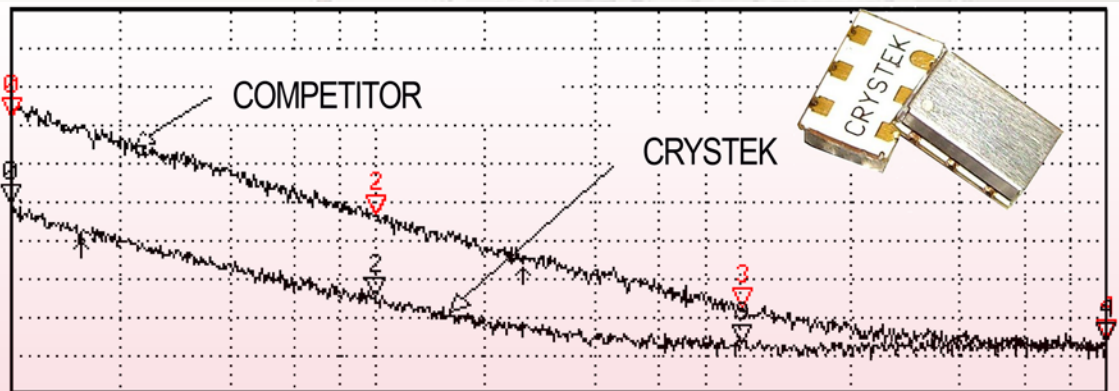




**CRYSTEK**  
CRYSTALS  
A DIVISION OF CRYSTEK CORPORATION

**CVS575**  
VOLTAGE CONTROLLED  
SAW OSCILLATOR  
3.3V LVPECL  
5x7.5mm SMD



COMPETITOR			CRYSTEK		
N	SWP PARAM	VAL	N	SWP PARAM	VAL
0	1 kHz	-78.272 dBc	0	1 kHz	-101.77 dBc
2	10 kHz	-103.95 dBc	2	10 kHz	-125.84 dBc
3	100 kHz	-128 dBc	3	100 kHz	-138.11 dBc
4	1 MHz	-136.61 dBc	4	1 MHz	-137.72 dBc

**Model CVS575 is a SAW(surface acoustic wave) based Voltage Controlled Oscillator (VCSO) designed for High Performance PLLs. It is an ideal choice for Telecommunication applications needing to meet Low Jitter generation requirements.**

**It is housed in the industry standard 5x7.5x2.5mm SMD package. The Enable/Disable function was designed to be used with CMOS logic levels for ease of interfacing. It is not necessary to convert to LVPECL logic to turn the Output ON and OFF.**



# CRYSTEK

## CRYSTALS

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### CVS575

#### VOLTAGE CONTROLLED SAW OSCILLATOR

#### 3.3V LVPECL

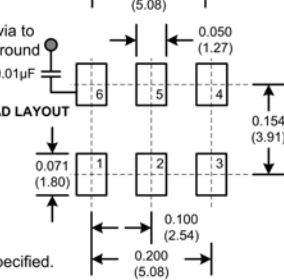
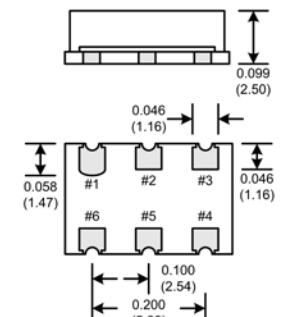
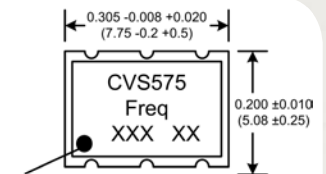
#### 5x7.5mm SMD



Performance Specification	Min.	Typ.	Max	Units
Nominal Frequency: Customer Specified	315		1000	MHz
Absolute Pulling Range	±50			ppm
Frequency Stability		±150		ppm
Linearity		±15		%
Tuning Sensitivity, Kv		+275		ppm/V
Output Phase Noise				
@ 1KHz Offset		-100		dBc/Hz
@ 10KHz Offset		-125		dBc/Hz
@ 100KHz Offset		-138		dBc/Hz
@ 1MHz Offset		-140		dBc/Hz
@ 10MHz Offset		-142		dBc/Hz
Jitter				
SONET OC-48 (12KHz-20MHz)		0.18		pS,RMS
SONET OC-192 (50KHz-80MHz)		0.12		pS,RMS
Rise/Fall Times, tr/TF 20-80%	100		240	pS
Output High Voltage, VOH	2.215		2.420	V
Output Low Voltage, VOL	1.470		1.745	V
Enable High Voltage, VIH	2.0		VCC	V
Disable Low Voltage, VIL	GND		0.8	V
Enable High Current, I <sub>IH</sub>			+150	uA
Enable Low Current, I <sub>IL</sub>			-150	uA
Duty Cycle	45	50	55	%
Supply Voltage	3.0	3.3	3.6	V
Supply Current, I <sub>cc</sub>		82		mA
Control Voltage	0		3.3	V
Input Impedance		100		Kohm
Input Modulation		500		KHz
Operating Temp.	-20		+70	°C
Storage Temp.	-45		+90	°C

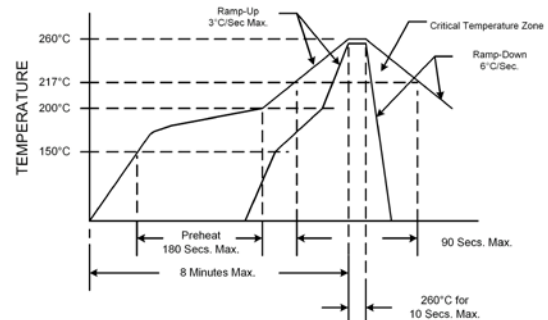
Denotes pad 1  
XXX=Date Code XX=Lot Code

Pad	Connection
1	Volt. Cntrl.
2	E/D
3	GND
4	OUT
5	COU <sub>T</sub>
6	V <sub>dd</sub>



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

#### RECOMMENDED REFLOW SOLDERING PROFILE



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

Parameter	Conditions
Mechanical Shock	MIL-STD-883, Method 2002
Mechanical Vibration	MIL-STD-883, Method 2007
Solderability	MIL-STD-883, Method 1014
Resistance to Solvents	MIL-STD-883, Method 2016