CRYSTEK
CRYSTALS
A DIVISION OF CRYSTEK CORPORATION

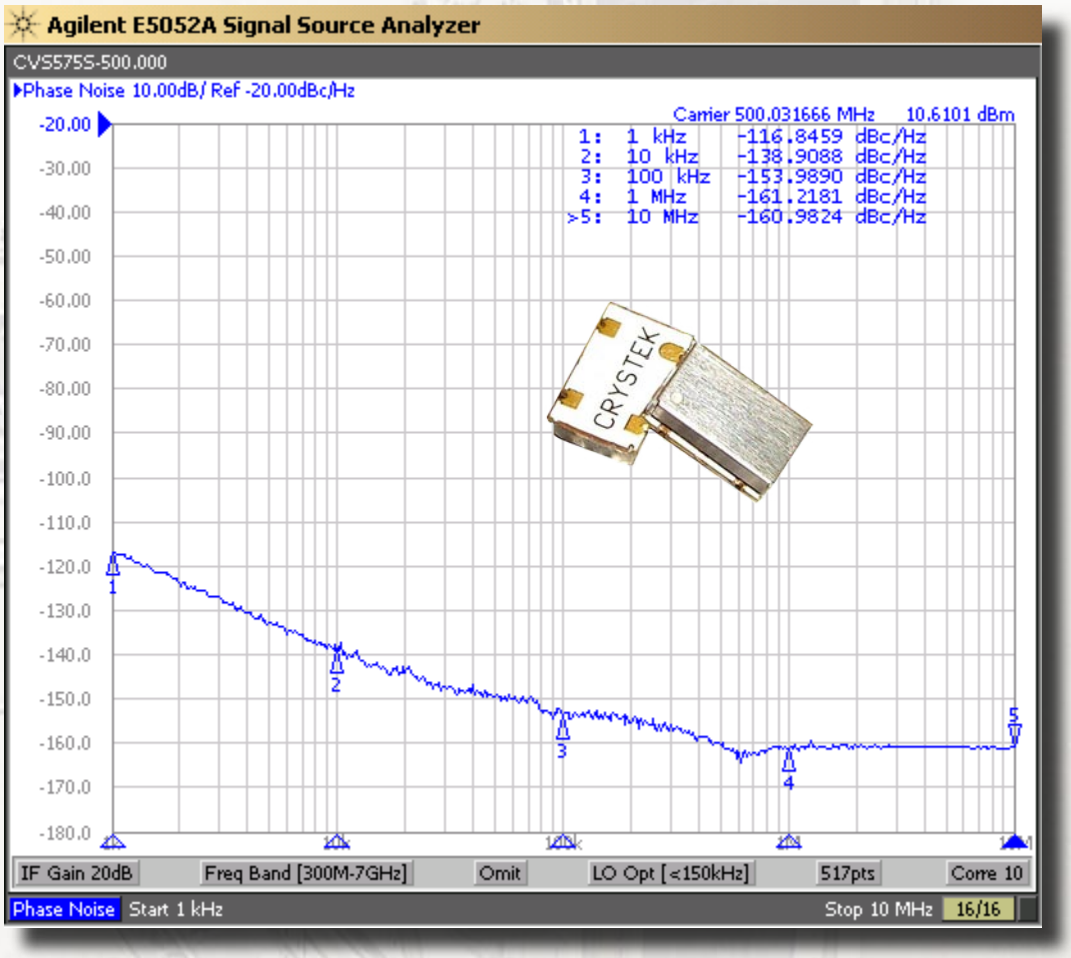
CVS575S-500.000

TRUE SINEWAVE
SAW BASED VCSO

5x7.5mm SMD

3.3 Volts

RoHS Compliant



Model CVS575S-500 is a 500MHz voltage-controlled SAW (surface acoustic wave) oscillator (VCSO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -135dBc/Hz phase noise at 10kHz offset, 3.3V input voltage, -20 to +70C operating temperature, and 5x7.5 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -14dBc.

Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.

