



Features and Benefits

Typical 7.0 x 5.0 x 1.7 mm 6 pads ceramic SMD package
Tight symmetry (40 to 60%) available
Output frequency up to 120MHz
Tri-state enable/disable

Typical Applications

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

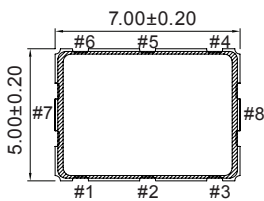
Description

VCXO7501BM-120MHz-A-V offers low phase noise, all in a compact package to suit the different communication needs.

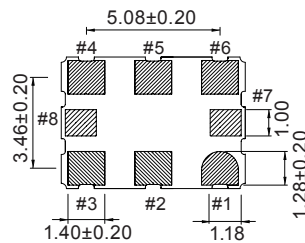
Mechanical Drawing & Pin Connections

Drawing No: MD200030-1

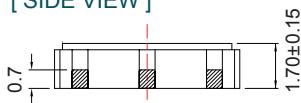
[TOP VIEW]



[BOTTOM VIEW]

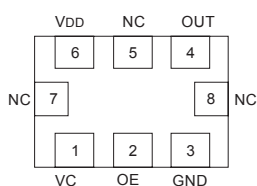


[SIDE VIEW]

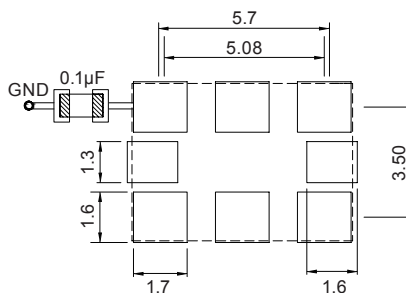


Pin #	Functions
	CMOS
1	Vcon
2	OE
3	GND
4	Output
5	NC
6	VDD
7	NC
8	NC

Solder PAD Layout



Unit in mm
1mm = 0.0394 inches



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.



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note	
			Min.	Typ.	Max.			
Operational Frequency	F_{nom}			120		MHz		
RF Output								
Signal Waveform			CMOS					
H-Level Voltage	V_H		0.9Vdd			V		
L- Level Voltage	V_L				0.1Vdd	V		
Transition time (20%-80%)		Rise/Fall time			1.2	ns		
Duty Cycle			40		60	%		
Load				15		pF		
Power Supply								
Tri-State (Input to Pin 2)		Enable	0.7Vdd			V		
		Disable			0.3Vdd	V		
Supply Voltage	V_{dd}	$\pm 5\%$	2.97	3.3	3.63	V		
Start-up Time					8	ms		
Current Consumption					90	mA		
Standby Current					90	mA		
Input Impedance			5			Mohm		
Frequency Adjustment Range								
Absolute Pulling Range (APR)			± 50			ppm		
Control voltage	V_c		0.3	1.65	3.0	V		
Linearity			10%					
Frequency Stability								
Frequency stability vs. temperature			-30		+30	ppm		
Period Jitter					100	pS		
Modulation Bandwidth (BW)			5		20	KHz		
SSB Phase noise		1kHz		-120		dBc		
Environmental, Mechanical Conditions								
Operating temperature range			-40°C to 85°C					