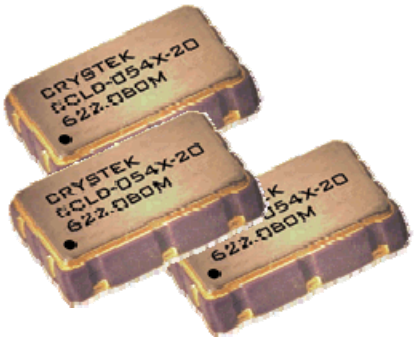
CRYSTEK CRYSTALS
A Division of Crystek Corporation

CCLD-054X-20-622.080
LVDS Clock Oscillator
5×7mm SMD, 3.3V

Model CCLD-054X is a 622.080 MHz LVDS Clock Oscillator operating at 3.3Volts. Enable/Disable function used for system testing is offered as a standard feature. Operating Temperature is from -40°C to +85°C with ±20ppm Frequency Stability.



5×7mm SMD

Applications:

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

Rev: F
Date: 07-May-12
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CRYSTEK CORPORATION
12730 Commonwealth Drive • Fort Myers, Florida 33913
Phone: 239-561-3311 • 800-237-3061
Fax: 239-561-1025 • www.crystek.com

CCLD-054X-20-622.080
LVDS Clock Oscillator
5×7mm SMD, 3.3V

RoHS Compliant

Performance Specification	MIN	TYP	MAX	UNITS
Nominal Frequency:		622.080		MHz
Frequency Stability:	-20		+20	ppm
Output Phase Noise:				
@1kHz Offset		-100		dBc/Hz
@10kHz Offset		-125		dBc/Hz
@100kHz Offset		-138		dBc/Hz
@1MHz Offset		-140		dBc/Hz
@10MHz Offset		-142		dBc/Hz
Jitter: 12kHz-20MHz			2	pS, RMS
Differential Clock Rise Time:	0.2	0.5	0.7	nSec
Differential Clock Fall Time:	0.2	0.5	0.7	nSec
Output High Voltage, V_{OH}:		1.40	1.60	V
Output Low Voltage, V_{OL}:	0.90	1.10		V
Differential Output:	247	330	454	mV_{OD}
Differential Output Error:			50	mV
Differential Output Skew:			200	pSec
Output Leakage Current:	-10		+10	µA
Output Load (differential):		100		Ω
Enable High Voltage, V_{IH}:	0.7×Vcc		Vcc	V
Disable Low Voltage, V_{IL}:	GND		0.3×Vcc	V
Output Enable/Disable Time:			400	nSec
Duty Cycle @ 1.25V(LVDS):	45	50	55	%
Offset Voltage:	1.125	1.2	1.375	V
Offset Error:	0	3	25	V
Supply Voltage:	3.15	3.3	3.45	V
Supply Current, Icc Enabled:			80	mA
Supply Current, Icc Disabled:			10	µA
Operating Temperature:	-40		+85	°C
Storage Temperature:	-45		+90	°C

Parameter	Conditions
Mechanical Shock	MIL-STD-883, Method 2002
Mechanical Vibration	MIL-STD-883, Method 2007
Solderability	MIL-STD-883, Method 2003
Resistance to Solvents	MIL-STD-883, Method 2016

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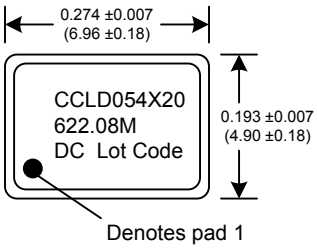
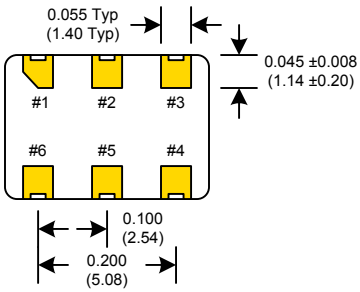
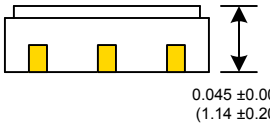
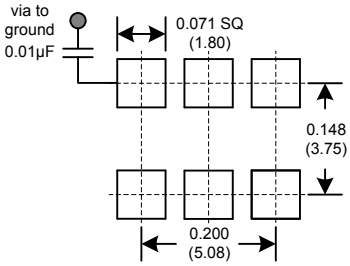




Dimensions inches (mm)
All dimensions are Max unless otherwise specified.



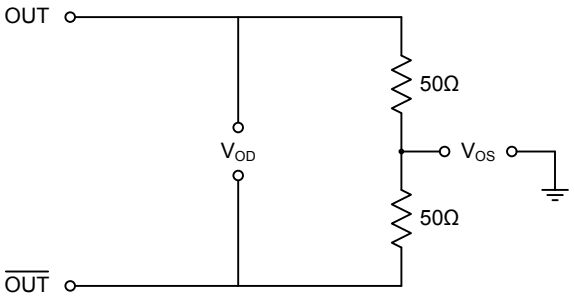
SUGGESTED PAD LAYOUT



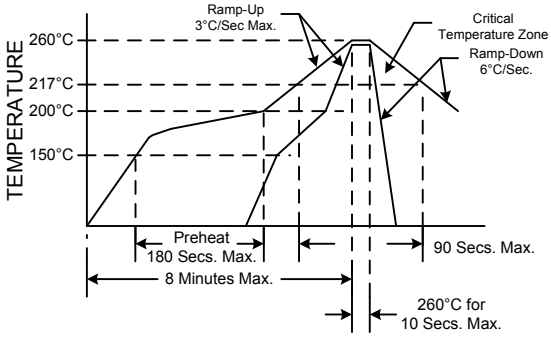
0.01uF Bypass Capacitor Recommended

PIN	Connection
1	Enable/Disable
2	N/C
3	GND
4	Output
5	Comp Output
6	Vcc

LVDS TEST CIRCUIT



RECOMMENDED REFLOW SOLDERING PROFILE



NOTE: Reflow Profile with 240°C peak also acceptable.

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