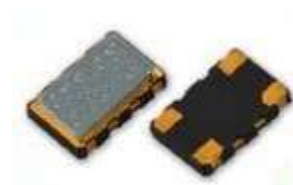


# VC5 Series

## 5.0\*3.2mm SMD VCTCXO

### FEATURE

- Typical 5.0 x 3.2 x 1.15 mm ceramic SMD package
- For automatic assembly
- Compactness and light weight
- Low power consumption
- CMOS and Clipped Sine Wave (Without DC-CUT capacitor) output optional.

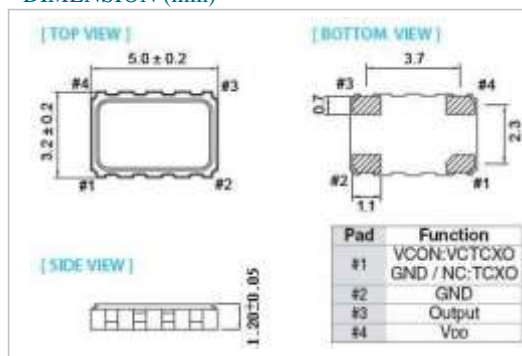


### TYPICAL APPLICATION

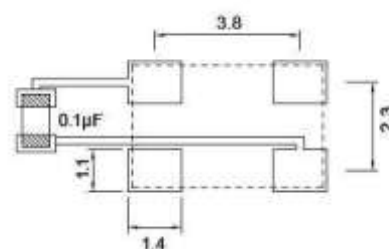
- WLAN / WiMAX
- Telecommunication
- Mobile Phone

**RoHS Compliant Standard**

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	5.0V		3.3V		Unit	
	Min.	Max.	Min.	Max.		
Supply Voltage Variation (VDD) 5%	4.75	5.25	2.97	3.63	V	
Frequency Range	10	26	10	40	MHz	
Standard Frequency	13.0, 14.4, 16.368, 16.369, 16.8, 19.2, 19.68, 20.0, 24.5535, 26.0					
Frequency Tolerance*	-	±2.0	-	±2.0	ppm	
Frequency Stability						
Vs Supply Voltage (±5%) change (Clipped Sine Wave)	-	±0.2	-	±0.2	ppm	
Vs Supply Voltage (±5%) change (CMOS)	-	-	-	±0.4		
Vs Load (±10%) change	-	±0.2	-	±0.2		
Vs Aging	-	±1.0	-	±1.0		
Supply Current	10 MHz ≤ F0 < 15 MHz (Clipped Sine Wave)	-	1.5	-	1.5	mA
	15 MHz ≤ F0 < 26 MHz (Clipped Sine Wave)	-	2.0	-	2.0	
	26 MHz ≤ F0 ≤ 40 MHz (Clipped Sine Wave)	-	-	-	2.5	
	10 MHz ≤ F0 ≤ 40 MHz (CMOS)	-	-	-	6.0	
Output Level (Clipped Sine Wave)	0.8	-	0.8	-	Vp-p	
Output Level (CMOS)	Output High (Logic "1")	-	-	90% VDD	V	
	Output Low (Logic "0")	-	-	10% VDD		
	Duty	-	45	55	%	
Load (Clipped Sine Wave)	10KΩ/10pF		10KΩ/10pF			
Load (CMOS)	-		15pF			
Control Voltage Range (VCTCXO)	0.5	2.5	0.5	2.5	V	
Pulling Range (VCTCXO)	±5.0	-	±5.0	-	ppm	
Vc Input Impedance (VCTCXO)	100	-	100	-	KΩ	
Phase Noise @ 13.0 MHz						
100 Hz	-	-115	-	-115	dBc/Hz	
1 KHz	-	-135	-	-135		
10 KHz	-	-148	-	-148		
Start Time	-	2	-	2	mSec	
Storage Temp. Range	-55	125	-55	125	°C	

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position

\*Frequency at 25°C, 1 hour after reflow

Packing: Tape & Reel 1000 pcs per Reel

### FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	ppm	
		±0.5	±1.0
0~+55	O"	O	O
-10~+60	O"	O	O
-20~+70	O"	O	O
-30~+85	△"	O	O
-40~+85	X	△	△

\* O: Available △: Conditional X: Not available

" Pulling Range < 10 ppm available