

VC-81/83 Series

1.0 to 150MHz



VCXO is a Voltage Controlled Crystal Oscillator.

This type of oscillator is a full size tri-state Enable/Disable control. The metal package with pin #4 case ground acts as shielding to minimize EMI radiation.

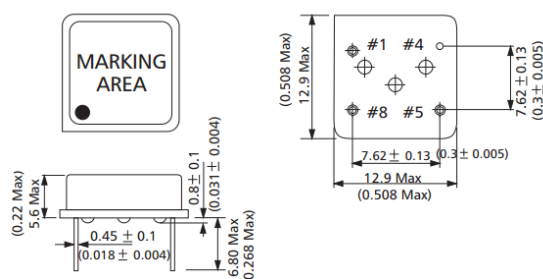
FEATURES

- Miniature Package
- Industry Standard
- Tape and Reel
- RoHS meet

Electrical Specifications

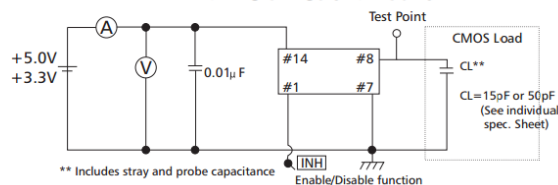
Parameter	Symbol	Condition	VC-81	VC-83
Frequency Range	F ₀		1.0 to 150.0MHz	
Frequency Calibration		At 25°C	±15PPM	
Frequency Stability *		All Condition *	±15PPM, ±25PPM, ±50PPM	
Stability vs. Power Change		V _{DD} ±5%	±5PPM	
Stability vs. Load Change		15pF±10%	±3PPM	
Pullability Over Control Voltage Range			±50PPM, ±100PPM, ±200PM	
Power Supply Voltage	V _{DD}		5.0V±10%	3.3V±10%
Control Voltage Range			0.5 ~ 4.5V	0 ~ 3.3V
Operating Temperature Range	T _{OPR}		0°C to 70°C (-40°C to 85°C option)	
Storage Temperature Range	T _{STG}		-55°C to 125°C	
Aging (first year)		25°C ± 3°C	± 5PPM	
Supply Current	I _{DD}	1.0 to 19.999MHz	20mA Max	10mA Max
		20.0 to 44.999MHz	30mA Max	18mA Max
		45.0 to 124.999MHz	40mA Max	20mA Max
		125.0 to 150.0MHz	50mA Max	25mA Max
Output Symmetry	Sym	½ V _{DD}	40/60% (45/55% option)	
Rise Time	T _r	10%V _{DD} to 90%V _{DD}	10ns Max	8ns Max
Fall Time	T _f	90%V _{DD} to 10%V _{DD}	10ns Max	8ns Max
Output Voltage	V _{OH}		90% V _{DD} Min	
	V _{OL}		10% V _{DD} Max	
Output Load			15pF Max	
Startup Time	T _S		10ms Max	
* Include 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration				

Mechanical Dimensions – mm (inch)



Pin	Connection
1	Vcontrol
4	GND
5	Output
8	V _{DD}

HCMOS Test Circuit



HCMOS Output Waveform

