

Model CCSO-914X-1000 is a 1GHz SAW (surface acoustic wave) Clock Oscillator (CCSO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -138dBc/Hz phase noise at 10kHz offset, 5V input voltage, -40°C to +85°C operating temperature, FR5 PCB and 9×14 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -20dBc.

Applications include:

System Clock for Network Clock Generator/Synchronizer, Clock for DDS, Test and Measurement, Avionics, Point-to-Point Radios, and Multi-point Radios.

Rev: E

Date: 10-Feb-10

Page 1 of 3

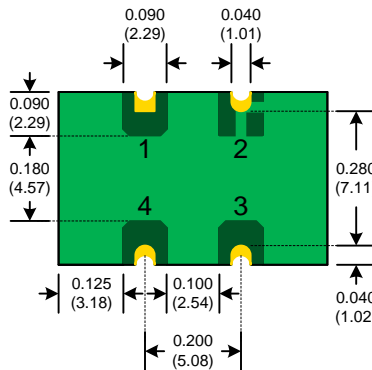
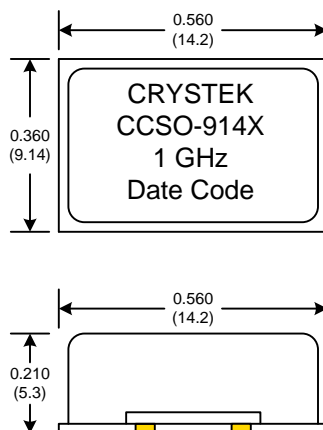


Frequency: 1GHz
Temperature Range: -40°C to +85°C
Storage: -45°C to 90°C
Input Voltage: 5.0V ± 0.25V

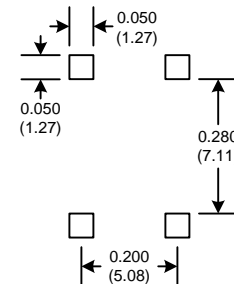
Frequency vs Temperature: ±100ppm Typ.
Input Current: 25mA Typ., 35mA Max
Output: True SineWave
Output Power: +8dBm Min. into 50 Ω Load
Start-Up Time: 2mSec Typ., 10mSec Max
2nd Harmonic: -20dBc Typ., -15dBc Max
Sub-Harmonics: None
Modulation BW: >20kHz @ -3dB
Jitter:
SONET OC-48(12kHz~80MHz) 0.18ps RMS Typ., 0.20ps RMS Max
SONET OC-192(50kHz~80MHz) 0.12ps RMS Typ., 0.15ps RMS Max

Phase Noise Typical:

| | |
|--------|-------------|
| 1kHz | -110 dBc/Hz |
| 10kHz | -138 dBc/Hz |
| 100kHz | -150 dBc/Hz |
| 1MHz | -160 dBc/Hz |
| 10MHz | -170 dBc/Hz |

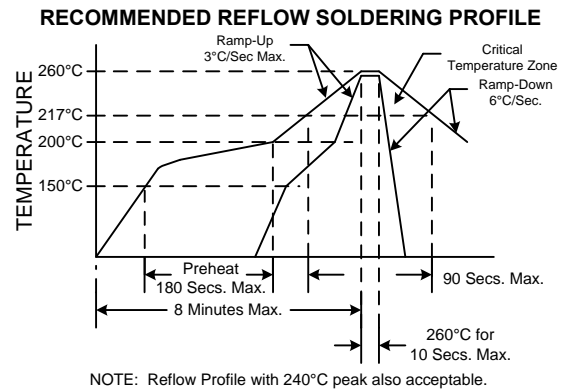
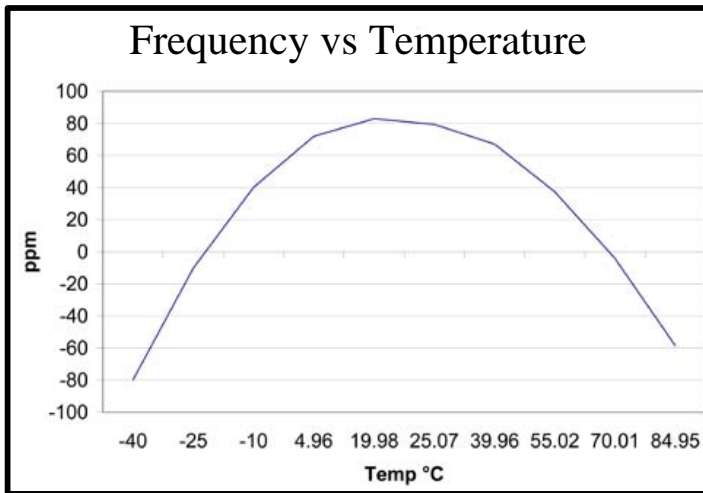
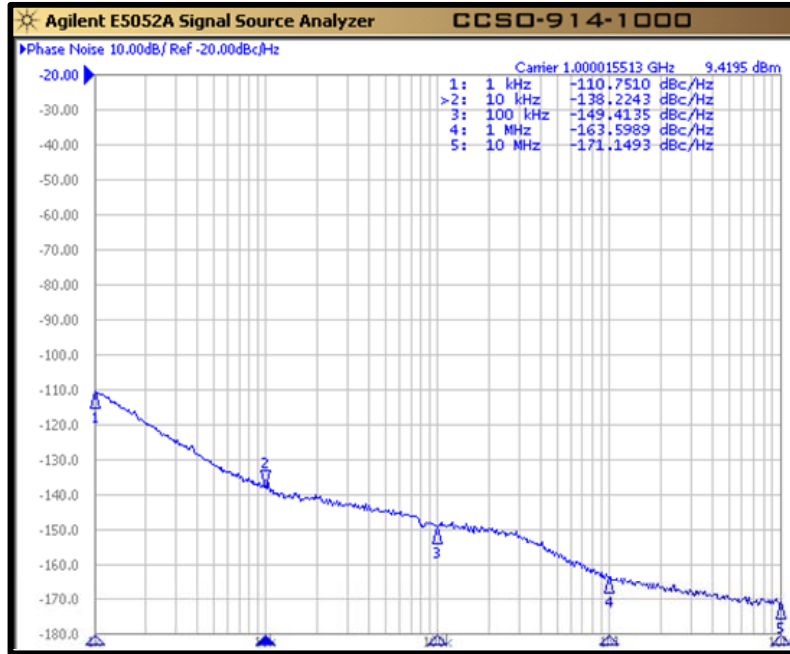


SUGGESTED PAD LAYOUT



| Pad | Connection |
|-----|------------|
| 1 | N/C |
| 2 | GND |
| 3 | Output |
| 4 | Vdd |

Rev: E
Date: 10-Feb-10
Page 2 of 3



| Parameter | Conditions |
|------------------------------|---|
| Mechanical Shock | MIL-STD-883, Method 2002, Condition B |
| Mechanical Vibration | MIL-STD-883, Method 2007, Condition A |
| Solderability | MIL-STD-883, Method 2003 |
| Solvent Resistance | MIL-STD-202, Method 215 |
| Resistance to Soldering Heat | MIL-STD-202, Method 210, Condition I or J |
| Thermal Shock | MIL-STD-883, Method 1011, Condition A |
| Moisture Resistance | MIL-STD-883, Method 1004 |

Rev: E
Date: 10-Feb-10
Page 3 of 3

