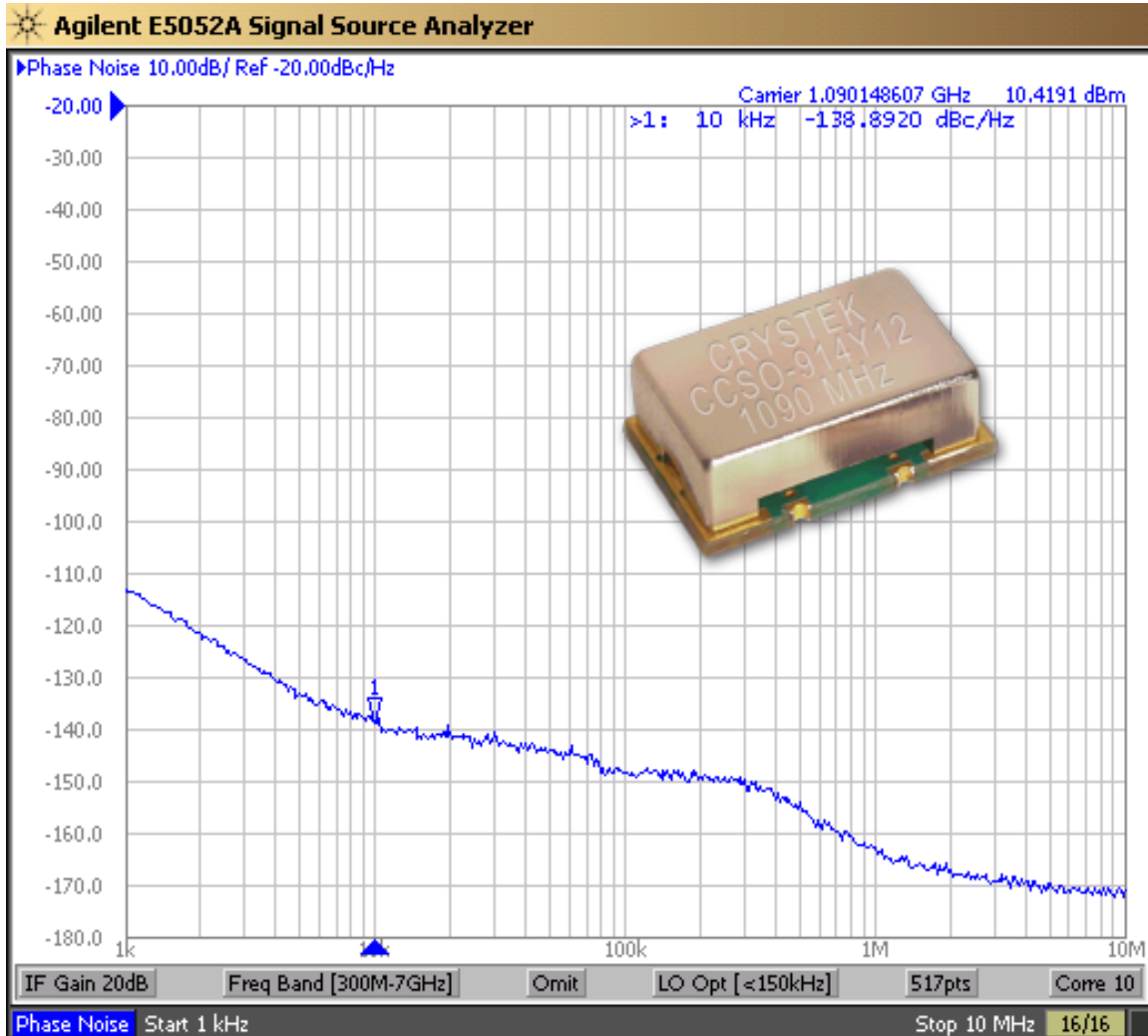


*Ultra-Low Phase Noise 1090MHz SAW Clock*



Model CCSO-914Y12-1090 is a 1090 MHz 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, 12V input voltage, -55°C to +105°C operating temperature, FR5 PCB and 9×14 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -20dBc.

Designed for Identification Friend or Foe (IFF) Application.

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CCSO-914Y12-1090  
True SineWave  
SAW Based Clock Oscillator  
9x14mm SMD  
12 Volt



**Frequency:** 1090 MHz  
**Temperature Range:** -55°C to +105°C  
**Storage:** -55°C to 110°C  
**Input Voltage:** 12.0V ± 0.25V

