



Dynamic Engineers Inc.

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VCXO2520BM-LJ_LVPECL-121

2.5x2.0mm LVPECL VCXO_Voltage Controlled
Crystal Oscillator

Features and Benefits

Frequency range: 15-2100MHz
Output: LVPECL
Supply voltage: 2.5V
Current: 95mA Max.
Frequency stability vs. temperature: ± 25 PPM
Operating temperature: -10°C to $+60^{\circ}\text{C}$
Size: 2.5x2.0mm
Package type: SMD

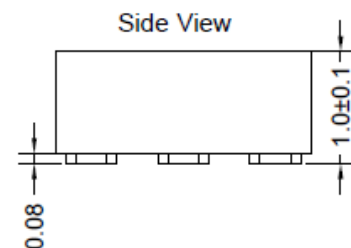
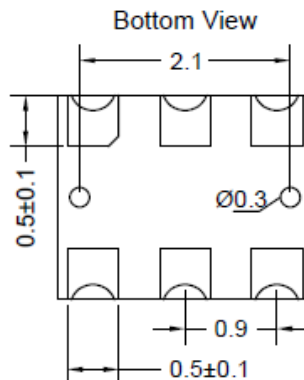
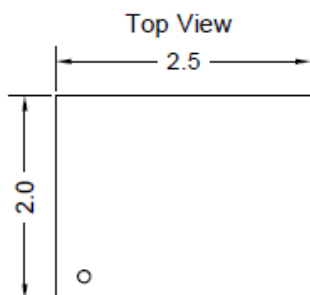


Typical Applications

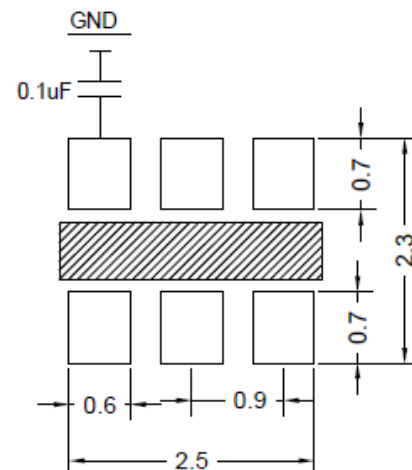
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

Mechanical Drawing & Pin Connections

Drawing No: MD240070-1



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



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

Unit in mm
1mm = 0.0394 inches

**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f_0		15		2100	MHz	
RF Output							
Output Waveform			LVPECL				
Output Level		Output high	$V_{CC}-1.165$		$V_{CC}-0.8$	V	
		Output low	$V_{CC}-2.0$		$V_{CC}-1.55$	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}	$\pm 10\%$		2.5		V	
Supply Current		$V_{CC}=2.5V$			95	mA	
Stand by Current		$V_{CC}=2.5V$			95	mA	
Control Voltage							
Control Voltage	V_C	$V_{CC}=2.5V$	0.25	1.25	2.25	V	
Pulling Range			± 50		± 250	ppm	
Linearity					± 10	%	
Modulation Bandwidth			5		20	KHz	
V_C Input Impedance			5			Mohm	
Frequency Stability							
Versus Temperature					± 25	ppm	
Phase Noise At $V_{CC}=3.3V$, 873.515MHz Frequency		1KHz		-106		dBc/Hz	
		10KHz		-115			
		100KHz		-123			
		1MHz		-133			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
Environmental Conditions							
Operating temperature range		$-10^{\circ}C$ to $+60^{\circ}C$					