Dynamic Engineers Inc.
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VCXO2520BM-LJ_LVDS-343

Low Jitter VCXO_Voltage Controlled Crystal Oscillator

Features and Benefits

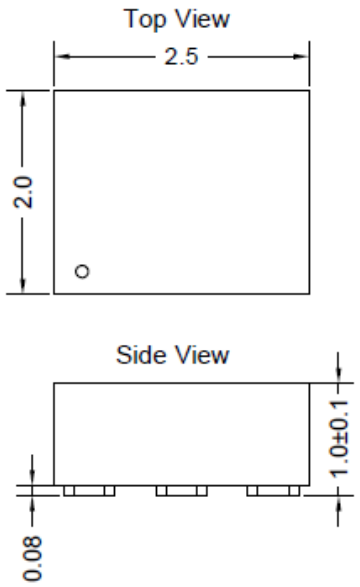
Frequency range: 15-2100MHz
Output: LVDS
Supply voltage: 1.8V
Current: 70mA Max.
Frequency stability vs. temperature: ±100PPM
Operating temperature: -40°C to +85°C
Size: 2.5x2x1mm
Package type: SMD

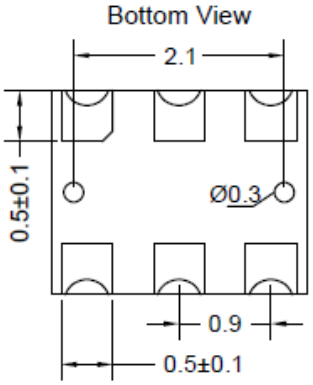
Typical Applications

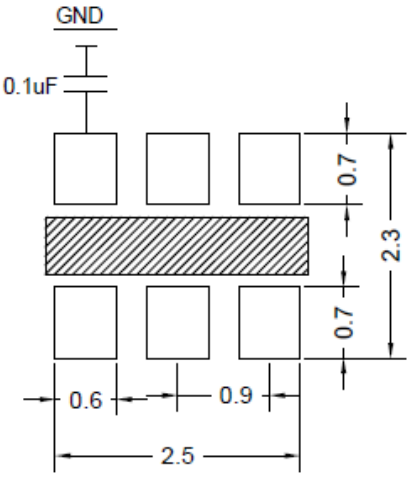
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

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

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 Frequency	f_0		15		2100	MHz	
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 (Input to Pin2)		Enable	0.7 V_{cc}			V	
		Disable			0.3 V_{cc}	V	
Power Supply							
Voltage	V_{cc}	±10%		1.8		V	
Supply Current		V_{cc} =1.8V			70	mA	
Stand by Current		V_{cc} =1.8V			70	mA	
Control Voltage							
Control Voltage	Vc	V_{cc} =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					±100	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		-40°C to +85°C					