

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

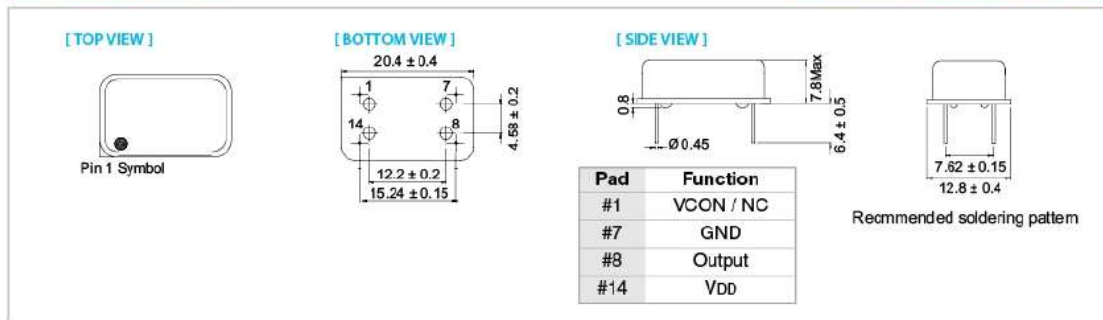
TYPICAL APPLICATION

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



RoHS Compliant Standard
SOLDER PAD LAYOUT (mm)

DIMENSION (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 10MHz ≧ F0 < 15MHz	-	1.5	-	1.5	Only for clipped sine wave				mA
15MHz ≧ F0 < 26MHz	-	2.0	-	2.0					
26MHz ≧ F0 < 40MHz	-	-	-	2.5					
Output Level	0.8	-	0.8	-					Vp-p
Supply Current 1.25MHz ≧ F0 < 10MHz	Only for CMOS				-	10	-	7	mA
10MHz ≧ F0 < 15MHz					-	15	-	10	
15MHz ≧ F0 < 26MHz					-	20	-	15	
26MHz ≧ F0 < 40MHz					-	25	-	20	
Output Level Output High (Logic "1")									90%VDD or 2.4v
Output Low (Logic "0")					-	10%VDD or 0.4v	-	10%VDD or 0.4v	V
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		dBc/Hz
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

Output Logic		Clipped sine wave		CMOS	
Temp. (°C)	ppm	±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.