CRYSTEK CORPORATION
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Rev.: A
Date: 05-12-08

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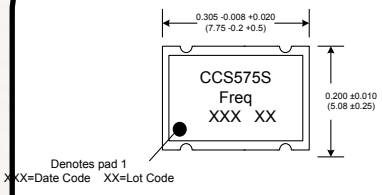
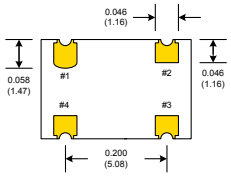
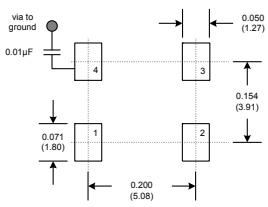
Frequency:	**500 MHz**
Temperature Range:	**-20°C to 70°C**
Storage:	**-40°C to 90°C**
Input Voltage:	**3.3V ± 0.15V**
Control Voltage:	**1.65V ± 1.65V**
Settability At Nominal (25°C):	**1.5V ± 0.5V**
Freq. vs Temp.	**+100ppm, -150ppm Typ.**
Input Current:	**20mA Typ., 25mA Max**

Output:	**True SineWave**
Pullability APR:	**±50ppm Min.**
Linearity:	**±20% Max**
Output Power:	**+7dBm Min. into 50 Ohm Load**
Start-up time:	**2ms Typ., 10ms Max**
2nd Harmonic:	**-14dBc Typ., -10dBc Max**
Sub-harmonics:	**None**
Modulation BW:	**>20KHz @ -3dB**
Phase Jitter: 12KHz~80MHz	**<1ps RMS (1-sigma) Max**





SUGGESTED PAD LAYOUT



Pad	Connection
1	Volt Control
2	GND
3	Output
4	Vdd

Dimensions inches (mm)
All dimensions are Max unless otherwise specified.

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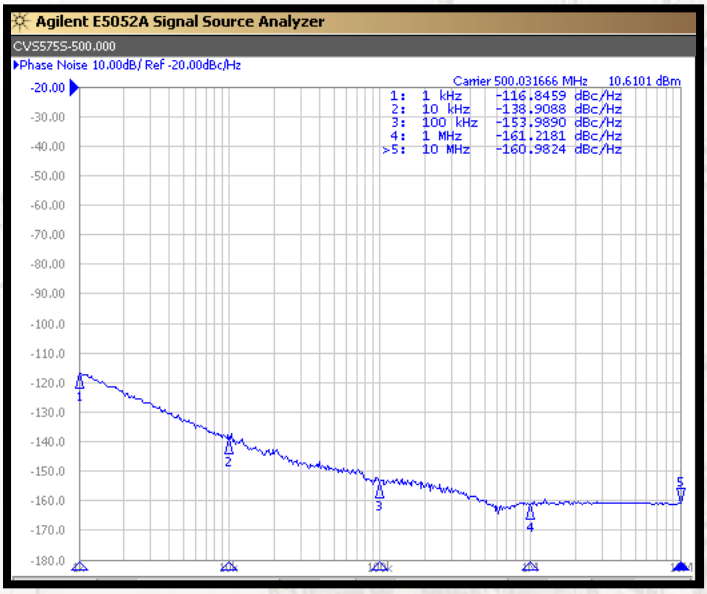

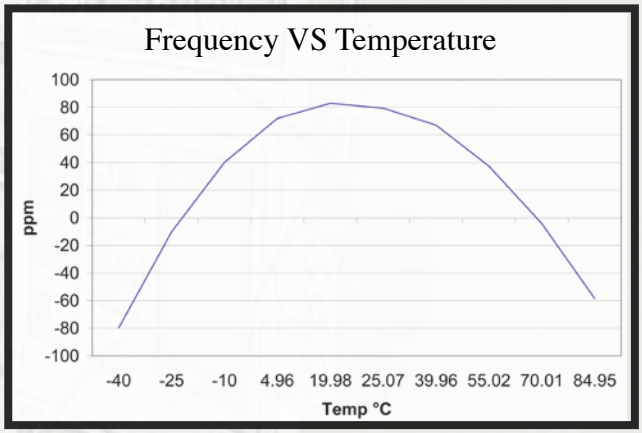

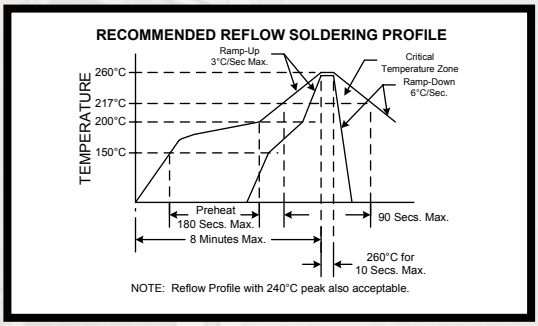

Parameter	Conditions
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2003
Solvent Resistance	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition I or J
Thermal Shock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