

## HCMOS, 9X14,J-LEAD, VCXO (SEE PART NUMBERING SYSTEM FOR PART NUMBER)

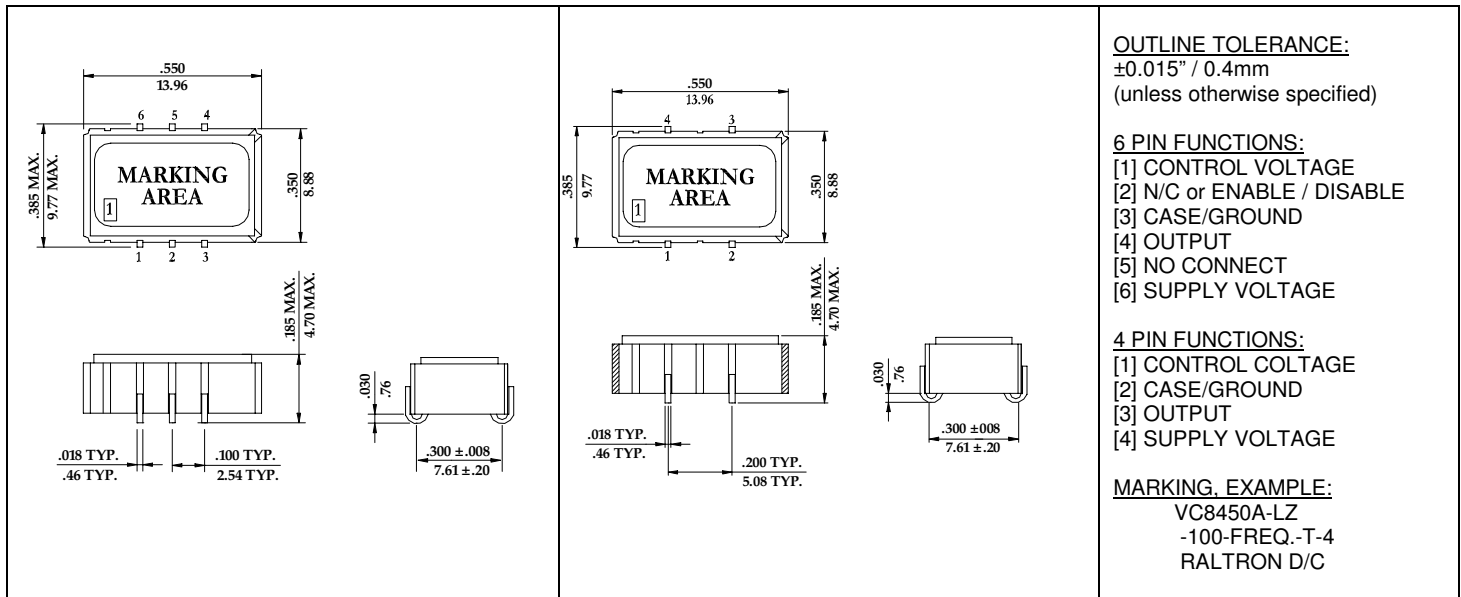
\*\*\*ROHS COMPLIANT\*\*\*

**DESCRIPTION:** A crystal controlled, HCMOS, highly stable oscillator, The output can be Tri-stated to facilitate testing or combined multiple clocks. The device is contained in a sub-miniature, very low profile, leadless ceramic SMD package with 6 or 4 gold J lead contacts. This miniature oscillator is ideal for today's automated assembly environments.

### APPLICATIONS AND FEATURES:

- DSL; Network Processors; Test instruments; Switches; WAN Interfaces
- Common Frequencies: 27 MHz; 35.328 MHz; 19.44 MHz; 77.76MHz; 16.384 MHz;
- +5 VDC or +3.3Vdc HCMOS
- Frequency Range from 1 to 77.760 MHz
- Miniature Ceramic SMD Package Available on Tape and Reel
- Lead Free

### MECHANICAL SPECIFICATION



### ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom	fo	-	1.000-77.760	MHz
Supply voltage, nom.	Vcc	Vcc±5%	+3.3      +5.0	V
Supply current, max.	Is	Vcc=+3.3/+5.0VDC, Ta=+25°C, load=15pF	25.0...35.0	mA
HCMOS/TTL compatible output	VOH / VOL	Vcc=+3.3/+5.0VDC, load=15pF	2.97 / 0.33      4.5 / 0.5	V
Duty cycle	DC	load=15pF / @50%Vcc, Ta=+25°C	40...60 OR 45...55	%
Rise- / fall time, max.	tr / tf	20%~80% Vout, 80%~20% Vout	3.0...10.0	ns
Overall freq. stability, max.	Δf/fc	Including operating temperature, ±5% load & supply variations, 10 year aging, and calibration @+25°C (note 2)	±25.0...±100.0	ppm
Control voltage range	Vc	DC	0...+3.3      +0.5...+4.5	V
Pullability	Δf/fc(vc)	Vcc=+3.3V/Vc=0...3.3 OR +5.0V/Vc=+0.5...4.5V, 15pF load	SEE PART NUMBER GENERATION TABLE	PPM
Linearity, max.	Δf/V	-	10	%
Input impedance, min.	Zin	-	10.0	KΩ
Modulation freq. bandwidth, min.	MBW (-3dB)	Vcc=+3.3V/Vc=+1.65V OR +5.0V/Vc=+2.5V Ta=+25°C, 15pF load	10.0	KHz
Enable option (pin 2)	En	High or open (min.)	+2.4	V
Disable option (pin 2)	Dis	Ground (output pin high impedance) (max.)	+0.4	V
Operating temperature range	Ta	-	0...+70 TO -40...+85	°C
Storage temperature range	T(stg)	-	-55...+125	°C
Absolute voltage range	Vcc(abs)	Non-destructive, DC	-0.5...+7.0	V

**PART NUMBERING SYSTEM:**

SERIES	OVERALL STABILITY	REV	TEMP. RANGE (°C)	PULLABILITY Min (PPM)(Note 3)	FREQUENCY (MHz)	OPTIONS
VC82: 5.0V HCMOS, NO E/D VC84: 3.3V HCMOS, NO E/D VE82: 5.0V HCMOS, E/D VE84: 3.3V HCMOS, E/D	25;±25(note 2) 50: ±50ppm 00: ±100ppm	A	LV: 0...+50 LZ: 0...+70 HZ: -20...+70 D3: -40...+85	50:±50 ppm 80:±80 ppm 100:±100 ppm 150:±150 ppm	1.000...77.76 0	4: 4 PADS VERSION(Note 1) T: 45...55 DUTY CYCLE

**NOTE:**

1. Enable/Disable feature is not available with 4 pads version
2. ±25PPM stability option is available at 0~70 only and aging of 3 years max and max pullability of ±100PPM
3. Max pullability is defined as double the Min defined value (Example; ±100PPM min...±200PPM max)

EX. VC8400A-LZ-100-77.760-T-4

**DEVIATIONS FROM STANDARD ARE AVAILABLE, PLEASE CONSULT FACTORY.**

■ **REFLOW SOLDER**

