

# Dynamic Engineers Inc.

Website: www.DynamicEngineers.com Email: Inquiry@DynamicEngineers.com

### **Features and Benefits**

Frequency range: 15-2100MHz Output: LVDS 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



MD240070-1

#### **Typical Applications**

2.0

0.08

0

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

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

Top View

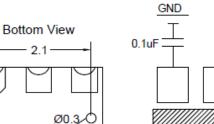
- 2.5 -

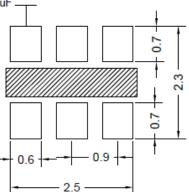
Side View

пп

0.5±0.1 -

1.0±0.1-





**Drawing No:** 

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

OUTPUT\_N OUTPUT\_N Supply Voltage Unit in mm 1mm = 0.0394 inches

0.9

0.5±0.1

Function

Control Voltage

OE

GND

PIN

#1

#2

#3

#4

#5

#6

Oscillator

VCXO2520BM-LJ\_LVDS-142 Low Jitter VCXO\_Voltage Controlled Crystal

1

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# **Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Тур.	Max.		
Operational	f <sub>0</sub>		15		2100	MHz	
Frequency	10		15		2100		
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 <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	
Phase Noise		1KHz		-106			
At V <sub>cc</sub> =3.3V,		10KHz		-115		dBc/Hz	
873.515MHz		100KHz		-123			
Frequency		1MHz		-133		1	
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
<b>Environmental Conditi</b>	ions			<u>.</u>		· · · · · · · · · · · · · · · · · · ·	
Operating temperature r		-10°C to +60°C					