

Features and Benefits

Low Phase Noise OCXO
 Sine wave output
 Frequency Tuning Input
 3 minutes max warm-up
 20.5x20.5x12mm max

Description

The OCXO2022L family offers a specially designed from 10 to 20MHz crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments

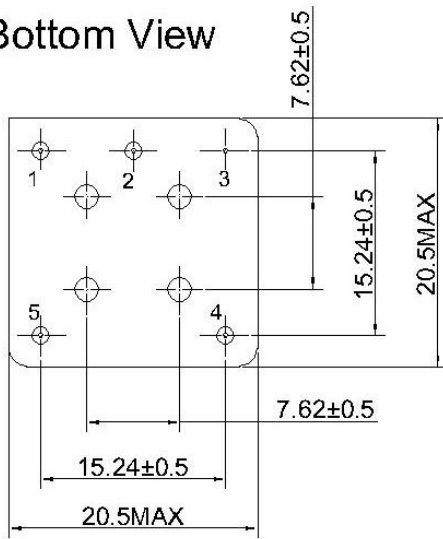
Typical Applications

Ref. for Microwave comm. System
 Signal analyzer reference for internal synthesizers
 SATCOM systems

Mechanical Drawing & Pin Connections

Drawing No: MD140063-1

Bottom View

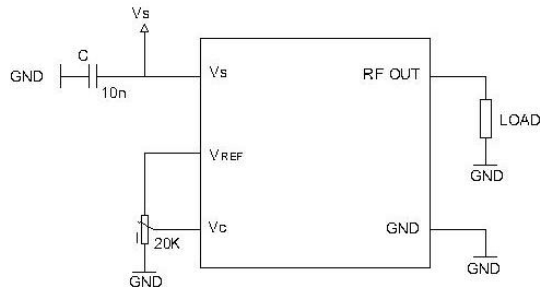
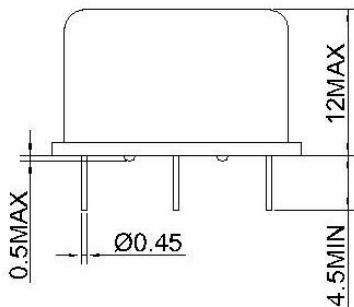


Pin Connections:

Pin	Symbol	Function
1	Vs	Supply Voltage
2	RF OUT	RF Output
3	GND	Ground
4	Vc	Control Voltage(EFC)
5	VREF	Reference Voltage

Unit : mm

Side View



OCXO2022L

Low Phase noise Miniature OCXO

Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F ₀		10		20	MHz	
Standard Frequencies			10.000			MHz	
RF Output							
Output Waveform			Sine wave				
Load	R _L	+/-10%		50		Ohm	
Output Level			+5	+8		dBm	
Harmonics					-25	dBc	
Power Supply							
Voltage	V _{cc}		4.75	5.0	5.25	V	Optional
			11.4	12.0	12.6		
Current Consumption(Steady State)	I _{steady}	@ V _{cc} =5.0V			200	mA	Optional
					100		
Current Consumption(Warm-up)	I _{warm-up}	@ V _{cc} =5.0V			600	mA	Optional
					300		
Warm-up Time@+25°C		Δf _{final} /f ₀ <+/-0.1ppm			3	min	
Frequency Control*							
Electronic Frequency Control(EFC)			+/-0.5	+/-0.8		ppm	
Reference Output	V _{REF}	@ V _{cc} =5.0V		4.0		V	Optional
			@ V _{cc} =12.0V		5.0		
EFC Voltage	V _c		0	V _{REF} /2	V _{REF}	V	
EFC Input Impedance			100			Kohm	
EFC Slope	Δf/V _c		Positive				
Frequency Stability							
Initial Tolerance @+25°C		V _c @ V _{REF} /2		+/-100	+/-200	ppb	
Vs. Operating Temperature Range		Steady state			+/-25	ppb	For more information, Please consult sale
Vs. Supply Voltage Variation(Pushing)		V _s +/-5%			+/-5	ppb	
Vs. Load Change(Pulling)		Load+/-10%			+/-5	ppb	
Aging	Long Term Per day	After 30days operation		+/-0.5	+/-1	ppb	Optional
	Long Term 1 st Year	After 30days operation			+/-50	ppb	Optional
Phase Noise							
Phase Noise @10MHz			@ 1Hz		-100	dBc/Hz	
			@ 10Hz		-130		
			@ 100Hz		-145		
			@1kHz		-150		
			@10kHz ~ 100kHz		-150		
Environmental							
Operating Temperature Range	-55°C to +85°C						
Storage Temperature Range	-55°C to +125°C						
Packing	Palette						
Size	20.5x20.5x12mm max						
Weight	10g max						