

ACT-SMPV - 6 Surface Mount VCXO

The ACTSMPV6 is a 6-pad surface mount Voltage Controlled Crystal Oscillators (VCXO) housed in a 14.0X10.3 mm PCB based package with a metal lid. These devices can be pulled between $\pm 30\text{ppm}$ & $\pm 100\text{ppm}$ from the nominal frequency by varying the voltage on pin 1 (Dependent on Vdd). Outputs are available in PECL (5V Vdd), LVPECL and LVDS (3.3V Vdd).

Applications include PLL circuits, Set Top Box, MP3 Players, Audio/Video modulations, Video Game Consoles, HDTV and many more.

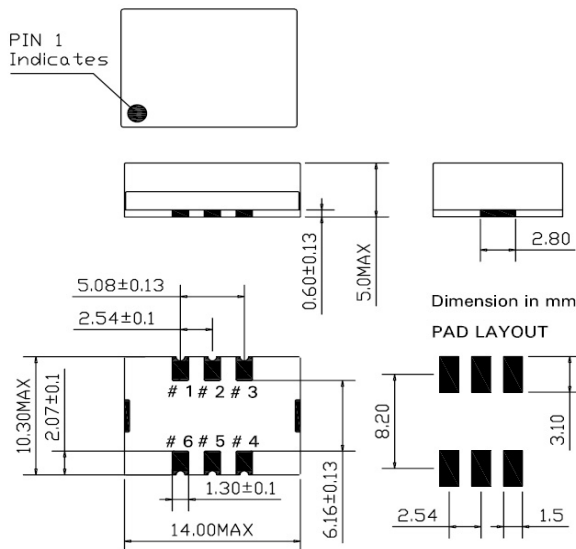
Compatible with Eu Directive
2002/EC - RoHS



Specification

Parameter	Symbol	Specification		Condition
Frequency Range	f_0	19.44~180MHz @ 25 $\pm$ 5°C std (Some higher frequencies available)		Please Specify
Frequency Stability	$\Delta f/f_0$	$\pm 20\text{ppm} \sim \pm 100\text{ppm}$ std (Some tighter stabilities available)		Please Specify
Temp Operating Range	Topr	0~70°C Standard, -40~+85°C Option		Please Specify
Storage Temp Range	Tstg	-55~+125°C		
Supply Voltage	Vdd	3.3V $\pm$ 5%	5.0V $\pm$ 5%	Please Specify
Supply Current	Iop	80mA max	120mA max	
Voltage Control	Vc	1.65Vdc $\pm$ 1.65V	2.5Vdc $\pm$ 2.0V	
Output		LVDS	LVPECL	PECL
Output Load	N/CL	100 Ω Diff	Vdd -2V to 50 Ω	
Output Voltage	VOH	1.375Vdc min	Vdd -1.025Vdc min	
	VOL	1.125V max	Vdd -1.620Vdc min	
Duty Cycle	Tw/t	40/60% Standard, 45/55% Option		Please Specify
Pulling Range	Δf_c	$\pm 30\text{ppm} \sim \pm 100\text{ppm}$		
Jitter		3.5ps RMS max		
Rise & Fall Times	tr/ta	2nS max		20% to 80% of Waveform
Linearity		$\pm 10\%$ max		
Slope Polarity		Positive		
Modulation Bandwidth($\pm 3\text{dB}$)		10KHz min		
Input Impedance		50K Ω		
Aging		$\pm 3\text{ppm/yr}$		
Phase Noise	Fa	See Phase Noise example on Page 2		

DIMENSIONS (mm)



Pin Connection	
#1	V control
#2	Tri-State or N./C
#3	Ground
#4	Output
#5	Complementary Output
#6	Vdd

Pad surface material Au

Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Frequency, Frequency Tolerance, Operating Temperature Range, Supply Voltage, Output & Symmetry
In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

