

## 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\_LVDS-141

2.5x2.0mm LVDS VCXO\_Voltage Controlled Crystal Oscillator

### **Features and Benefits**

Frequency range: 15-2100MHz

Output: LVDS Supply voltage: 2.5V Current: 80mA Max.

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

Size: 2.5x2x1mm Package type: SMD



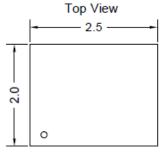
### **Typical Applications**

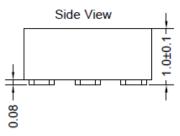
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

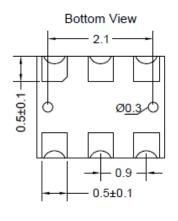
### **Mechanical Drawing & Pin Connections**

**Drawing No:** 

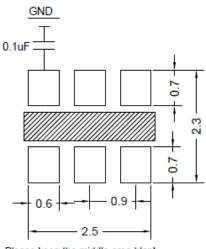
MD240070-1







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



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### **Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational	f <sub>0</sub>		15		2100	MHz	
Frequency	10		10		2100	IVII IZ	
RF Output							
Output Waveform				LVDS			
Output Level		Output high			1.6	V	
		Output low	0.9			V	
Duty Cycle			45		55	%	
Rise & Fall Time					0.35	ns	
Startup Time					8	ms	
Tri-State		Enable	$0.7~V_{cc}$			V	
(Input to Pin2)		Disable			0.3 V <sub>cc</sub>	V	
Power Supply							
Voltage	$V_{cc}$	±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	Vc	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					±100	ppm	
Phase Noise		1KHz		-106			
At V <sub>cc</sub> =3.3V,		10KHz		-115		-ID - /LI-	
873.515MHz		100KHz		-123		dBc/Hz	
Frequency		1MHz		-133			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
<b>Environmental Condit</b>	ions						
Operating temperature	range	-10°C to +60°C					