



### Features and Benefits

10MHz; +7dBm typ. Low noise output  
Less than ±100ppb over -5°C to +85°C  
Surface mount package  
±3ppm aging over 10 years

### Typical Applications

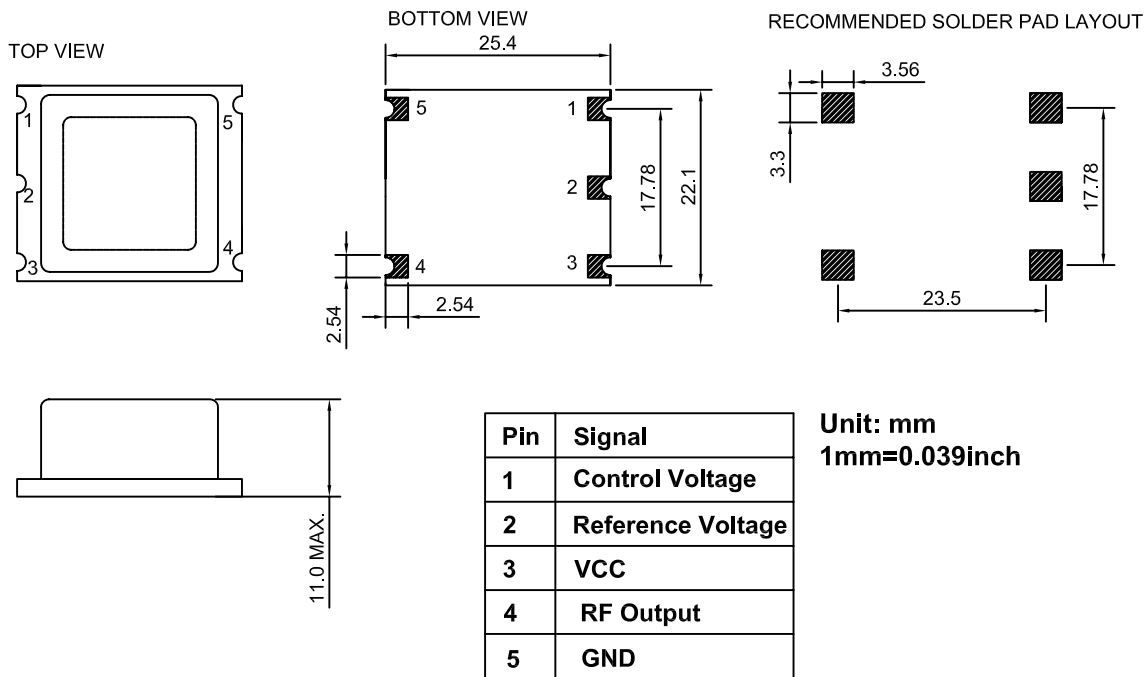
Synthesizers  
Wireless Communication  
SATCOM  
Test Equipment

### Description

Established volume production surface mount OCXO using highly reliable production assembly and crystal manufacturing processes.

### Mechanical Drawing & Pin Connections

Drawing No:MD160044-2





**Specifications**

Oscillator Specification	Condition	Value			Unit	Note
		Min.	Typ	Max.		
Nominal Frequency			10.000000		MHz	
<b>RF Output</b>						
Output Wave Form		Sine wave				
Level		+7			dBm	
Load			50		Ω	
Harmonic				-30	dBc	
Spurious				-60	dBc	
<b>Power Supply</b>						
Voltage		4.75	5.00	5.25	V	
Current	@ turn on			500	mA	
Steady State	@+25°C			0.8	W	
<b>Frequency Adjustment</b>						
Range	Referenced to frequency at nominal Center Voltage	±5			ppm	
Control		0		+5	V	
Slope			Positive			
Center Voltage			+2.5		V	
Linearity		-10		+10	%	
Input Impedance		50			kΩ	
<b>Frequency Stability</b>						
Initial Accuracy	@ 25±1°C after turn on power 30±5 mins ≤90 days following date code VCO input voltage @ Center Voltage ±0.001V	-1.0		+1.0	ppm	
Ambient	-5°C to +85°C	-0.1		+0.1	ppm	Referenced to +25°C
	-25°C to -5°C	-0.3		+0.3		
	-40°C to -25°C	-1		+1		
Aging	Per day, at time of shipment	-5		+5	ppb	
	Daily After 30 days	-5		+5	ppb	
	Yearly	-0.5		+0.5	ppm	
	10 years	-3.0		+3.0	ppm	
Voltage	±5% change	-30		+30	ppb	
Short Term	Root Allan variance			1	ppb/s	
				1	ppb/10s	
Warm-up	In 5 minutes @+25±1°C	-0.5		+0.5	ppm	Reference to 1 hour
<b>Phase Noise</b>						
Phase noise	10Hz			-100	dBc/Hz	
	100 Hz			-130		
	1 kHz			-140		
	10 kHz			-145		
<b>Environmental Conditions</b>						
<b>Parameter</b>	<b>Reference Std.</b>	<b>Test Condition</b>				
Operating temperature range	-40°C to +85°C					
Storage temperature range	-40°C to +85°C					
Soldering Temperature	Maximum Re-flow Temp <250°C					
Vibration (non-operating)	MIL-STD-202, Method 201	0.06" Total p-p, 10 to 55Hz				
Shock (non-operating)	MIL-STD-202, Method 213, Test Condition J	30g, 11ms, half-sine				
Cleaning		Aqueous cleaning is FORBIDDEN				
Re-flow		Bottom side assembly is FORBIDDEN				