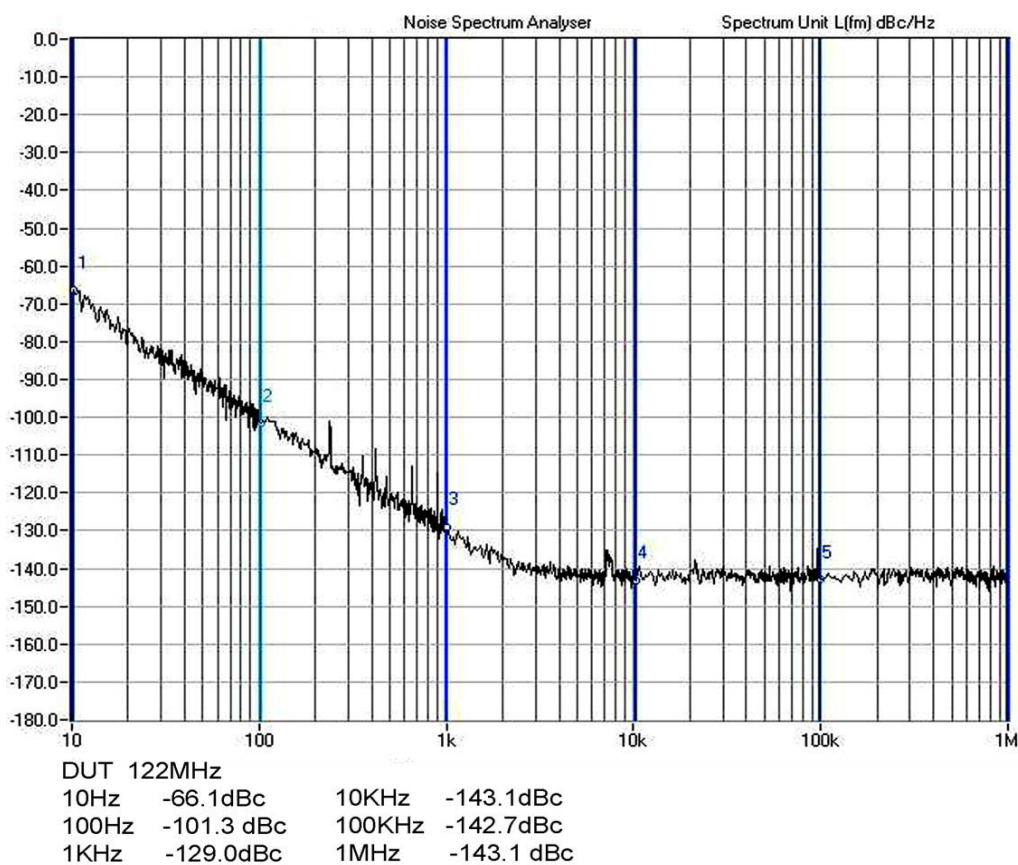
ISO9001:2000 Registered

For quotations or further information please contact us at:
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<http://www.actcrystals.com>

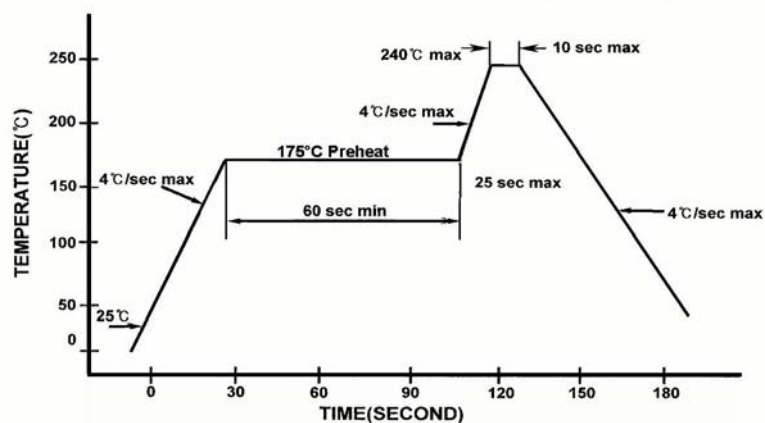
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Example Phase Noise (120 MHz)



RECOMMENDED REFLOW SOLDERING PROFILE



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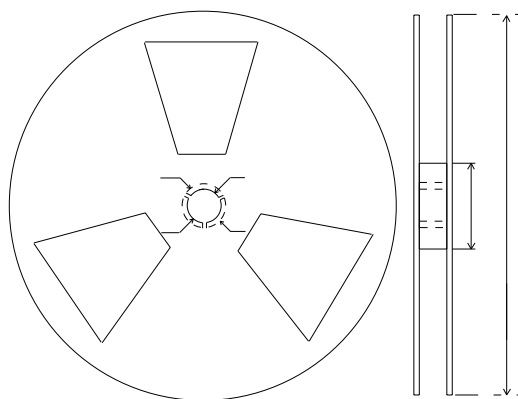
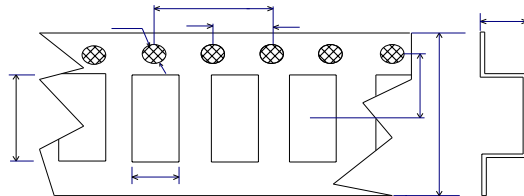
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Tape and Reel Dimensions (mm) REELS OF 500PCS



A	B	C	D	E	F	G	H	J	K	L	M	Qty/Reel
10.8	14.8	1.5	11.5	5.5	4.0	8.0	24	330	13	23	60	500

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