



Features and Benefits

Frequency range: 15-2100MHz
 Output waveform: CML
 Supply voltage: 2.5V
 Current: 80mA Max.
 Frequency stability vs. temperature: ± 25 PPM
 Operating temperature: -20°C to $+70^{\circ}\text{C}$
 Size: 3.2x2.5x1mm
 Package type: Surface Mount



Typical Applications

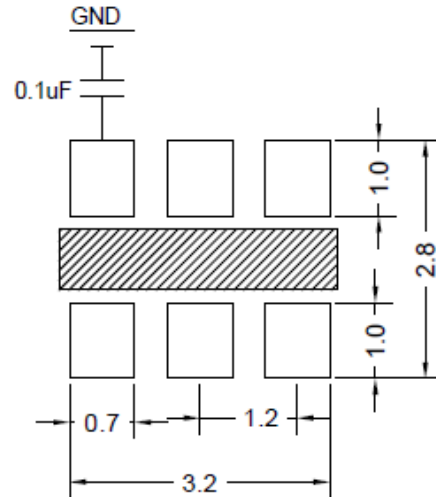
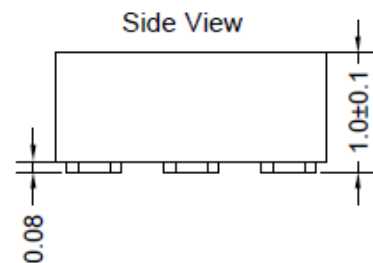
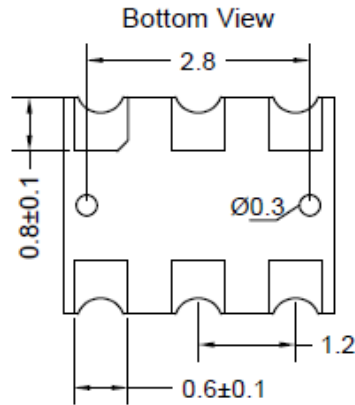
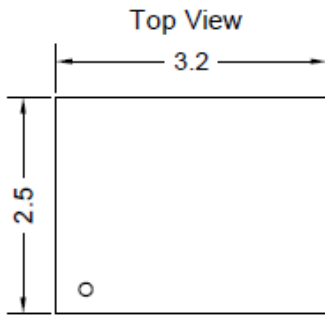
Defense Systems
 Mobile Radar Station
 Gigabit Ethernet, SONET/SDH
 Server & Storage, Data Center
 SD/HD Video, FPGA Clock Generation

Description

VCXO3225BM-LJ_CML-222 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 ₀		15		2100	MHz		
RF Output								
Output Waveform			CML					
Output Level		Output high	V _{cc} -0.085		V _{cc}	V		
		Output low	V _{cc} -0.6		V _{cc} -0.32	V		
Duty Cycle			45		55	%		
Rise & Fall Time					0.35	ns		
Startup Time					8	ms		
Tri-State (Input to Pin2)		Enable	0.7 V _{cc}			V		
		Disable			0.3 V _{cc}	V		
Power Supply								
Voltage	V _{cc}	±10%		2.5		V		
Supply Current		V _{cc} =2.5V			80	mA		
Stand by Current		V _{cc} =2.5V			80	mA		
Control Voltage								
Control Voltage		V _{cc} =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					±25	ppm		
Phase Noise At V _{cc} =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					