

**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°C to +70°C operating temperature, and 5×7.5 mm SMT package. The oscillator has no sub-harmonic and the second harmonic is typically -14dBc.**

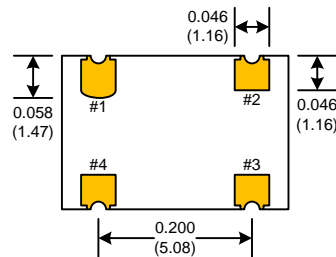
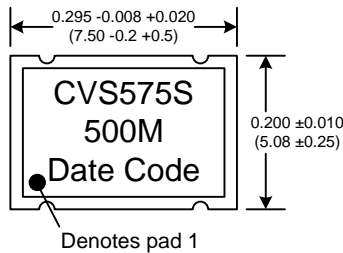
**Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.**

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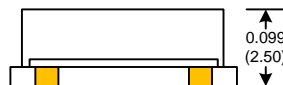
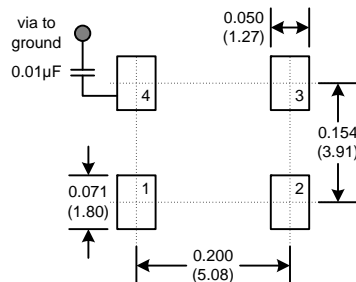
**Frequency:** 500 MHz  
**Temperature Range:** -20°C to 70°C  
**Storage:** -40°C to 90°C  
**Input Voltage:** 3.3V ±0.15V  
**Control Voltage:** 1.65V ±1.65V  
**Settability At Nominal (25°C):** 1.5V ±0.5V  
**Freq. vs Temperature:** +100ppm, -150ppm Typical  
**Input Current:** 20mA Typ., 25mA Max

**Output:** True SineWave  
**Pullability APR:** ±50ppm Min.  
**Linearity:** ±20% Max  
**Output Power:** +7dBm Min. into 50 Ω 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



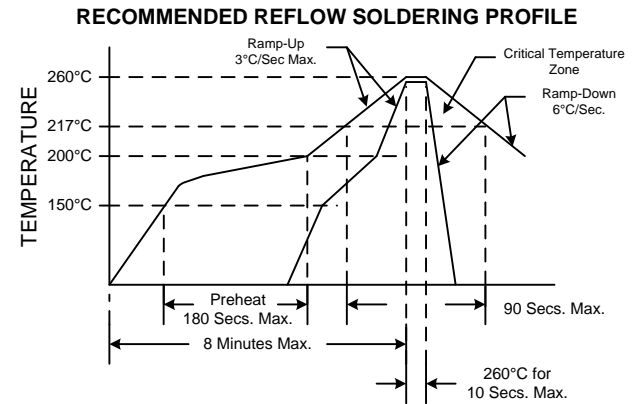
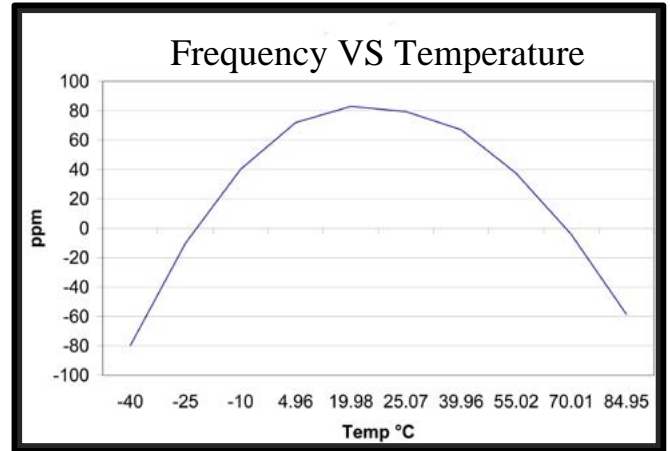
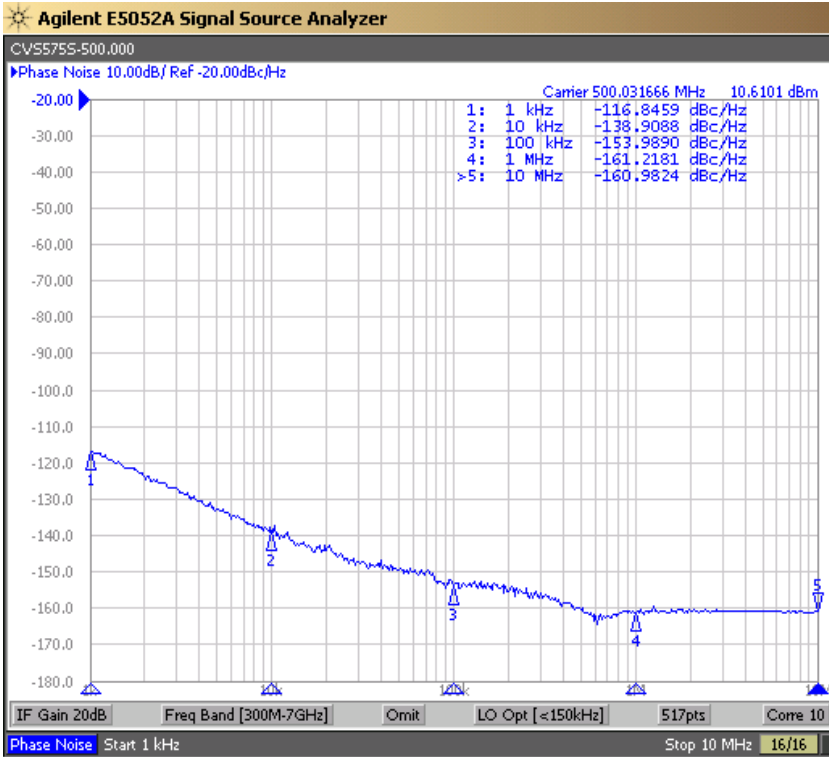
PIN	Function
1	Volt Control
2	GND
3	OUT
4	Vdd

**SUGGESTED PAD LAYOUT**



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

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NOTE: Reflow Profile with 240°C peak also acceptable.

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
Resistance to Solvents	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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