Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 281-870-8822EMAIL:Sales@DynamicEngineers.com

PLXO5050L
Phase Locked Crystal Oscillator

Features and Benefits

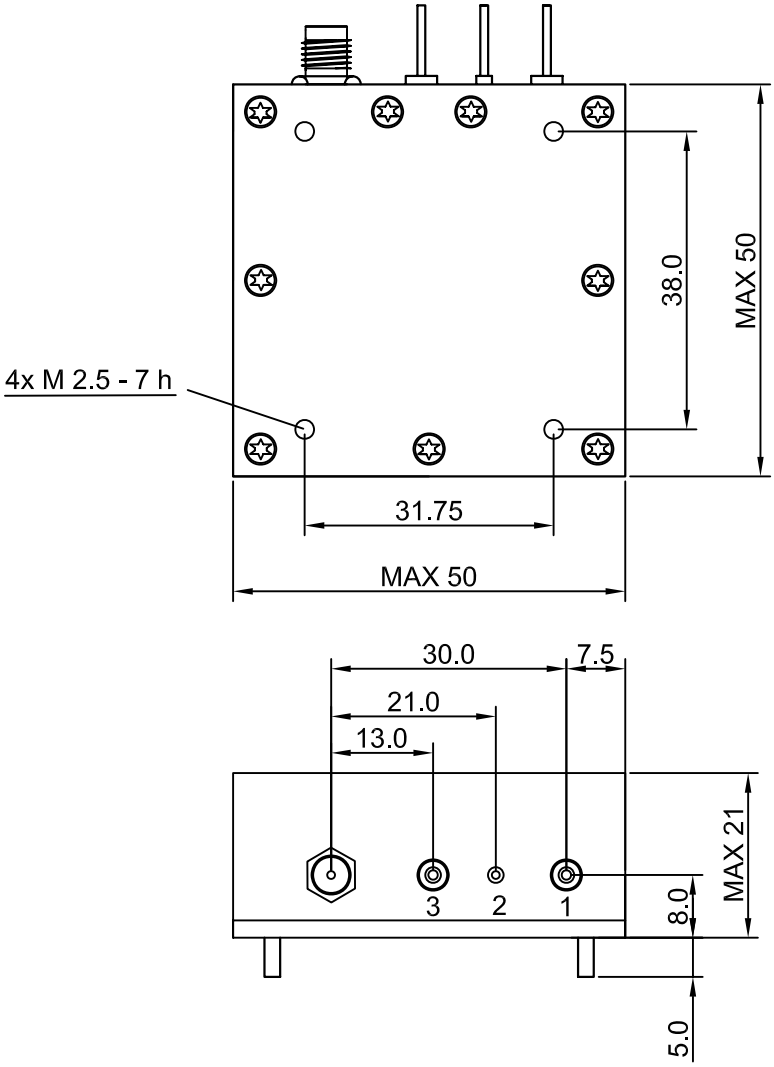
Frequency Range: 3 to 12GHz
Phase Noise (typ.): -120 dBc/Hz at 100 KHz offset
Sine Wave output

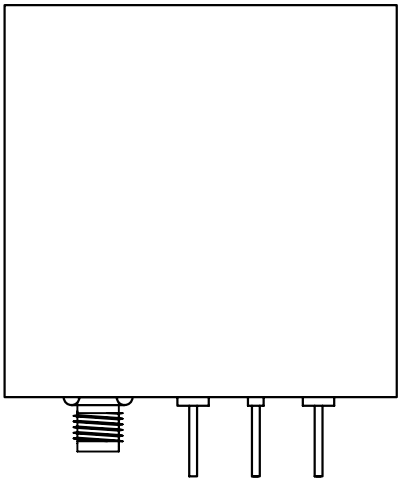
Typical Applications

Microwave Communications LO

Mechanical Drawing & Pin Connections

Drawing No: **MD160080-1**





Pin Connection:

Pin#	Symbol	Function
1	Vs	Supply Voltage
2	GND	Ground
3	LD	Lock Detect Output
SMA	RF OUT	RF Output

Unit : mm
1mm=0.039inch

Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 281-870-8822EMAIL:Sales@DynamicEngineers.com

PLXO5050L
Phase Locked Crystal Oscillator

Specifications

TCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	f_{out}	Multiplication	3		12	GHz	Multiplication factor N depends on output frequency f_{out}
RF Output							
Output Waveform				Sine Wave			
Load	R_L			50		Ω	+/-5%
Output Level			+10	+13		dBm	
Harmonics					-30	dBc	
Sub-harmonics					-40	dBc	
Spurious					-80	dBc	
PLL Products					-60	dBc	
Phase Noise		@ 100 KHz		-120	-110	dBc/Hz	
Lock Detect (LD) Output		Out of Lock		0	1.0	V	
		Locked	2.3	3.3			
Power Supply							
Voltage	V_S		11.4	12.0	12.6	V	
Current Consumption				250	350	mA	
Frequency Stability							
Initial Tolerance at +25°C					±1	ppm	
Vs. Operating Temperature Range				±0.5 to ±5.0 See Ordering System		ppm	
Vs. Supply Voltage Change (pushing)	V_S	V_S ± 5%			±0.1	ppm	
Vs. Load Change (pulling)		R_L ± 5%			±0.1	ppm	
Long Term Aging 1st Year		After 30 days operation			±1.0	ppm	
Environmental Conditions							
Operating temperature range	-40 to +85°C						
Storage temperature range	-55 to +105°C						
Size	50.0 x 50.0 x 21.0 mm max.						
Weight	60g max.						

Ordering System

PLXO5050L-xGHz-yy-zz

Internal Code

x: Frequency
(3.000 to 12.000 GHz)

z: operating temperature range choices
1 = -20 to +70°C
2 = -40 to +85°C

y: stability over operating temperature range
1 = ±0.5 ppm
2 = ±1.0 ppm
3 = ±1.5 ppm
4 = ±2.0 ppm
5 = ±2.5 ppm
6 = ±3.0 ppm
7 = ±3.5 ppm
8 = ±5.0 ppm

Example

PLXO5050L-10.000GHz-2-1

Frequency = 10.00 GHz
Stability Over Operating Temperature Range = ± 1.0 ppm
Temperature Range = -20 to +70°C