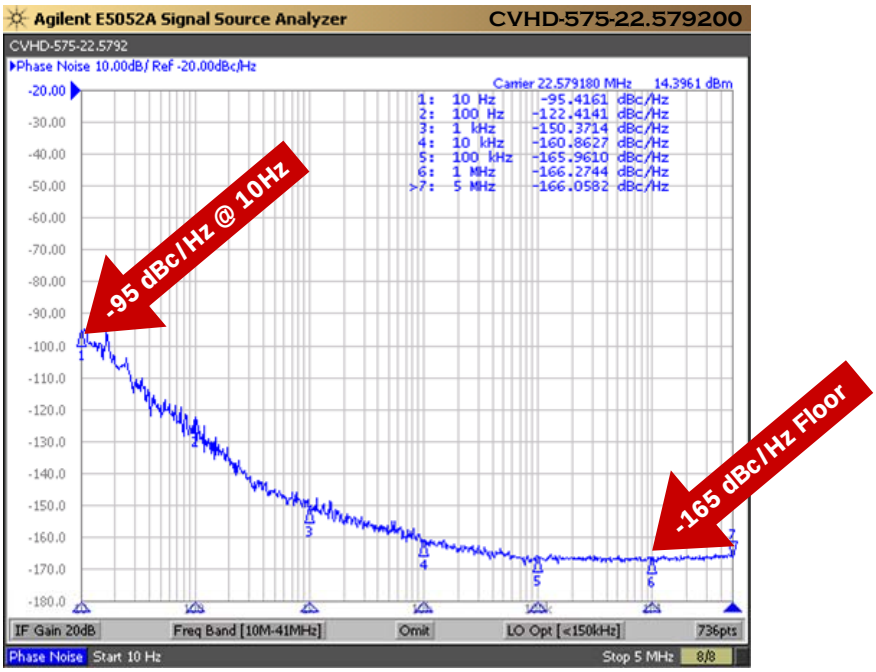
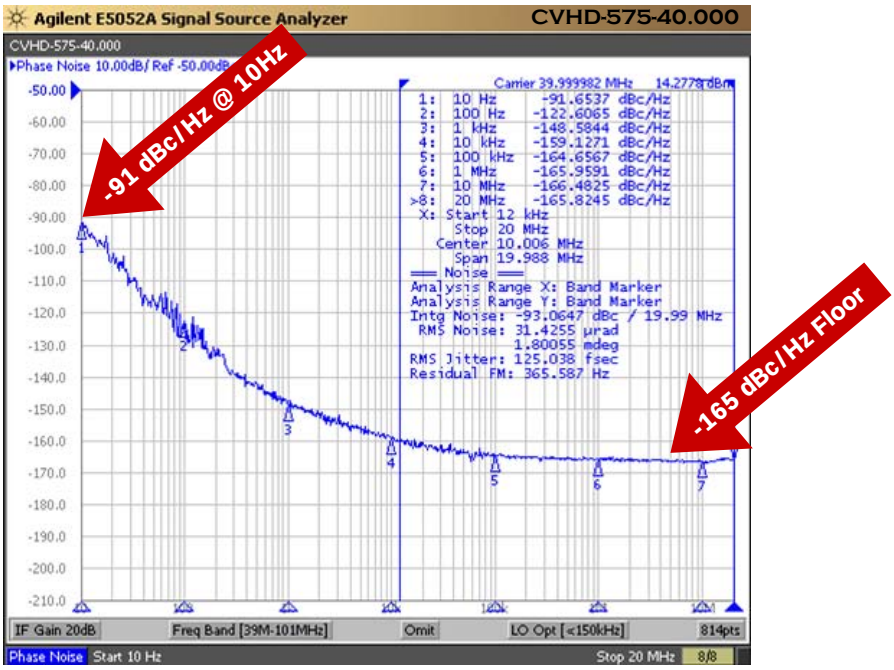
CRYSTEK CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

CVHD-575
Ultra-Low Phase Noise VCXO

CVHD-575 Model
5×7.5 mm SMD, 3.3V, HCMOS

RoHS Compliant





Model CVHD-575 is the industry's lowest phase noise VCXO in a 5×7.5 mm package. Close-in phase noise is -90 dBc/Hz @ 10 Hz while its floor is at -165 dBc/Hz. This oscillator may be small in size but it packs a punch inside. Its output driver is capable of driving ±24mA.

