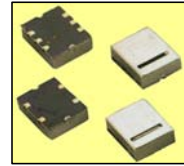


ACT8MSV - 4/6

The ACT8MSV-4 is a family of 4/6-pad surface mount Voltage Controlled Crystal Oscillators (VCXO) housed in a 11.4 x 9.6 mm package with a metal lid. These devices can be pulled between ±30ppm & ±200ppm from the nominal frequency by varying the voltage on pin 1 (dependant on VDD). A low noise (LN) version is available on request.

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

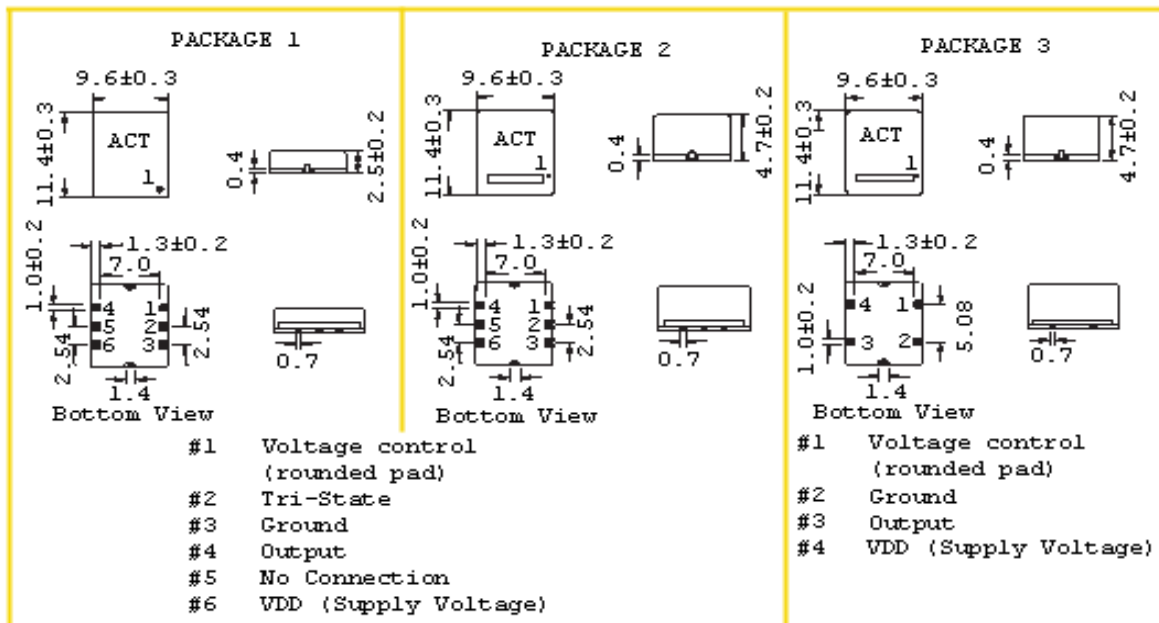
Compatible with Eu Directive
2002/EC - RoHS



Specification

Parameter	Symbol	Specification		Condition
Supply Voltage	VDD	3.3VDC ±5%	5.0VDC ±5% max	
Frequency Range	fo	0~70°C 3.3V 500KHz ~ 125MHz	0~70°C 5.0V 500KHz ~156MHz	Please specify
		-40~85°C 3.3V 500KHz ~ 90MHz	-40~85°C 5.0V 500KHz~140MHz	
Low Noise (LN) version 3.3 & 5.0V 10~170MHz				
Frequency Stability	Δf/fo	±25ppm ~ 100ppm ±25ppm not available on some versions.		Please specify
Temp Operating Range	Topr	0 to +70°C (std) & -40 ~ +85°C		Please specify
Storage Temp Range	Tstg	-40 to 85°C		
Supply Current	Iop	15 ~45mA		Frequency dependant
Duty Cycle	Tw/t	40/60%		Please specify
Rise & Fall Time	Tr/Tf	5nS max 2nS typical (LN 3nS typical)		
Output Logic		TTL or HCMOS (LN HCMOS Only)		
Output Load	N/CL	10TTL / 15~50pF HCMOS		
Output Voltage	VOL	TTL	0.4 V max	0.4 V max
		CMOS	0.33 V max	0.5 V max
		CMOS(LN)	0.4 V max	0.4 V max
	VOH	TTL	2.4 V min	2.4 V Min
		CMOS	2.97 V min	VDD-0.5 V Min
		CMOS(LN)	2.4 V min	VDD-0.5 V Min
Voltage Control	Vc	0.3 ~3.0V Nominal fo 1.65±0.2V	0.5~4.5V Nominal fo 2.	
Pulling Range	Δfc	±30 ~ ±150ppm	±80 ~ ±200ppm	
Linearity		10% max (6% typical)		
Slope Polarity		Monotonic and Positive (negative available on request)		
Modulation Bandwidth(±3dB)		10 KHz min		
Input Impedance		10KΩ @ 10KHz min		
Start Up Time	Tosc	10mS max (5mS typical)		
Aging	Fa	± 5ppm / year max		@25°C
Jitter one sigma, (155.520MHz),5V		25ps typical, 28ps max		
Jitter one sigma, (155.520MHz),5V		LN 20ps typical, 25ps max		

DIMENSIONS (mm)



