



# FULL SIZE VOLTAGE CONTROLLED CRYSTAL OSCILLATORS

## • VC-61&63 Series



The VC-61 & VC-63 series is full size voltage controlled crystal oscillator designed primarily for use in phase locked loops, phase shift keying and other telecommunication applications such as ADSL, Cable modem etc. VC-61 is 5V power supply and VC-63 is 3.3V power supply.

### FEATURES

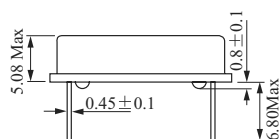
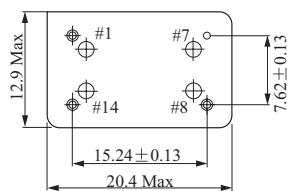
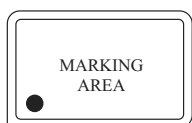
- 14 Pin Full Size
- Industry Standard
- Wide Frequency Range
- Low Cost
- Resistance Weld Package
- 3.3V available

## Electrical Specifications

Parameter	Condition	VC-61	VC-63
Frequency Range*	F <sub>0</sub>	1MHz~40.00MHz	1MHz~40.00MHz
Frequency Calibration	At 25 °C	± 15ppm	
Temperature Stability	Over T <sub>OPR</sub>	± 15ppm, ± 25ppm, ± 50ppm	
Stability vs.power change	V <sub>DD</sub> +/-5%	± 5ppm	
Stability vs.load change	15pF+/-10%	± 3ppm	
Pullability	Over Control Voltage Range	± 50ppm, ± 100ppm, ± 200ppm	± 50ppm, ± 100ppm, ± 150ppm
Control Voltage Range		0.5~4.5V	0~3.3V
Operating Temperature Range	T <sub>OPR</sub>	0 °C~70 °C(-40 °C~+85 °C option)	
Storage Temperature Range	T <sub>STG</sub>	-55 °C~+125 °C	
Power supply Voltage	V <sub>DD</sub>	5.0V+/-5%	3.3V+/-5%
Aging(First Year)	25 °C ± 3 °C	± 5ppm	
Supply Current	I <sub>DD</sub>	1.000MHz to 23.999MHz 24.000MHz to 40.000MHz	15mA Max 25mA Max
Output Symmetry	Sym	At 1/2V <sub>DD</sub> 40/60%(45/55% Option)	
Rise time	T <sub>r</sub>	20%V <sub>DD</sub> ~80%V <sub>DD</sub>	10 nS Max
Fall Time	T <sub>f</sub>	80%V <sub>DD</sub> ~20%V <sub>DD</sub>	8 nS Max
Output Voltage	V <sub>OH</sub>	90% V <sub>DD</sub> min	
	V <sub>OL</sub>	10% V <sub>DD</sub> max	
Output load		15pF max	
Start-up Time	T <sub>s</sub>	10mS Max	

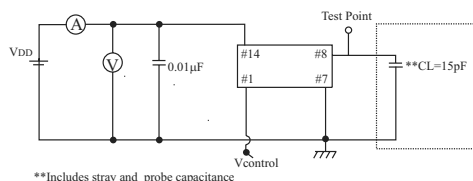
\* Frequency over 40.000Mhz, please consult factory.

## Mechanical Dimensions(mm)



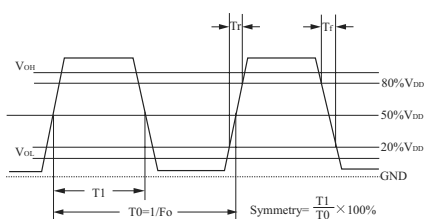
Pin	Connection
#1	V <sub>control</sub>
#7	GND
#8	Output
#14	V <sub>DD</sub>

## Test Circuit



\*\*Includes stray and probe capacitance

## Output Waveform



VCXO

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Specifications are subject to change without notice