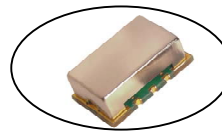


Ultra-Low Phase Noise Voltage Controlled Crystal Oscillator

Part Number CVHD-952 9x14 mm SMD, 3.3V, HCMOS

| | |
|-------------------------------|---|
| Frequency Range: | 131.000 MHz to 200.000 MHz |
| Frequency Pulling: | ±20 ppm APR Min |
| Temperature Range: | 0°C to 70°C (standard) |
| (Option X): | -40°C to 85°C |
| Storage: | -45°C to 90°C |
| Input Voltage: | 3.3 V ±0.3 V |
| Control Voltage: | 1.65 V ±1.65 V |
| Input Current: | 25 mA Typical, 35 mA Max |
| Output: | HCMOS |
| Symmetry: | 45/55% Max @ 50% Vdd |
| Rise/Fall Time: | 2ns Max @ 20% to 80% Vdd |
| Linearity: | ±10% Max |
| Logic: | "0" = 10% Vdd Max "1" = 90% Vdd Min |
| Load: | 15 pF |
| Output current: | ±24 mA Max |
| Disable Time: | 200 ms Max |
| Enable Time: | 200 ms Max |
| Jitter: | 12 kHz to 80 MHz 0.5 psec Typical, 1 psec RMS Max |
| Phase Noise (Typical): | 1 Hz: -40 dBc/Hz 10 Hz: -70 dBc/Hz 100 Hz: -100 dBc/Hz 1 kHz: -130 dBc/Hz 10 kHz: -148 dBc/Hz 100 kHz: -150 dBc/Hz |
| Sub-Harmonic @ Fo/2: | -35 dBc Max |
| Aging: | <3 ppm 1 st year, <1 ppm every year thereafter |



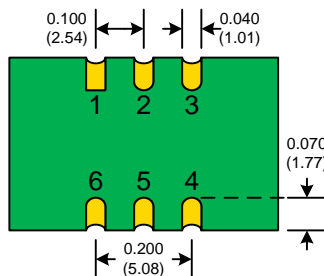
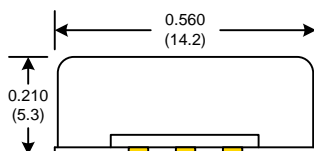
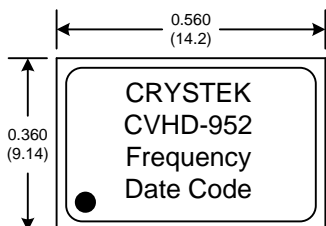
Available Frequencies (MHz):

148.351600 148.500

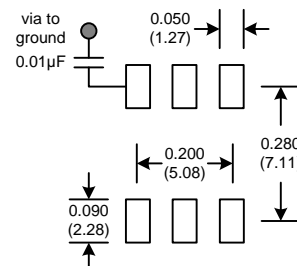
Applications:

HD Video Broadcast Equipment

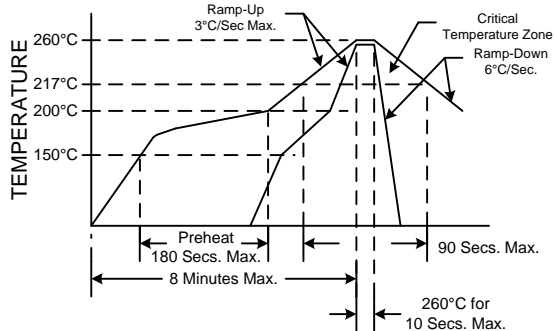
| PIN | Function |
|-----|--------------|
| 1 | Control Volt |
| 2 | E/D |
| 3 | GND |
| 4 | OUT |
| 5 | No Connect |
| 6 | Vdd |



SUGGESTED PAD LAYOUT



RECOMMENDED REFLOW SOLDERING PROFILE



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

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 |

Rev: B

Date: 30-Oct-12

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** APR= Absolute Pulling Range inclusive of all conditions