



CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION



Ultra-Low Phase Noise SineWave VCXO

CVSS-945 Model

9×14 mm SMD, 5.0V, SineWave

Frequency Range:

10 MHz to 125 MHz

Temperature Range:

0°C to 70°C

(Option X)

-40°C to 85°C

Storage:

-45°C to 90°C

Input Voltage:

5.0V ± 0.5V

Control Voltage:

2.5V ± 2.5V

Settability At Nominal:

2.5V ± 0.5V

Tuning Sensitivity (Kv):

+25 ppm/V Typical

Input Current:

30mA Max

Output:

True SineWave

Pullability APR:

±20ppm Min

Linearity:

±10% Max

Output Power:

+5 dBm Min, +7 dBm Typical

Start-up time:

2ms Typical, 5ms Max

Load:

50 Ω

2nd Harmonic:

-25 dBc Max

Sub-harmonics:

None

Modulation BW:

>10kHz @ -3dB

Phase Noise Typical: 10Hz

-85 dBc/Hz

(@100MHz)

100Hz

-120 dBc/Hz

1kHz

-145 dBc/Hz

10kHz

-162 dBc/Hz

100kHz

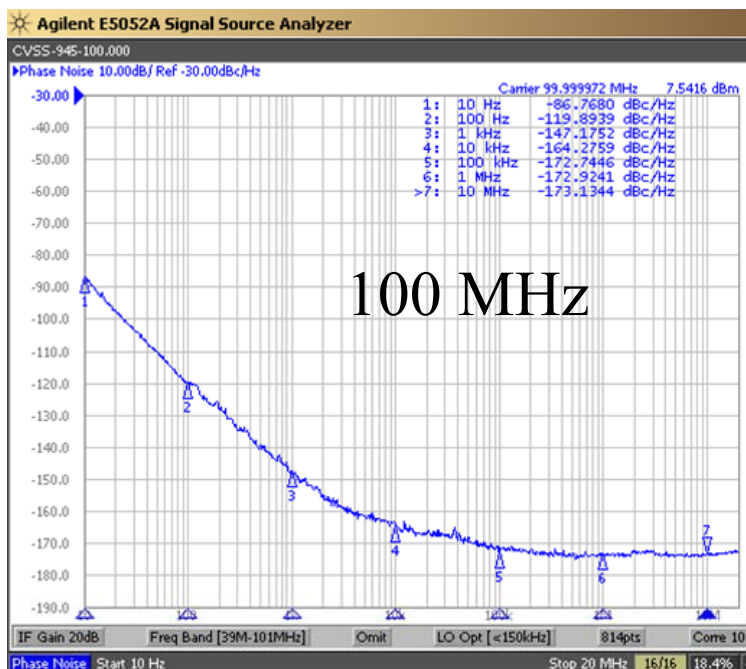
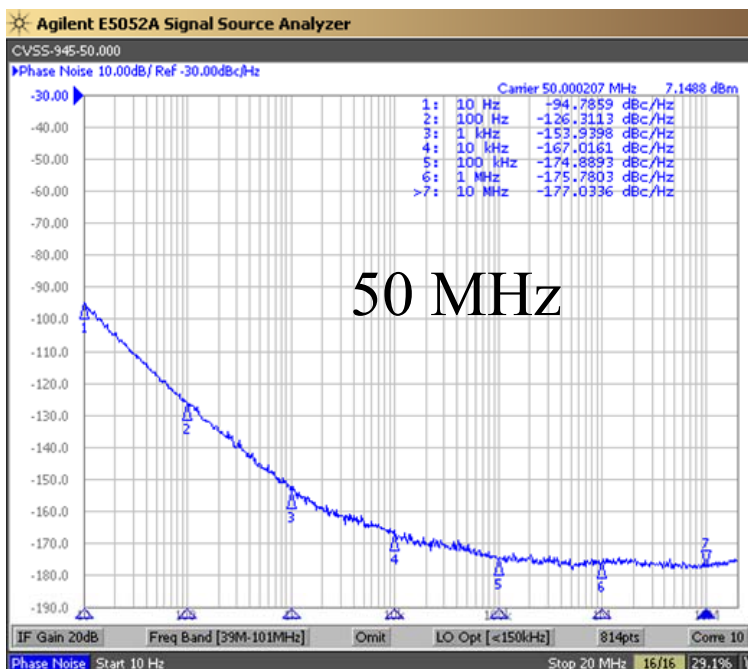
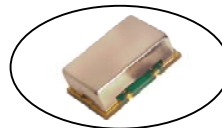
-170 dBc/Hz

