CVHD-957 Model
9x14 mm SMD, 3.3V, HCMOS

22.579200 MHz HCMOS 3.3V

CVHD-957 Ultra-Low Phase Noise VCXO with Standby Mode

49.152 MHz HCMOS 3.3V

Hear The Difference!!

Crystek’s Model CVHD-957 HCMOS VCXO family has been designed specifically for High Definition Audio (HD Audio). It features a typical low close-in phase noise of -90 dBc/Hz @ 10 Hz offset, and a noise floor of -168 dBc/Hz. With this extreme low phase noise performance, you will “Hear the Difference”. It also features a “Standby Function”, that is, when placed in disable mode, the internal oscillator is completely shut down in addition to its output buffer being placed in Tri-State. This family is housed in a 9x14 mm SMT package and operates with a +3.3V power supply.

Applications include:
- Digital Audio Broadcasting (DAB)
- Professional CD audio equipment
- DACs and ADCs for HD audio

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Rev: L
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CVHD-957
Ultra-Low Phase Noise VCXO
with Standby Mode

Frequency Range: 10 MHz to 50 MHz
Temperature Range: 0°C to +70°C
  (Option M) -20°C to +70°C
  (Option X) -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: 3.3V ±5%
Input Current: 15mA Typical, 25mA Max
Input Current (Disabled Mode): 1.5mA Max
Input: Modulation Bandwidth: >10 kHz @ -3 dB
  Impedance: 50 kOhm
  Control Voltage: 1.65V ±1.65V
  Tuning Sensitivity: +85 ppm/V Typical
  Frequency Pulling: ±100ppm Min, ±75ppm Min for 10 MHz variant
Output: HCMOS
  Symmetry: 40/60% Max @ 50%Vcc
  Rise/Fall Time: 3ns Max @ 20% to 80% Vcc
  Logic: “0” = 10% Vcc Max
  “1” = 90% Vcc Min
  Load: 15pF
  Output Current: ±24mA Max
Disable Time: 200ns Max
Start-up Time: 1ms Typical, 2ms Max
Pin 1 Disable Current: -350µA Max
Phase Noise:
  -90 dBc/Hz at 10 Hz Typical for 22.5792 MHz and 24.576 MHz
  -80 dBc/Hz at 10 Hz Typical for 45.1584 MHz and 49.152 MHz
Phase Noise Floor:
  -168 dBc/Hz Typical, -165 dBc/Hz Max
Sub-harmonics: None
Aging: <3ppm 1st year, <1ppm thereafter

Developed Frequencies

<table>
<thead>
<tr>
<th>Frequency</th>
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<tr>
<td>22.5792 MHz</td>
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PAD FINISH: Immersion Gold (ENIG); 5 micro inches maximum

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