

Series VF2

20.4x12.8 mm Voltage Controlled Temperature Compensated Crystal Oscillator

FEATURE

- Typical 20.4 x 12.8 x 7.8 mm.
- Compatible with 14-pin dual in line.
- Double sealed metal case and high reliability.
- VCTCXO available

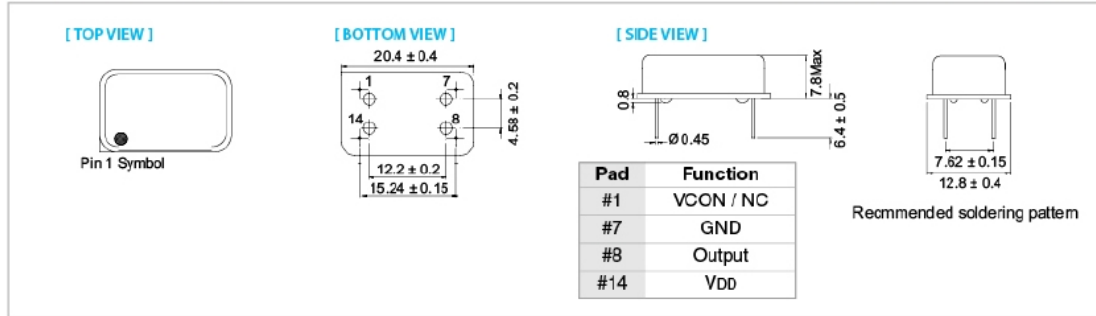
TYPICAL APPLICATION

- Large-Scale equipment
- WLAN / WIMAX
- Mobile Phone

DIMENSION (mm)



RoHS Compliant Standard
SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	Clipped Sine Wave				CMOS				Unit								
	5.0V		2.8V		5.0V		2.8V										
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.									
Supply Voltage Variation (VDD) 5%	4.75	5.25	2.66	2.94	3.13	3.47	2.66	2.94	V								
Frequency Range	10	40	10	40	1.25	40	1.25	40	MHz								
Frequency Tolerance*	-	±2.0	-	±2.0	-	±2.0	-	±2.0	ppm								
Frequency Stability																	
Vs Supply Voltage (±5%) change	-	±2.0	-	±2.0	-	±2.0	-	±2.0	ppm								
Vs Load (±10%) change	-	±2.0	-	±2.0	-	±2.0	-	±2.0	ppm								
Vs Aging (@ 1st year)	-	±1.0	-	±1.0	-	±1.0	-	±1.0	ppm								
Supply Current	Only for clipped sine wave																
10MHz ≤ F0 < 15MHz										-	1.5	-	1.5				
15MHz ≤ F0 < 26MHz										-	2.0	-	2.0				
26MHz ≤ F0 < 40MHz										-	-	-	2.5				
Output Level	0.8	-	0.8	-					Vp-p								
Supply Current	Only for CMOS																
1.25MHz ≤ F0 < 10MHz										-	-	-	-	10	-	7	mA
10MHz ≤ F0 < 15MHz										-	-	-	-	15	-	10	
15MHz ≤ F0 < 26MHz										-	-	-	-	20	-	15	
26MHz ≤ F0 < 40MHz										-	-	-	-	25	-	20	
Output Level					90%VDD or 2.4v	-	90%VDD or 2.4v	-	V								
Output High (Logic "1")					-	10%VDD or 0.4v	-	10%VDD or 0.4v									
Output Low (Logic "0")					-	10%VDD or 0.4v	-	10%VDD or 0.4v									
Duty					40	60	40	60	%								
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 @13.0MHz																	
100 Hz										-115		-115		-115		-115	
1KHz										-135		-135		-135		-135	
10KHz	-148		-148		-148		-148										
Start Time	-	2	-	2	-	2	-	2	mSec								
Storage Temp. Range	-55	125	-55	125	-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: 132pcs/Box

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204x12.8 mm Voltage Controlled Temperature Compensated Crystal Oscillator



FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	Output Logic ppm	Clipped sine wave		CMOS	
		±0.5	±1.0	±0.5	±1.0
0 ~ +55		○*	○	○*	○
-10 ~ +60		○*	○	○*	○
-20 ~ +70		○*	○	○*	○
-40 ~ +85		△*	○	△*	○

* ○: Available △: Conditional X: Not available

* Pulling Range < 10 ppm available

Specifications subject to change without notice.