

# Dynamic Engineers Inc.

Website: <a href="www.DynamicEngineers.com">www.DynamicEngineers.com</a> Email: <a href="mailto:Inquiry@DynamicEngineers.com">Inquiry@DynamicEngineers.com</a>

#### VCXO2520BM-LJ\_CML-142

Low Jitter VCXO\_Voltage Controlled Crystal Oscillator

#### **Features and Benefits**

Frequency range: 15-2100MHz

Output: CML

Supply voltage: 3.3V Current: 90mA Max.

Frequency stability vs. temperature: ±100PPM Operating temperature: -10°C to +60°C

Size: 2.5x2x1mm Package type: SMD



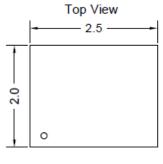
## **Typical Applications**

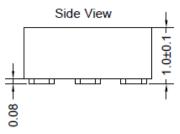
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

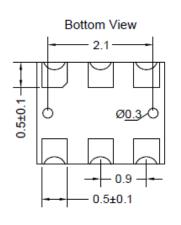
### **Mechanical Drawing & Pin Connections**

**Drawing No:** 

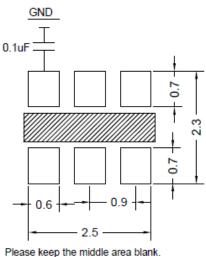
MD240070-1







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



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



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## **Specifications**

Oscillator	0	O and the same	Value			Unit	Note
Specification	Sym	Condition	Min.	Тур.	Max.		
Operational Frequency	f <sub>0</sub>		15		2100	MHz	
RF Output							
Output Waveform				CML			
		Output high	Vcc-0.085		Vcc	V	
Output Level		Output low	Vcc-0.6		Vcc-0.32	V	
Duty Cycle			45		55	%	
Rise & Fall Time					0.35	ns	
Startup Time					8	ms	
Tri-State		Enable	0.7 V <sub>cc</sub>			V	
(Input to Pin2)		Disable			0.3 V <sub>cc</sub>	V	
Power Supply							
Voltage	Vcc	±10%		3.3		V	
Supply Current		V <sub>cc</sub> =3.3V			90	mA	
Stand by Current		V <sub>cc</sub> =3.3V			90	mA	
Control Voltage							
Control Voltage	Vc	V <sub>cc</sub> =3.3V	0.3	1.65	3	V	
Pulling Range			±50		±250	ppm	
Linearity					±10	%	
Modulation Bandwidth			5		20	KHz	
Vc Input Impedance			5			Mohm	
Frequency Stability							
Versus Temperature					±100	ppm	
Dhara Naisa		1KHz		-107			
Phase Noise		10KHz		-117		1 4Da/U-	
At V <sub>cc</sub> =3.3V,		100KHz		-125		dBc/Hz	
805.664MHz Frequency		1MHz		-135			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
<b>Environmental Conditio</b>	ns						
Operating temperature ra	nge	-10°C to +60°C					