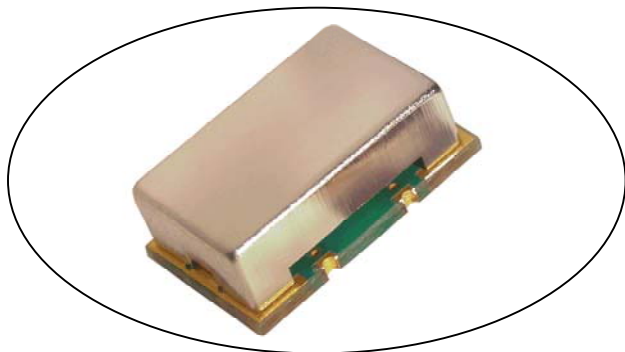


High Performance HCMOS VCXO



CVHD-931 Model
9x14 mm SMD, 3.3V, HCMOS

Frequency Range:	50 MHz to 180 MHz
Temperature Range: (Option X)	0°C to 70°C -40°C to 85°C
Storage:	-45°C to 90°C
Input Voltage:	3.3V ±0.3V
Control Voltage:	1.65V ±1.65V
Settability At Nominal:	1.65V ±0.25V
Input Current:	25mA Max
Output:	HCMOS
Symmetry:	47.5/52.5 Typical, 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:	90% Vdd Max
Logic "0" Level:	10% Vdd Min
Start-up time:	2ms Typical, 5ms Max
Modulation BW:	>10kHz @ -3dB
Sub-harmonics:	none
Period Jitter: (20,000 periods)	<5ps RMS (1-sigma) Max
Phase Jitter: 12kHz~20MHz	<1ps RMS (1-sigma) Max,
50kHz~80MHz	<1ps RMS (1-sigma) Max,
Phase Noise Typical: 100Hz	-80 dBc/Hz
1kHz	-110 dBc/Hz
10kHz	-140 dBc/Hz
100kHz	-150 dBc/Hz
Aging:	<3ppm 1 st year, <2ppm every year thereafter



Applications:

Broadband Networks
SONET/SDH/DWD
ATM
Network/switch
Telecom

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

Rev: K
Date: 16-Jan-2023
Page 1 of 2

High Performance HCMOS VCXO



CVHD-931 Model
9×14 mm SMD, 3.3V, HCMOS

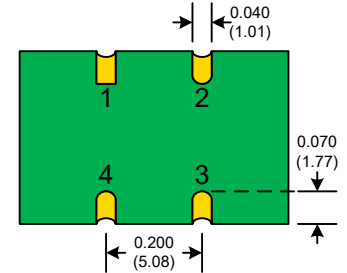
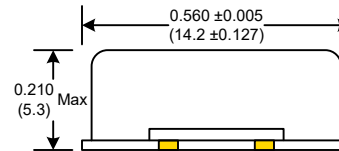
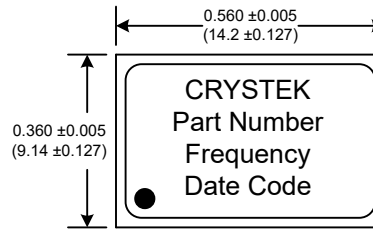
Crystek Part Number Guide

CVHD - 931 X - 80.000

#1 #2 #3 #4

- #1 Crystek 9×14 SMD HCMOS VCXO
- #2 Model 931 = High Performance 3.3V
- #3 Temp. Range: Blank = 0/70°C, X = -40/85°C
- #4 Frequency in MHz: 3 or 6 decimal places

Example:
CVHD-931X-100.000 = 3.3V, -40/85°C, 100 MHz



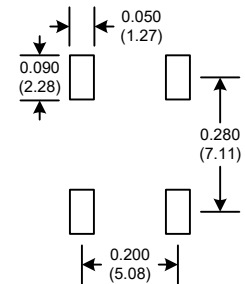
PAD FINISH: Immersion Gold (ENIG); 5 micro inches maximum

RECOMMENDED REFLOW SOLDERING PROFILE 900034 (See App Note listed on website)

<http://www.crystek.com/specification/reflow/900034.pdf>

PIN	Function
1	Vcont
2	GND
3	OUT
4	VDD

SUGGESTED PAD LAYOUT



Mechanical:

Shock:	MIL-STD-883, Method 2002, Condition B
Solderability:	MIL-STD-883, Method 2003
Vibration:	MIL-STD-883, Method 2007, Condition A
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

Packaging:

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

Rev: K
Date: 16-Jan-2023
Page 2 of 2