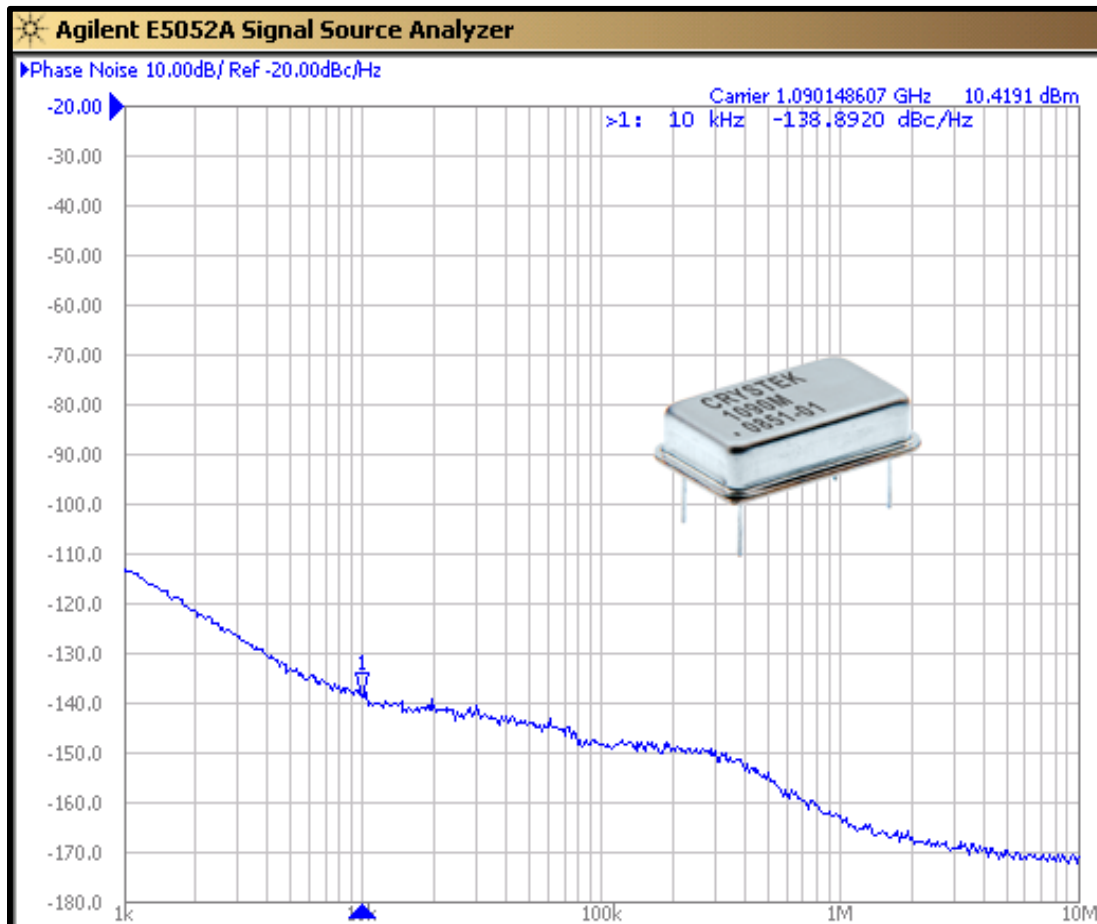


**CCSO-014-1090 Model**  
14 Pin DIP, 12V, True Sinewave



**Model CCSO-014-1090 is a 1.090GHz 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, 14 PIN DIP hermetic sealed package. The oscillator has no sub-harmonic and the second harmonic is -40dBc Max.**

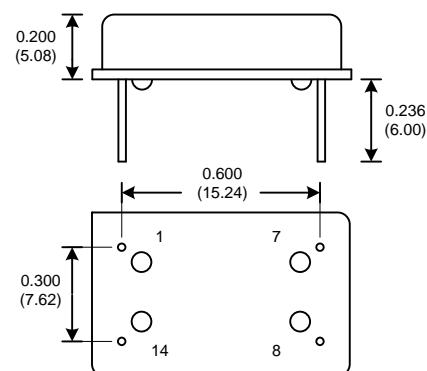
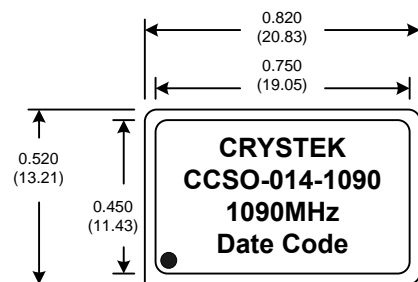
**Designed for Identification Friend or Foe (IFF) application.**

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**CCSO-014-1090 Model**  
**14 Pin DIP, 12V, True Sinewave**



<b>Frequency:</b>	<b>1.090 GHz</b>
<b>Temperature Range:</b>	<b>-55°C to 105°C</b>
<b>Storage:</b>	<b>-55°C to 110°C</b>
<b>Input Voltage:</b>	<b>12.0V ±0.25V</b>
<b>Supply Ripple:</b>	<b>150mV p-p Max</b>
<b>Freq. vs Temp.:</b>	<b>±250ppm Typical</b>
<b>Input Current:</b>	<b>30mA Typ., 40mA Max</b>
<b>Output:</b>	<b>True SineWave</b>
<b>Output Power:</b>	<b>+12dBm ±2dBm</b>
<b>Start-up time:</b>	<b>2ms Typ., 10ms Max</b>
<b>2nd Harmonic:</b>	<b>-35dBc Typ., -40dBc Max</b>
<b>Sub-harmonics:</b>	<b>None</b>
<b>Load:</b>	<b>50 Ω</b>
<b>Jitter:</b>	
<b>SONET OC-48(12kHz~80MHz)</b>	<b>0.18ps RMS Typ., 0.20ps RMS Max</b>
<b>SONET OC-192(50kHz~80MHz)</b>	<b>0.12ps RMS Typ., 0.15ps RMS Max</b>
<b>Phase Noise Typical:</b>	
<b>1kHz</b>	<b>-110 dBc/Hz</b>
<b>10kHz</b>	<b>-138 dBc/Hz</b>
<b>100kHz</b>	<b>-150 dBc/Hz</b>
<b>1MHz</b>	<b>-160 dBc/Hz</b>



PIN	Connection
1	N/C
7	GND
8	Output
14	Vdd

Parameter	Conditions
Mechanical Shock	MIL-STD-202, Method 213, Condition A
Mechanical Vibration	MIL-STD-202, Method 204, Condition A
Solderability	MIL-STD-202, Method 208
Solvent Resistance	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition C
Thermal Shock	MIL-STD-202, Method 107, Condition A
Moisture Resistance	MIL-STD-202, Method 106, 90% to 98% RH 10 Days
Terminal Strength	MIL-STD-202, Method 211, Condition A
Hermetic Seal	MIL-STD-202, Method 112, Procedure III, Condition C
Humidity	MIL-STD-202, Method 103
High Temperature Life (Operating)	MIL-STD-202, Method 108, Condition D, 1,000 hrs at +70°C
Acceleration	MIL-STD-202, Method 212, Condition A

Parameter	Conditions
100% Temperature Testing	10°C Steps -55/105°C
100% Start-Up Testing	-55°C and +85°C

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