

HALF SIZE VOLTAGE CONTROLLED CRYSTAL OSCILLATORS



• VC-81&83 Series



The VC-81 & VC-83 series is half 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-81 is 5V power supply and VC-83 is 3.3V power supply.

FEATURES

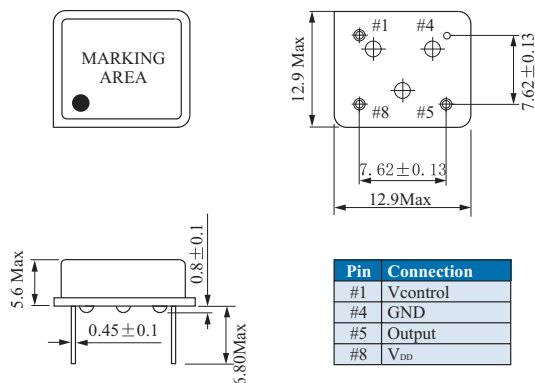
- 8 Pin Half Size
- Industry Standard
- Wide Frequency Range
- Low Cost
- Resistance Weld Package
- 3.3V available

Electrical Specifications

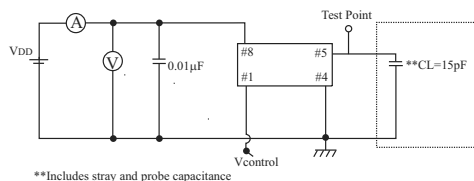
Parameter	Condition	VC-81	VC-83
Frequency Range*	F ₀	1MHz~40.00MHz	1MHz~40.00MHz
Frequency Calibration	At 25°C	± 15ppm	
Temperature Stability	Over T _{OPR}	± 15ppm, ± 25ppm, ± 50ppm	
Stability vs.power change	V _{DD} +/-5%	± 5ppm	
Stability vs.load change	15pF+/-10%	± 3ppm	
Pullability	Over Control Voltage Range	± 50ppm, ± 100ppm, ± 200ppm	± 50ppm, ± 100ppm, ± 150ppm
Control Voltage Range		0.5~4.5V	0~3.3V
Operating Temperature Range	T _{OPR}	0°C~70°C(-40°C~+85°C option)	
Storage Temperature Range	T _{STG}	-55°C~+125°C	
Power supply Voltage	V _{DD}	5.0V+/-5%	3.3V+/-5%
Aging(First Year)	25°C ± 3°C	± 5ppm	
Supply Current	I _{DD}	1.000MHz to 23.999MHz 24.000MHz to 40.000MHz	15mA Max 25mA Max
Output Symmetry	Sym	At 1/2V _{DD} 40/60%(45/55% Option)	
Rise time	T _r	20%V _{DD} ~80%V _{DD}	10 nS Max
Fall Time	T _f	80%V _{DD} ~20%V _{DD}	10 nS Max
Output Voltage	V _{OH} V _{OL}	90% V _{DD} min 10% V _{DD} max	
Output load		15pF max	
Start-up Time	T _s	10mS Max	

* Frequency over 40.000Mhz, please consult factory.

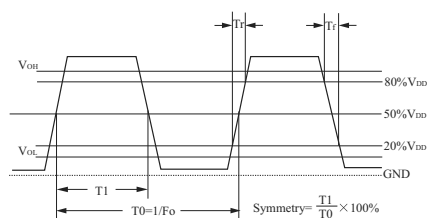
Mechanical Dimensions(mm)



Test Circuit



Output Waveform



VCXO