

**Model CVS575S-500 is a 500 MHz voltage-controlled SAW (surface acoustic wave) oscillator (VCISO). SAW crystal technology provides low-noise and low-jitter performance with true sinewave output. Features include -135 dBc/Hz phase noise at 10 kHz offset, 3.3 V input voltage, 0°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 -14 dBc.**

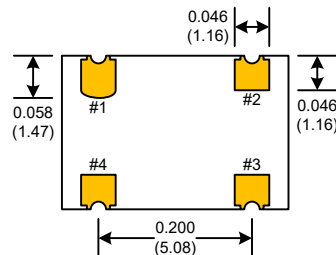
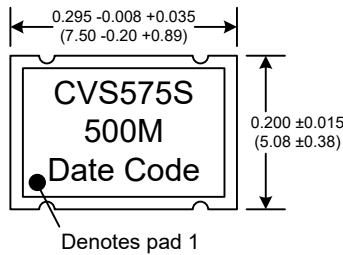
**Applications include PLL frequency translation, test and measurement, avionics, point-to-point radios, and multi-point radios.**

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**Frequency:** 500 MHz  
**Operating Temperature Range:** 0°C to 70°C  
**Storage Temperature Range:** -45°C to 90°C  
**Input Voltage:** 3.3V ±0.15V  
**Control Voltage Range:** 0V to 3.3V  
**Settability At Nominal (25°C):** 0.5V to 2.0V  
**Freq. vs Temperature:** +100ppm, -150ppm Typical  
**Input Current:** 20mA Typical, 25mA Max

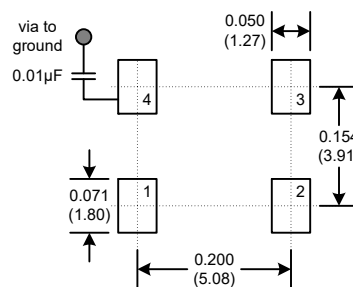
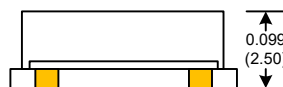
**Output:** SineWave  
**Pullability APR:** ±50ppm Min  
**Linearity:** ±20% Max  
**Output Power:** +7dBm Min into 50 Ω Load  
**Start-up time:** 2ms Typical, 10ms Max  
**2nd Harmonic:** -14dBc Typical, -10dBc Max  
**Sub-harmonics:** None  
**Modulation BW:** >20 kHz @ -3dB  
**Phase Jitter:** 12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



**PAD FINISH:** Immersion Gold (ENIG); 5 micro inches maximum

PIN	Function
1	Volt Control
2	GND
3	OUT
4	Vdd

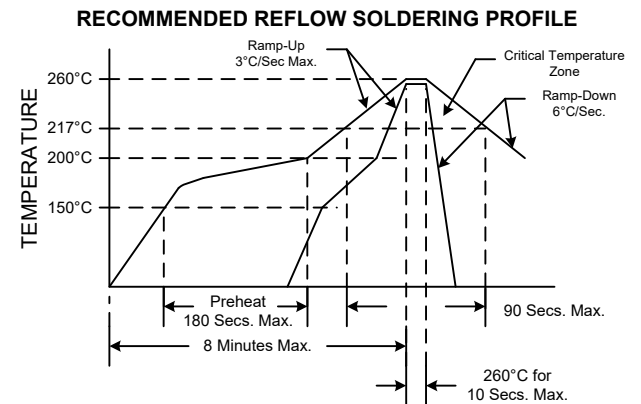
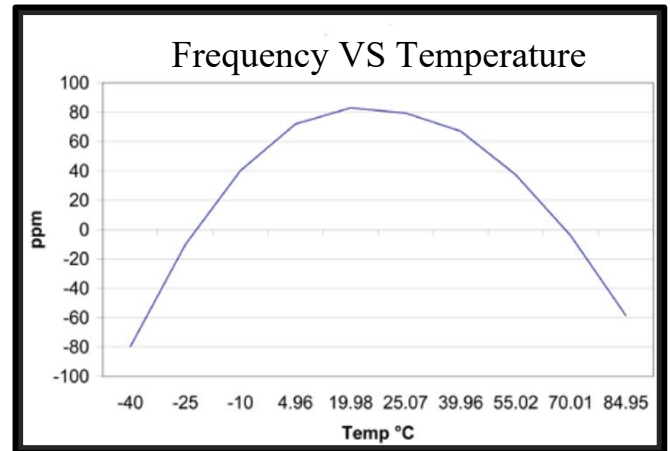
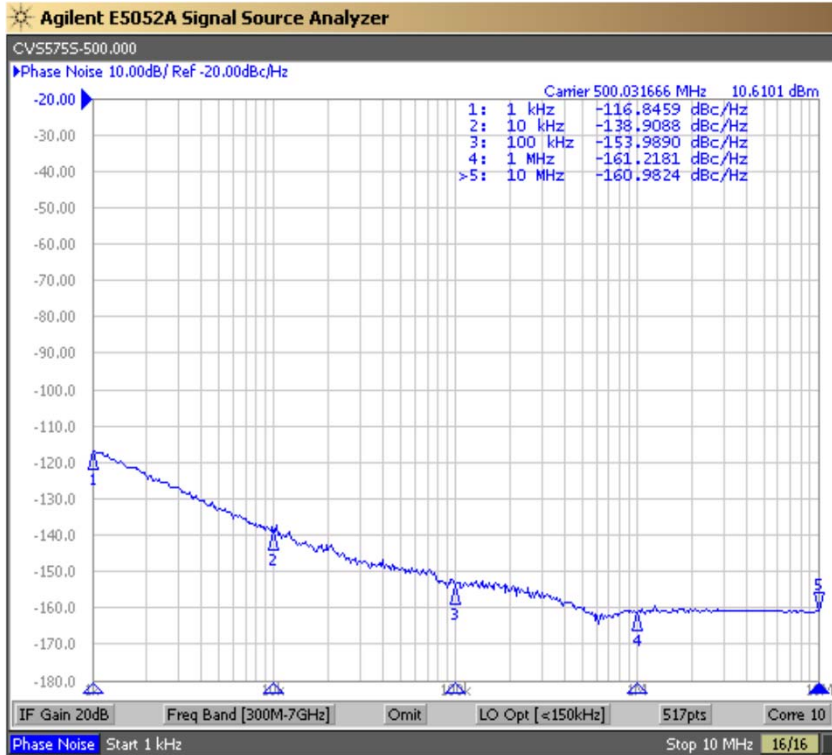
**SUGGESTED PAD LAYOUT**



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

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Specifications subject to change without notice.



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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