

CVHD-956 Model

9X14 mm SMD, 3.3V, HCMOS/TTL

HCMOS/TTL VCXO with Enable/Disable

Lead Free
RoHS
Compliant

Frequency Range:	38.88 MHz to 180 MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C -55°C to 105°C
Storage:	
Frequency Stability:	±25ppm, ±50ppm
Input Voltage:	3.3V ± 0.3V
Input Current:	30mA Max
Control Voltage:	1.65V ± 1.65V
Settability At Nominal:	1.65V ± 0.25V
Output:	HCMOS/TTL Compatible
Symmetry:	45/55% Max
Rise/Fall Time:	5ns Max @ 20% to 80% Vcc
Pullability APR:	±50ppm Min.
Linearity:	± 10% Max
Load:	30pF Max
Logic "1" Level:	2.4V Min
Logic "0" Level:	0.4V Max
Current:	I _{OL} = -24mA Max I _{OH} = +24mA Max
Disable Time:	100ns Max
Start-up time:	2ms Typ., 10ms Max
Modulation BW:	10KHz @ -3dB Min.
Period Jitter: (20,000 periods)	3.5ps RMS (1-sigma) Max
Phase Jitter: 12KHz~40MHz	0.5ps RMS (1-sigma) Max
Total Jitter: (100,000 periods)	25ps peak-to-peak Max
Phase Noise:	10Hz -60 dBc/Hz
Typical @ 156.25MHz	100Hz -85 dBc/Hz
	1KHz -115 dBc/Hz
	10KHz -140 dBc/Hz
	100KHz -160 dBc/Hz
Aging:	<5ppm 1st/yr, <2ppm every year thereafter



Applications:

Satellite uplinks/downlinks
High Definition Video Equipment
Switch Applications

Designed using FR5 PCB & HFF crystal technology to provide a Low Noise, Low Jitter Voltage Controlled Crystal Oscillator solution at a competitive price.

Specifications subject to change without notice.

TD-040505 Rev. B

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Crystek Crystals Corporation

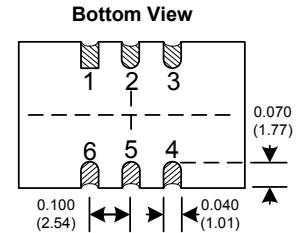
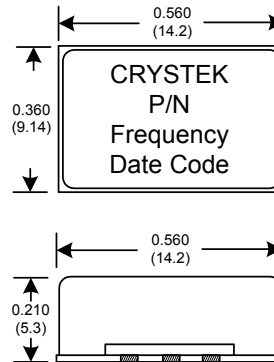
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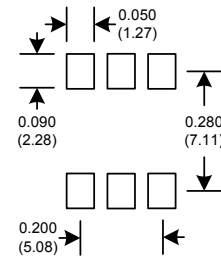
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Pad	Connection
1	Volt Cont.
2	Tri-State
3	GND
4	OUT
5	NC
6	Vdd

Tri-State Function	
Tri-State pin	Output pin
Open	Active
"1" level 2.2V Min	Active
"0" level 0.8V Max	High Z
Internal Pullup Resistance	50K ohms Min

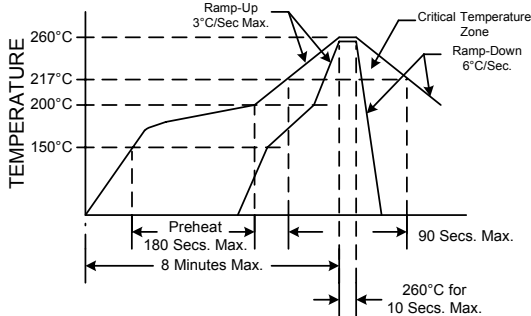


SUGGESTED PAD LAYOUT



Lead Free
RoHS
Compliant

RECOMMENDED REFLOW SOLDERING PROFILE



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

Crystek Part Number Guide

CVHD-956 X - 50 - 74.1758

#1 #2 #3 #4 #5

#1 Crystek SMD HCMOS VCXO
#2 Model 956 = 3.3V 9x14mm HFF VCXO
#3 Temp. Range: Blank = 0/70°C, X= -40/85°C
#4 Stability: (see Table 1)
#5 Frequency in MHz: 3 or 6 decimal places

Stability Indicator:

50 ± 50ppm
25 ± 25ppm

**Note -40/85°C only available in ± 50ppm

Table 1

Example:

CCPD-956X-50-74.250 = 3.3V, 45/55, -40/85°C, 50ppm, 74.250 MHz

Mechanical:

Shock:
Solderability:
Vibration:
Solvent Resistance:
Resistance to Soldering Heat:

MIL-STD-883, Method 2002, Condition A
MIL-STD-883, Method 2003
MIL-STD-883, Method 2007, 10g
MIL-STD-202, Method 215
MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:
Moisture Resistance:

MIL-STD-883, Method 1011, Condition A
MIL-STD-883, Method 1004

Packaging:

Tape/Reel: 100ea, 250ea, 500ea 24mm Tape

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