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VCXO3225BM-LJ_HCSL-243

Low Jitter VCXO_Voltage Controlled Crystal Oscillator

Features and Benefits

Frequency range: 15-700MHz
Output waveform: HCSL
Supply voltage: 3.3V
Current: 90mA Max.
Frequency stability vs. temperature: ±100PPM
Operating temperature: -20°C to +70°C
Size: 3.2x2.5x1mm
Package type: Surface Mount

Typical Applications

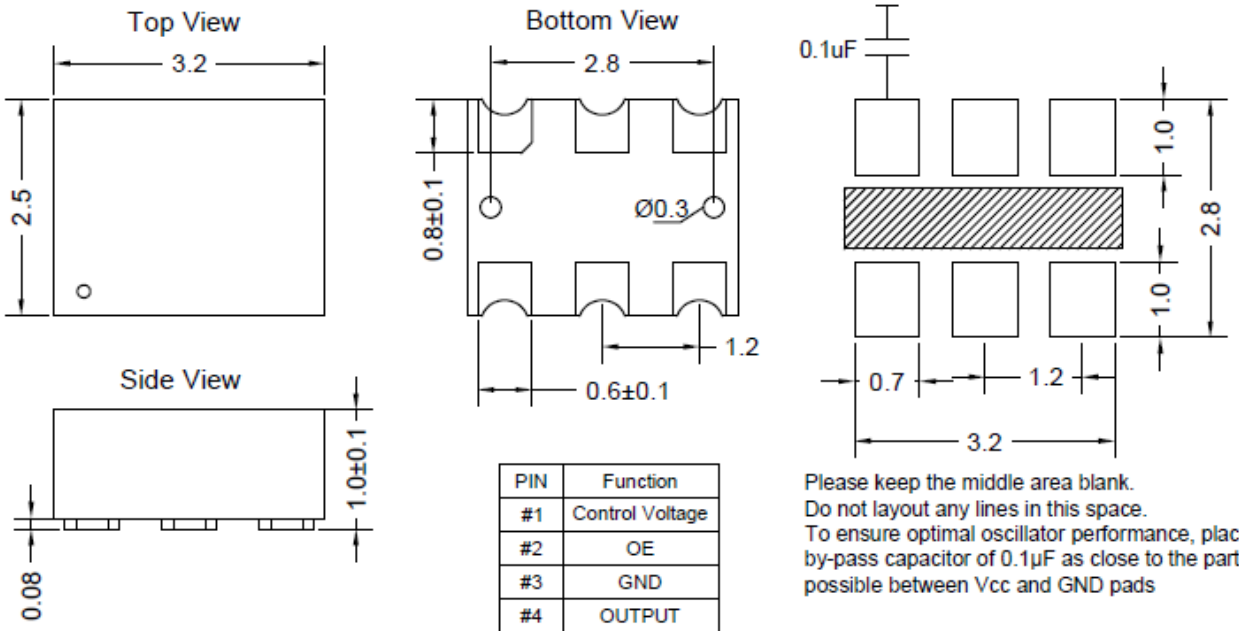
Defense Systems
Mobile Radar Station
Gigabit Ethernet, SONET/SDH
Server & Storage, Data Center
SD/HD Video, FPGA Clock Generation

Description

VCXO3225BM-LJ_HCSL-243 is the high frequency and low jitter differential VCXO.
It can be widely used in digital circuits.

Mechanical Drawing & Pin Connections

Drawing No: MD240085-1



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

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f_0		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 (Input to Pin2)		Enable	0.7 V_{cc}			V	
		Disable			0.3 V_{cc}	V	
Power Supply							
Voltage	V_{cc}	±10%		3.3		V	
Supply Current		V_{cc} =3.3V			90	mA	
Stand by Current		V_{cc} =3.3V			90	mA	
Control Voltage							
Control Voltage		V_{cc} =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 At V_{cc}=3.3V, 805.664MHz Frequency		1KHz		-107		dBc/Hz	
		10KHz		-117			
		100KHz		-125			
		1MHz		-135			
RMS Phase Jitter		Integrated 12KHz-20MHz	150		300	fs	
Period Jitter					50	ps	
Environmental Conditions							
Operating temperature range		-20°C to +70°C					