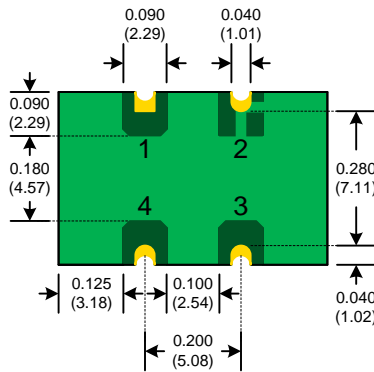
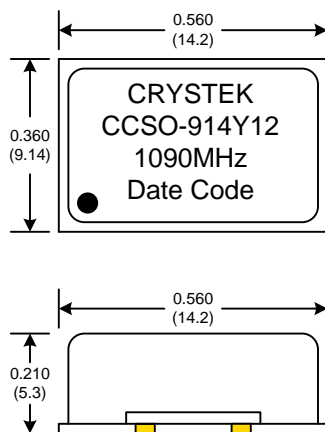
**Frequency vs Temperature:** ±250ppm Max  
**Input Current:** 30mA Typical, 40mA Max  
**Output:** True SineWave  
**Output Power:** +12dBm ±2dB into 50 ohm Load  
**Start-Up Time:** 2mSec Typical, 10mSec Max  
**2<sup>nd</sup> Harmonic:** -20dBc Typical, -15dBc Max  
**Sub-Harmonics:** None  
**Modulation BW:** >20kHz @ -3dB



**Phase Noise Typical:**

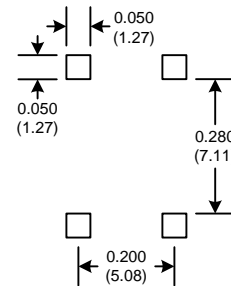
1kHz	-110 dBc/Hz
10kHz	-138 dBc/Hz
100kHz	-150 dBc/Hz
1MHz	-160 dBc/Hz
10MHz	-170 dBc/Hz

**G-sensitivity:** 0.9×10<sup>-9</sup> per g

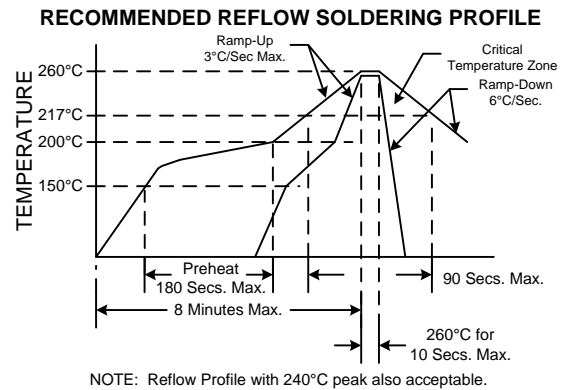
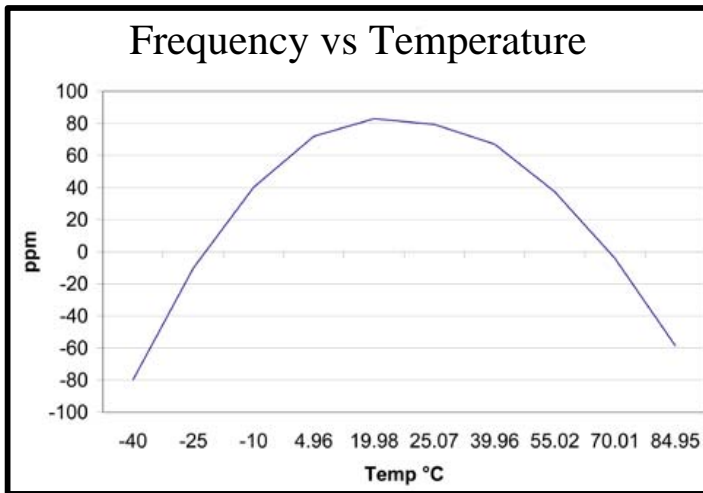
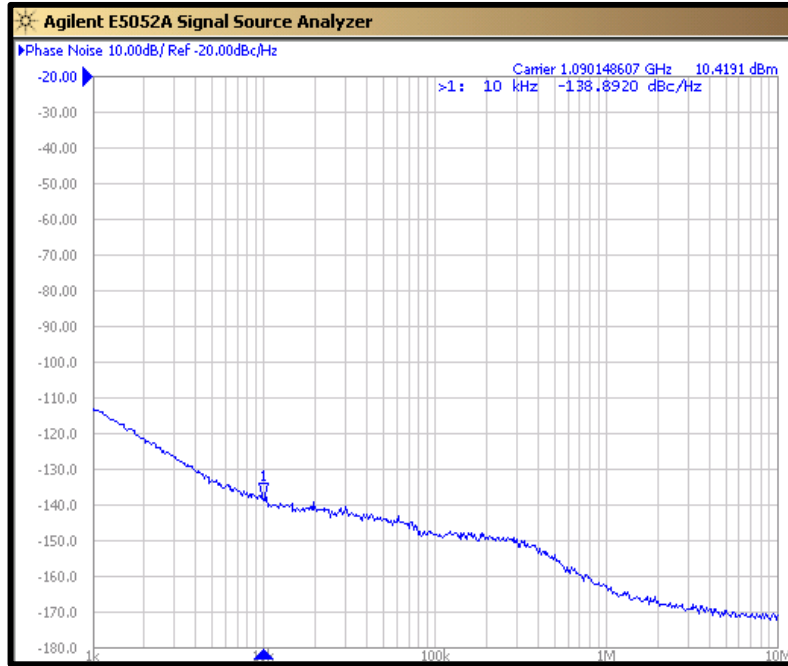


Pad	Connection
1	N/C
2	GND
3	Output
4	Vdd

**SUGGESTED PAD LAYOUT**



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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

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