm 5\%$ change in Load
Aging [After 30 days of operation]		-0.5		+0.5	ppm	1 Year Aging
		-2.0		+2.0	ppm	20-Years Aging
RF External Reference (10MHz)						
RF Input Level		-3	0	+3	dBm	Customer to choose the signal Level between 0 ± 3 dB
RF Output (100 MHz)						
Output Type	Sinewave					On Port 1, Port 2, Port 3, and Port 4 simultaneously
Output Level		+13			dBm	On Port 1, Port 2, Port 3, and Port 4 simultaneously
Output Load			50		Ω	$\pm 10\%$
Port Isolation		30			dB	
Output VSWR					1.5:1	

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Additional Parameters						
Phase Noise (Under Static Conditions)				-105	dBc/Hz	@ 10Hz Offset
				-130		@ 100Hz Offset
				-158		@ 1kHz Offset
				-167		@ 10kHz Offset;
				-170		@ 100kHz Offset;
				-170		@ 1MHz Offset
Harmonics				-25	dB	
Spurious				-75	dB	
g-sensitivity				0.3	ppb/g	By Design
Warm-up Time				5	minutes	Test Condition (@ 25°C): Oscillator turned ON after 24hrs OFF. Frequency change 5 minutes after turn ON will be within ±0.05ppm of Long-term stable nominal frequency.
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+80	°C	Full Specification Compliance
Storage Temperature	STR	-55		+100	°C	
Operating Voltage	Vcc	+4.75	+5.0	+5.25	VD	
Power Consumption			1.5		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up

Outline:



DIMENSIONS ARE IN INCHES



PIN	Connection
1,5,12,16	NC
2	PORT 1
3,8,10,11,14	GROUND
4	PORT 3
6	FAULT INDICATOR
7	REFERENCE INPUT
9	+5V
10	PLL TEST POINT
13	PORT 4
15	PORT 2