1MHz

-170 dBc/Hz

Aging:

<3ppm 1st year, <1ppm every year thereafter



CVSS-945 Rev. G

Page 1 of 2



CRYSTEK
CORPORATION

12730 COMMONWEALTH DRIVE • FORT MYERS, FLORIDA 33913
PHONE: 239-561-3311 • 800-237-3061
FAX: 239-561-1025 • WWW.CRYSTEK.COM

Ultra-Low Phase Noise SineWave VCXO

CVSS-945 Model
9×14 mm SMD, 5.0V, SineWave

Crystek Part Number Guide

CVSS-945 X-125.000

#1 #2 #3 #4

#1 Crystek 9×14 SMD SineWave VCXO
#2 Model 945 = Ultra Low Noise 5.0V
#3 Temp. Range: Blank = 0/70°C, X = -40/85°C
#4 Frequency in MHz: 3 or 6 decimal places

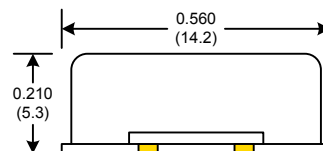
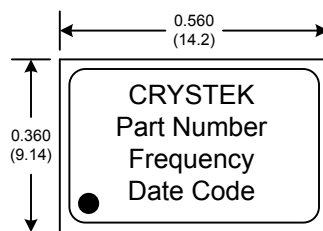
Example:
CVSS-945X-125.000 = 5.0V, -40/85°C, 125.000 MHz

Standard Frequencies MHz

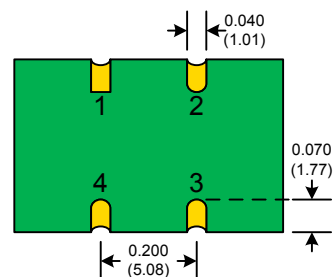
10.000
50.000
80.000
100.000
122.880
125.000

RECOMMENDED REFLOW SOLDERING PROFILE
900034 (See App Note listed on website)

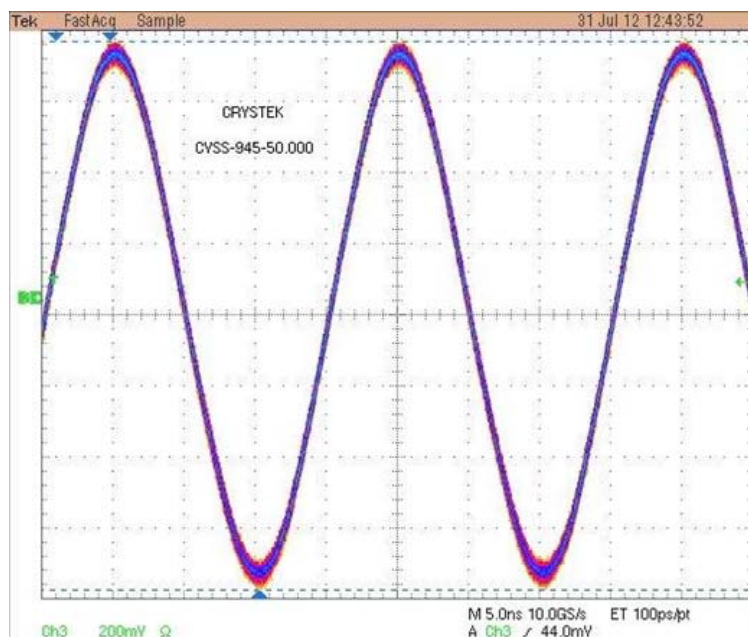
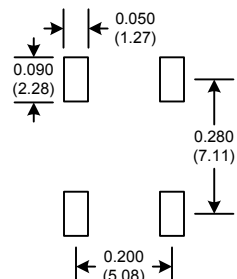
<http://www.crystek.com/specification/reflow/900034.pdf>



Pad	Connection
1	Volt Cont.
2	GND
3	OUT
4	Vdd



SUGGESTED PAD LAYOUT



Mechanical:

Shock:
Solderability:
Vibration:
Solvent Resistance:
Resistance to Soldering Heat:

MIL-STD-883, Method 2002, Condition B
MIL-STD-883, Method 2003
MIL-STD-883, Method 2007, Condition A
MIL-STD-202, Method 215
MIL-STD-202, Method 210, Condition I or J

Environmental:

Thermal Shock:
Moisture Resistance:

MIL-STD-883, Method 1011, Condition A
MIL-STD-883, Method 1004

Packaging:

Tape/Reel:

100ea, 250ea, 500ea 24mm Tape

CVSS-945 Rev. G

Page 2 of 2