

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 ± 30 ppm & ± 100 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.

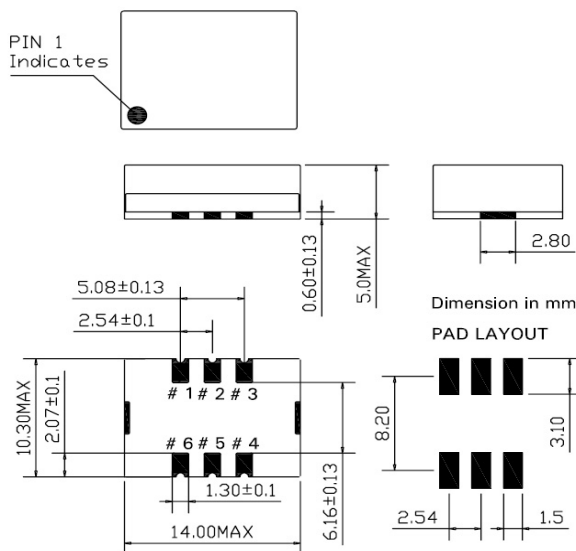
Compatible with Eu Directive
2002/EC - RoHS



Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	19.44~180MHz @ 25 \pm 5°C std (Some higher frequencies available)	Please Specify
Frequency Stability	$\Delta f/fo$	± 20 ppm~ ± 100 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\pm5%	5.0V\pm5%
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	Δfc	± 30 ppm~ ± 100 ppm	
Jitter		3.5ps RMS max	
Rise & Fall Times	tr/tf	2nS max	20% to 80% of Waveform
Linearity		± 10 % max	
Slope Polarity		Positive	
Modulation Bandwidth(± 3 dB)		10KHz min	
Input Impedance		50K Ω	
Aging		± 3 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

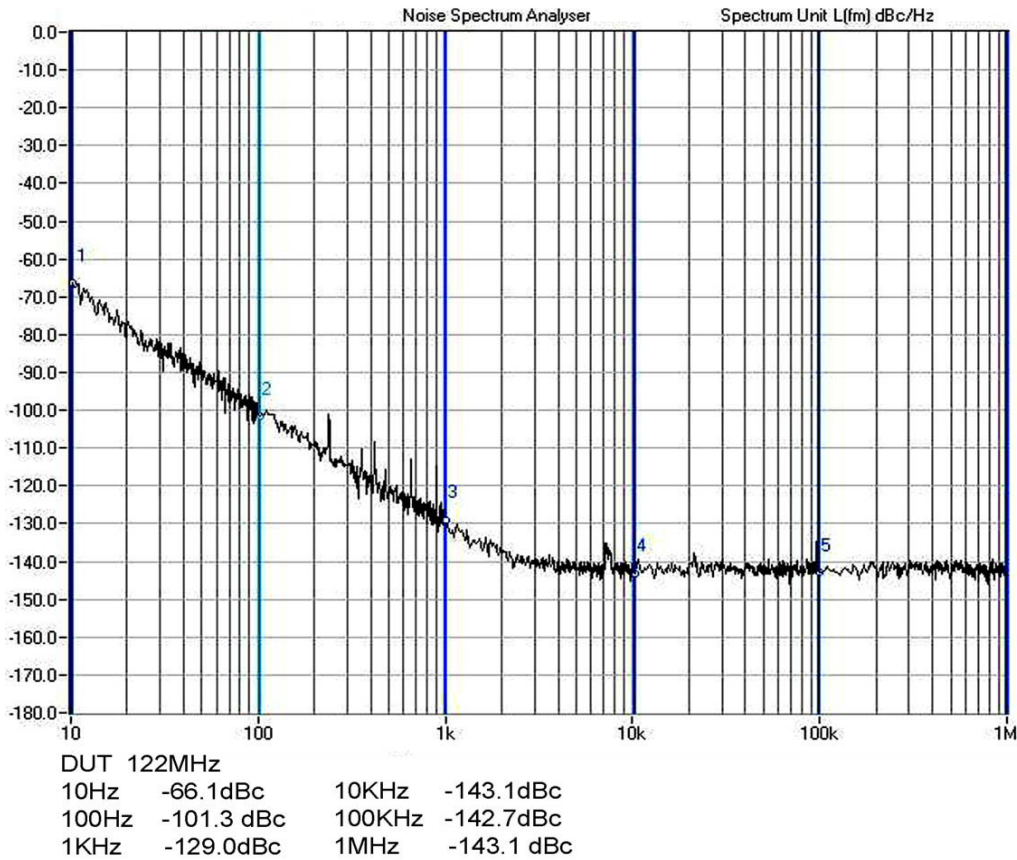
For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

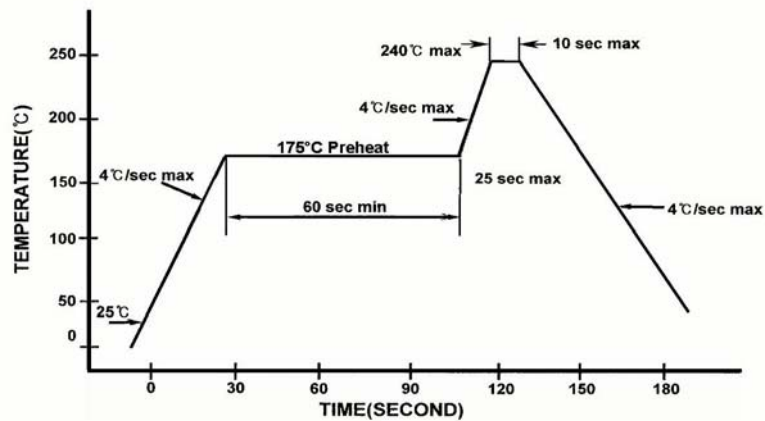
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Example Phase Noise (120 MHz)



RECOMMENDED REFLOW SOLDERING PROFILE



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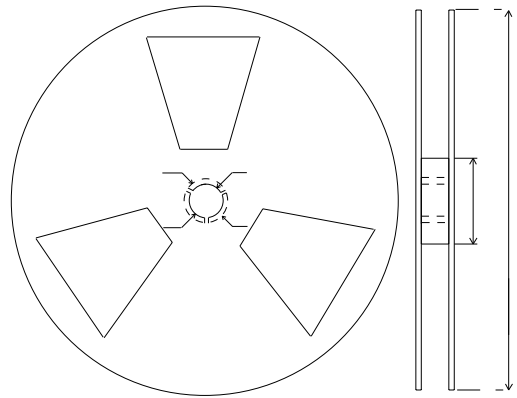
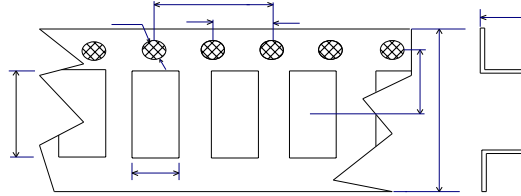
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Tape and Reel Dimensions (mm) REELS OF 500PCS



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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