CRYSTEK CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

Clock Oscillator

C33xx Model
5×7 mm SMD, 3.3V, HCMOS

RoHS Compliant

Frequency Range:	1.544 to 156.250 MHz
Frequency Stability Options(ppm):	±20, ±25, ±50, ±100
Temperature Range: (standard)	0℃ to +70℃
(Option "M")	-20℃ to +70℃
(Option "E"*)	-40℃ to +85℃
Storage:	-45℃ to 90℃
Input Voltage:	3.3V ±0.3V
Input Current:	
(1.544~34.00MHz)	18mA Max
(35.00~50.00MHz)	25mA Max
(51.00~69.00MHz)	30mA Max
(70.00~156.25MHz)	45mA Max
Standby Current:	3uA Typ., 10uA Max
Output:	HCMOS
Symmetry:	45/55% Max @ 50%Vdd
Rise/Fall Time:	
(1.54~10.00MHz)	5nsec Max @ 20% to 80% Vdd
(10.10~30.00MHz)	4nsec Max @ 20% to 80% Vdd
(30.10~50.00MHz)	3nsec Max @ 20% to 80% Vdd
(50.10~80.00MHz)	2.5nsec Max @ 20% to 80% Vdd
(80.10~156.25MHz)	2nsec Max @ 20% to 80% Vdd
Logic:	"0"= 10% Vdd Max "1"= 90% Vdd Min.
Disable Time:	200nSec Max
Start-up Time:	1mSec Typ., 2mSec Max
Load:	30pF Max, >125MHz 15pF Max
Jitter RMS: 12kHz~80MHz	0.5psec Typ., 1psec Max
Sub-harmonics:	None
Aging:	<3ppm 1st/yr, <1ppm every year thereafter

*available in select frequencies -40/85

Model C33xx is a 1.544 MHz to 156.250 MHz HCMOS Clock Oscillator operating at 3.3Volts. The oscillator utilizes Fundamental or High Q Third Overtone crystal design providing very low Jitter and Phase Noise. No Sub-Harmonics are present in the Output Signal.

Applications:
Digital Video
SONET/SDH/DWDM
Storage Area Networks
Broadband Access
Ethernet, Gigabit Ethernet

Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Vibration:	MIL-STD-883, Method 2007, Condition A
Solderability:	MIL-STD-883, Method 2003
Solvent Resistance:	MIL-STD-202, Method 215
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:	MIL-STD-883, Method 1011, Condition A
Moisture Resistance:	MIL-STD-883, Method 1004

Specifications subject to change without notice.

Rev: K
Date: 10-Jan-12

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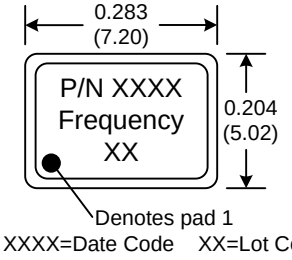
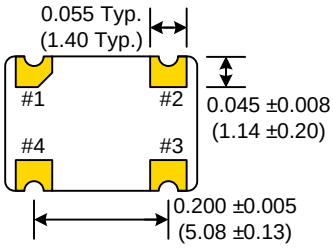
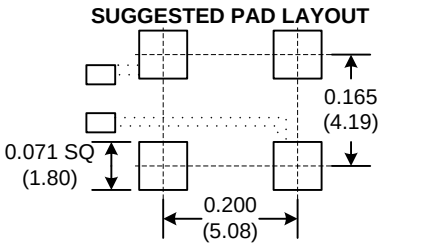






Dimensions inches (mm)
All dimensions are Max unless otherwise specified.

Tri-State Function	
Function pin 1	Output pin
Open "1" level 0.7×Vcc Min "0" level 0.3×Vcc Max	Active Active High Z

PIN	Function
1	E/D
2	GND
3	OUT
4	Vcc

Crystek Part Number Guide

C X 3 3 9 X - 44.736
#1 #2 #3

#1 Temp. Range: Blank = 0/70℃, M= -20/70℃, E= -40/85℃
#2 Stability: (see Table 1)
#3 Frequency in MHz: 3 or 6 decimal places

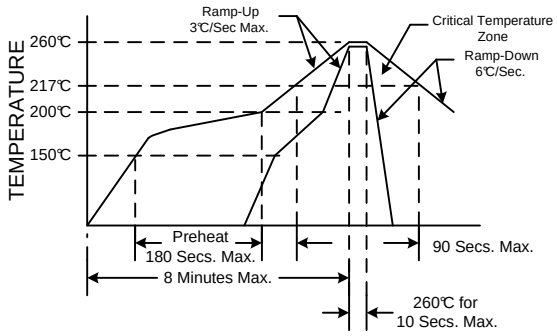
Example:
C3392-44.736MHz = 3.3V, 0/70℃, ±50ppm, 44.736MHz
CM3391-44.736MHz = 3.3V, -20/70℃, ±25ppm, 44.736MHz
CE3390-44.736MHz = 3.3V, -40/85℃, ±100ppm, 44.736MHz

Stability Indicator	
0	± 100ppm
2	± 50ppm
1	± 25ppm
8*	± 20ppm

*available in select frequencies -40/85

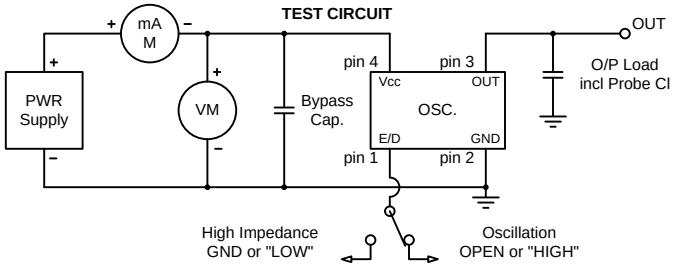
Table 1

RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240℃ peak also acceptable.

TEST CIRCUIT



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