Applications include
Digital Video, DACs, ADCs for HD Audio,
Low Phase Signal Sources, Test and Measurement

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CVHD-575
Ultra-Low Phase Noise VCXO

CVHD-575 Model
5×7.5 mm SMD, 3.3V, HCMOS

Frequency Range:	**20 MHz to 52 MHz***
Temperature Range:	**0°C to +70°C (standard)**
(Option M)	**-20°C to +70°C**
(Option X)	**-40°C to +85°C**
Storage:	**-45°C to 90°C**
Input Voltage:	**3.3V ±0.3V**
Input Current:	**15mA Typical, 25mA Max**
Output:	**HCMOS**
Symmetry:	**45/55% Max @ zero crossing point**
Rise/Fall Time:	**2nsec Max @ 20% to 80% Vdd**
Logic:	**"0" = 10% Vdd Max**
	"1" = 90% Vdd Min
Load:	**15pF**
Output Current:	**±24mA Max**
Input:	
Modulation Bandwidth:	**>10kHz @ -3dB**
Input Impedance:	**51 kΩ**
Control Voltage:	**1.65V ±1.65V**
Tuning Sensitivity:	**+22ppm/V Typical**
Frequency Pulling:	**±20ppm APR Min**
(Inclusive of frequency stability, calibration, and aging.)	
Linearity:	**±10% Max**
Phase Jitter: (12kHz~20MHz)	**125fs Typical @ 40 MHz**
Phase Noise Typical:	**See plot**
Phase Noise Floor:	**-165 dBc/Hz Typical, -162 dBc/Hz Max**
Sub-harmonics:	**None**
Aging:	**<3ppm 1st year, <1ppm thereafter**

Part Number Example:
CVHD-575X-50.000 = 3.3V, 45/55, -40°C to +85°C, 50 MHz

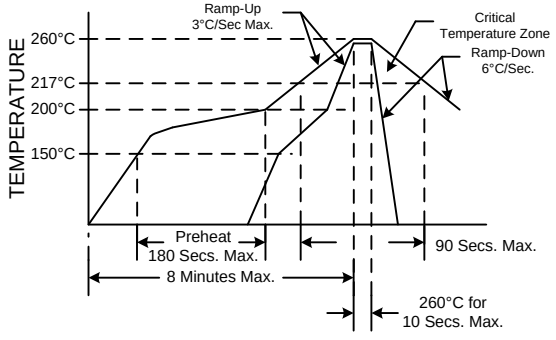
RoHS Compliant



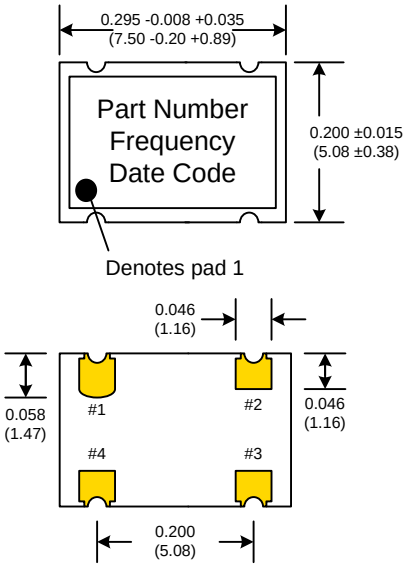
*Standard Frequencies (MHz)	
22.579200	45.158400
24.576	49.152
27.000	50.000
40.000	

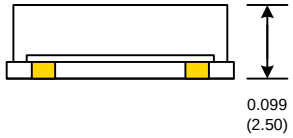
Absolute Maximum Ratings		
Parameter	Rating	Unit
Input Supply Voltage	+6.0	V
Input Control Voltage	+10.0	V

RECOMMENDED REFLOW SOLDERING PROFILE

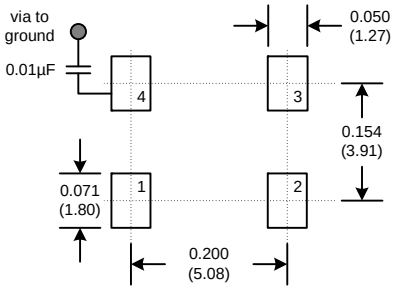


NOTE: Reflow Profile with 240°C peak also acceptable.





SUGGESTED PAD LAYOUT



Pad	Connection
1	Vc
2	GND
3	Output
4	Vdd

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