



Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA
 TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

J7LC) ' \$6 A !%-\$A < n!5 !J
5.0x3.2mm SMD 170 MHz VCXO

Features and Benefits

Typical 5.0 x 3.2 x 1.25 mm 6 pads ceramic SMD package.
 Tight symmetry (45 to 55%) available.
 Output frequency up to 170MHz.
 Tri-state enable/disable

Typical Applications

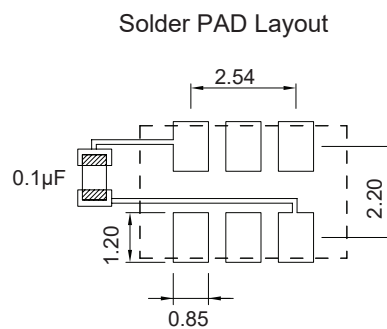
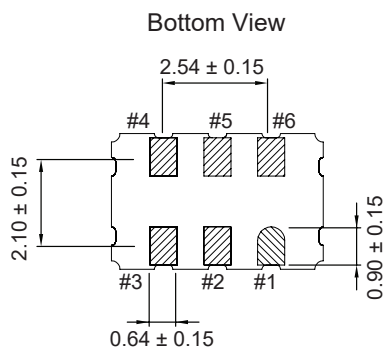
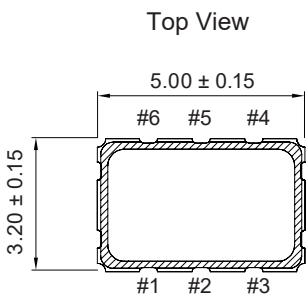
Set-top Box, HDTV
 WiMAX/WLAN
 XDSL/ VoIP
 Cable modem

Description

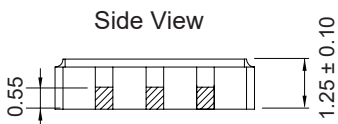
VCXO5300BM-170MHz-A-V offers low phase noise, all in a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: A8% \$\$8) !%



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1μF as close to the part as possible between Vdd and GND pads.



Pin #	Function
1	Vcon
2	Tri-state
3	GND
4	OUTPUT
5	N.C.
6	VDD

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 _{nom}			170		MHz	
RF Output							
Signal Waveform			CMOS				
H-Level Voltage	V _H		2.97			V	
L- Level Voltage	V _L				0.33	V	
Transition time		Rise/Fall time			2	ns	
Power Supply							
Tri-State (Input to Pin 2)		Enable (High voltage or floating)	2.31			V	
		Disable (Low voltage or GND)			0.99	V	
Supply Voltage	V _{dd}	±5%		3.3		V	
Start-up Time					2	ms	
Current Consumption					50	mA	
Input Impedance			1000			koh m	
Frequency Adjustment Range							
Absolute Pulling Range (APR)			±50			ppm	
Control voltage	V _c		0.3		3.0	V	
Linearity			10%				
Frequency Stability							
Frequency stability vs. temperature			-25		+25	ppm	
Aging 1 st Year		at 25°C	-3		+3	ppm	
Period Jitter (Pk-Pk)					150	pS	
RMS Phase Jitter (Integrated 12kHz~20MHz) (At Integer Mode)					1	pS	
Modulation Bandwidth (BW)			10			KHz	
SSB Phase noise		100Hz		-75		dBc	
		1kHz		-105		dBc	
		10kHz		-125		dBc	
Environmental, Mechanical Conditions							
Operating temperature range	-40°C to 85°C						
Storage temperature range	-55°C to +125°C						

Transition times are measured between 10% and 90% of Vdd, with an output load of 15pF