

Features and Benefits

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

Description

The OCXO2023L family offers a specially designed from 80 to 125MHz crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments

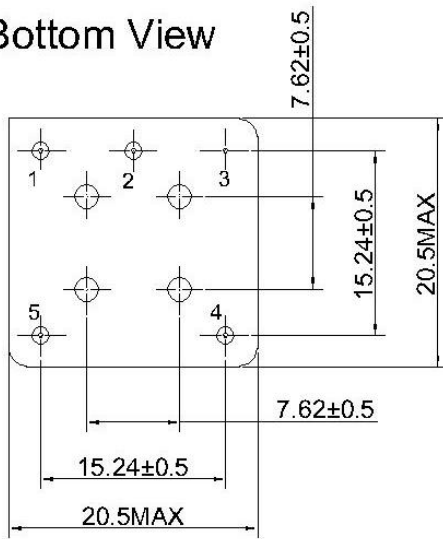
Typical Applications

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

Mechanical Drawing & Pin Connections

Drawing No: MD140063-1

Bottom View

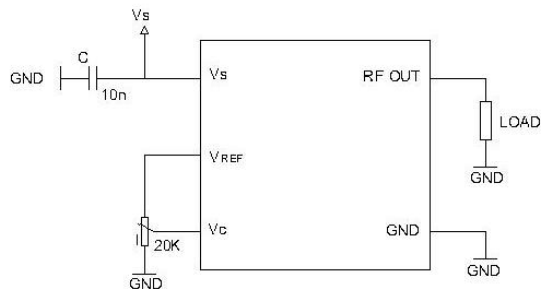
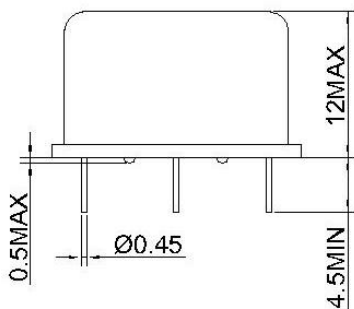


Pin Connections:

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



Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note				
			Min.	Typ.	Max.						
Frequency Range	F ₀		80		125	MHz					
Standard Frequencies			100.000/120.000			MHz					
RF Output											
Output Waveform			Sine wave								
Load	R _L	+/-5%		50		Ohm					
Output Level			+7			dBm					
Harmonics					-30	dBc					
G-Sensitivity		Per Axis			1.0	ppb/g					
Power Supply											
Voltage	V _{cc}		11.4	12.0	12.6	V					
Current Consumption(Steady State)	I _{steady}	@+25°C			100	mA					
Current Consumption(Warm-up)	I _{warm-up}				300	mA					
Warm-up Time@+25°C		$\Delta f_{final}/f_0 < +/-0.1ppm$			3	min					
Frequency Control*											
Electronic Frequency Control(EFC)			+/-1	+/-2		ppm					
Reference Output	V _{REF}			10.0		V					
EFC Voltage	V _c		0		V _{REF}	V					
EFC Input Impedance			100			Kohm					
EFC Slope	$\Delta f/V_c$		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%			+/-10	ppb					
Vs. Load Change(Pulling)		Load+/-5%			+/-5	ppb					
Aging	Long Term Per Day	After 30days operation			+/-2	ppb	Optional				
	Long Term 1 st Year	After 30days operation			+/-200	ppb	Optional				
Phase Noise											
Offset	100MHz					120MHz					Unit
	A	B	C	D	E	A	B	C	D	E	
10Hz	-90	-95	-97	-100	-105	-85	-90	-95	-97	-100	dBc/Hz
100Hz	-125	-130	-132	-135	-137	-118	-122	-125	-127	-130	
1kHz	-150	-153	-155	-157	-158	-148	-150	-151	-153	-155	
10kHz	-160	-160	-160	-163	-165	-160	-160	-160	-161	-163	
>=100kHz	-170	-170	-170	-170	-170	-170	-170	-170	-170	-170	
Environmental											
Operating Temperature Range	-55°C to +85°C										
Packing	Palette										
Size	20.5x20.5x12mm max										
Weight	10g max										