- | | | | |
|----|-------------------------------|----|-------------------------------|
| #1 | Voltage control (rounded pad) | #1 | Voltage control (rounded pad) |
| #2 | Tri-State | #2 | Ground |
| #3 | Ground | #3 | Output |
| #4 | Output | #4 | VDD (Supply Voltage) |
| #5 | No Connection | | |
| #6 | VDD (Supply Voltage) | | |

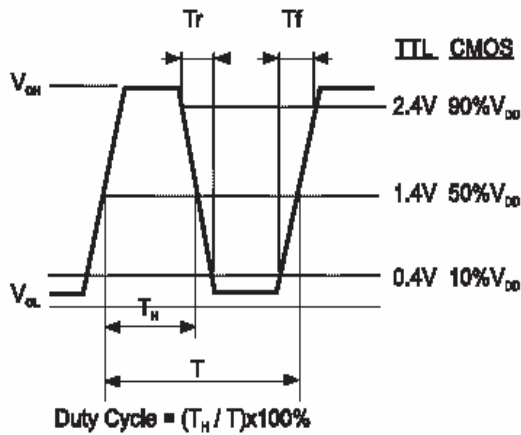
Please note that all parameters can not necessarily be specified in the same device
 Customer to specify : Frequency, Frequency Tolerance, Operating Temperature Range, Supply Voltage & Symmetry
 In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

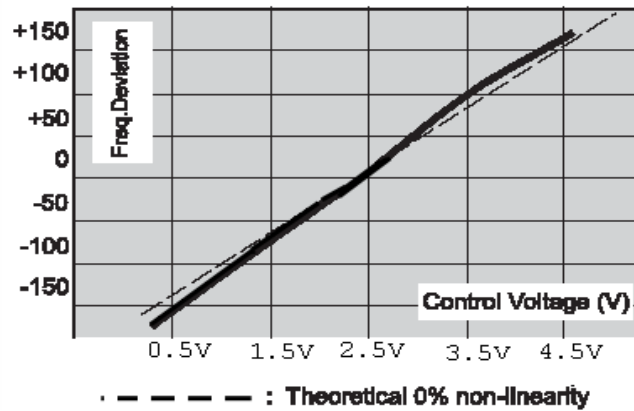
For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK
<http://www.actcrystals.com>

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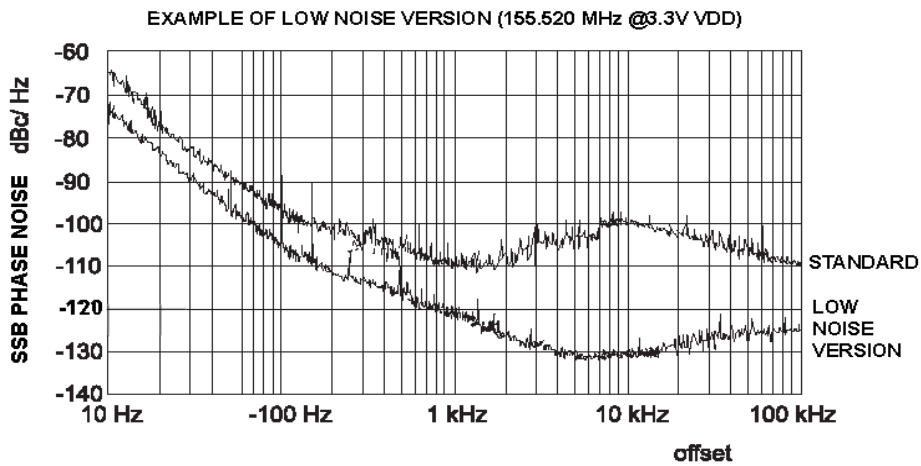
WAVEFORM



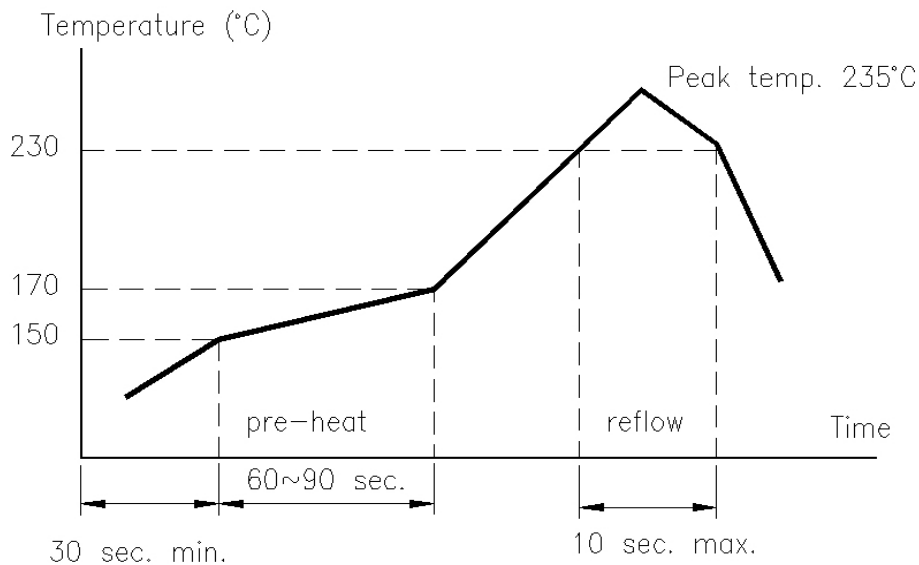
VOLTAGE CONTROL CHARACTERISTIC



LOW NOISE (LN) VERSION:



SOLDERING CONDITIONS



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