

# Dynamic Engineers Inc.

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

#### VCXO2520BM-LJ\_HCSL-223

Low Jitter VCXO\_Voltage Controlled Crystal Oscillator

#### **Features and Benefits**

Frequency range: 15-700MHz

Output: HCSL Supply voltage: 1.8V Current: 70mA Max.

Frequency stability vs. temperature: ±25PPM Operating temperature: -20°C to +70°C

Size: 2.5x2x1mm Package type: SMD



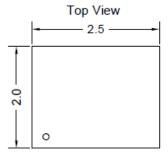
#### **Typical Applications**

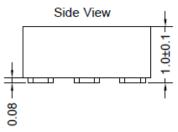
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

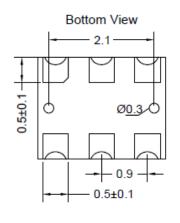
### **Mechanical Drawing & Pin Connections**

**Drawing No:** 

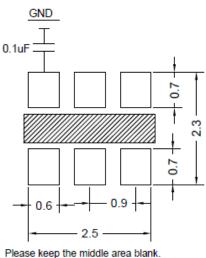
MD240070-1







PIN	Function				
#1	Control Voltage				
#2	OE				
#3	GND				
#4	OUTPUT				
#5	OUTPUT_N	١,			
#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 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		Enable	0.7 V <sub>cc</sub>			V	
(Input to Pin2)		Disable			0.3 V <sub>cc</sub>	V	
Power Supply							
Voltage	Vcc	±10%		1.8		V	
Supply Current		V <sub>cc</sub> =1.8V			70	mA	
Stand by Current		V <sub>cc</sub> =1.8V			70	mA	
Control Voltage							
Control Voltage	Vc	V <sub>cc</sub> =1.8V	0.18	0.9	1.62	V	
Pulling Range			±50		±250	ppm	
Linearity					±10	%	
Modulation Bandwidth			5		20	KHz	
Vc Input Impedance			5			Mohm	
Frequency Stability							
Versus Temperature					±25	ppm	
Dhara Naisa		1KHz		-107			
Phase Noise		10KHz		-117		-ID - /I I	
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	-20°C to +70°C					