



## Features and Benefits

Frequency range: 15-700MHz  
Output waveform: HCSL  
Supply voltage: 2.5V  
Current: 80mA Max.  
Frequency stability vs. temperature:  $\pm 50$ PPM  
Operating temperature:  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$   
Size: 3.2x2.5x1mm  
Package type: Surface Mount



## Typical Applications

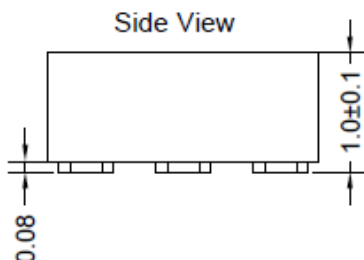
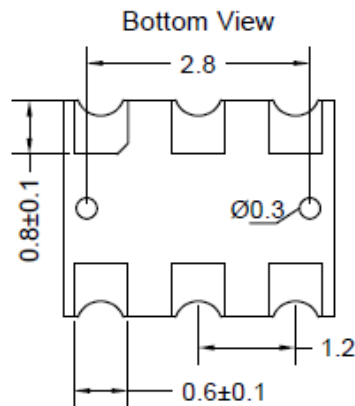
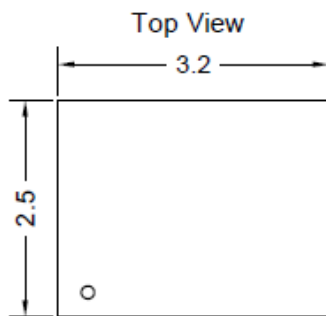
Defense Systems  
Mobile Radar Station  
Gigabit Ethernet, SONET/SDH  
Server & Storage, Data Center  
SD/HD Video, FPGA Clock Generation

## Description

VCXO3225BM-LJ\_HCSL-232 is the high frequency and low jitter differential VCXO. It can be widely used in digital circuits.

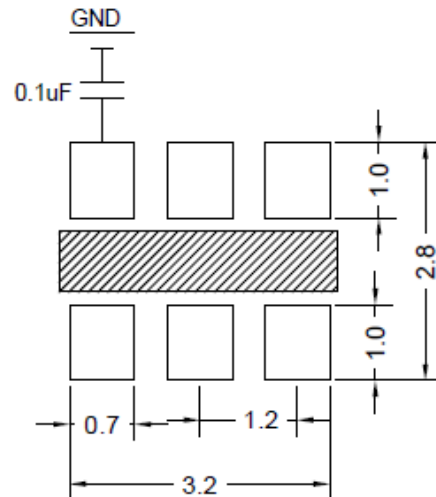
## Mechanical Drawing & Pin Connections

Drawing No: MD240085-1



PIN	Function
#1	Control Voltage
#2	OE
#3	GND
#4	OUTPUT
#5	OUTPUT_N
#6	Supply Voltage

Unit in mm  
1mm = 0.0394 inches



Please keep the middle area blank.  
Do not layout any lines in this space.  
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vcc and GND pads



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f <sub>0</sub>		15		700	MHz	
RF Output							
Output Waveform			HCSL				
Output Level		Output high	0.66		1.15	V	
		Output low	0		0.15	V	
Duty Cycle			45		55	%	
Rise & Fall Time					0.35	ns	
Startup Time					8	ms	
Tri-State (Input to Pin2)		Enable	0.7 V <sub>cc</sub>			V	
		Disable			0.3 V <sub>cc</sub>	V	
Power Supply							
Voltage	V <sub>cc</sub>	±10%		2.5		V	
Supply Current		V <sub>cc</sub> =2.5V			80	mA	
Stand by Current		V <sub>cc</sub> =2.5V			80	mA	
Control Voltage							
Control Voltage		V <sub>cc</sub> =2.5V	0.25	1.25	2.25	V	
Pulling Range			±50		±250	ppm	
Linearity					±10	%	
Modulation Bandwidth			5		20	KHz	
VC Input Impedance			5			Mohm	
Frequency Stability							
Versus Temperature					±50	ppm	
Phase Noise At V <sub>cc</sub> =3.3V, 805.664MHz Frequency		1KHz		-107		dBc/Hz	
		10KHz		-117			
		100KHz		-125			
		1MHz		-135			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
Environmental Conditions							
Operating temperature range		-20°C to +70°C					