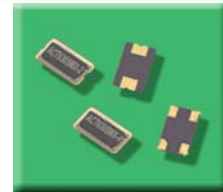


## ACT630SMX-2/4

The ACT630SMX-2/4 family is a low cost, 2/4 pad, high quality, low aging 6x3.5mm SMD Crystal in a ceramic base / metal lid package, seam welded for good long term reliability. The 4 pad device has the lid grounded via the package to reduce EMI issues. The wide frequency range and specification options ensure suitability for many applications.

**APPLICATIONS:** Wireless, Audio-visual, ATM, Cordless Phones, Pagers, Micro clock, Notebook, Instrumentation, Office automation, Audio-visual, Process Control, Consumer & Communications.

Compatible with Eu Directive  
2002/EC - RoHS



### Specification

Under Change

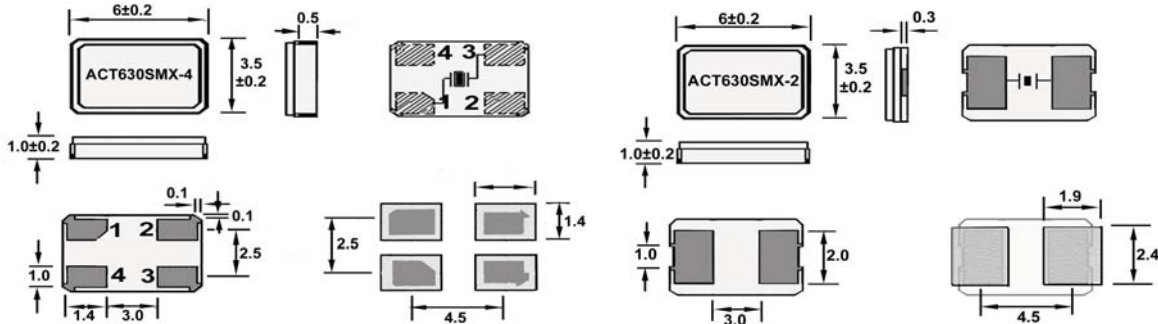
Parameter	Symbol	Specification	Condition
Frequency Range	fo	10.0 ~ 150.0MHz ( Standard Range)	Please specify
Frequency Tolerance (@25°C)	$\Delta f/fo$	$\pm 5, \pm 10, \pm 15, \pm 20, \pm 30$ & $\pm 50$ ppm(Std )	Please specify
Stability over temp range	Tc	$\pm 5$ ppm ~ 50ppm (See table 2)	Please specify
Temp Operating Range	Topr	0~+50°C ~ -40~+85°C ( See table 2)	Please specify
Temp Storage Range	Tstg	-40 ~+85°C	
Equivalent Series Resistance	ESR	See table 1	
Load Capacitance	CL	10pF ~ 50pF & Series	(16,20 & 30pF Std ) Please specify
Shunt Capacitance	C0	5pF max	
Drive Level	DL	100 $\mu$ W typical (500 $\mu$ W max)	(Custom available - Please enquire)
Drive Level Dependency	DLD	ESR min to max <1.3 FL min to max <1.3	0.01, 0.1, 1, 10, 100, 500 $\mu$ W steps
Insulation Resistance	IR	500M $\Omega$ min	@100V DC
Aging	Fa	$\pm 3$ ppm p/year	(First year max @ 25°C)

Table 1

Freq. Range (MHz)	ESR ( $\Omega$ ) max	Mode / Cut
10.000 ~ 11.999	60	Fundamental / AT
12.000 ~ 14.999	50	Fundamental / AT
15.000 ~ 49.090	40	Fundamental / AT
45.000 ~ 79.999	90	3 <sup>RD</sup> Overtone / AT
80.000 ~ 90.000	90	3 <sup>RD</sup> Overtone / AT
90.001 ~ 150.000	150	3 <sup>RD</sup> Overtone / AT

Pad Surface Material: Gold (Au)

### Dimensions (mm)



#### 4 Pad Device

#### Connections

- #1. Crystal
- #2. Grounded to lid
- #3. Crystal
- #4. Grounded to lid

#### 2 Pad Device

#### Connections

- #1. Crystal
- #2. Crystal

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

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature & Load Capacitance

In line with our ongoing policy of product evolution and improvement, the above specification may 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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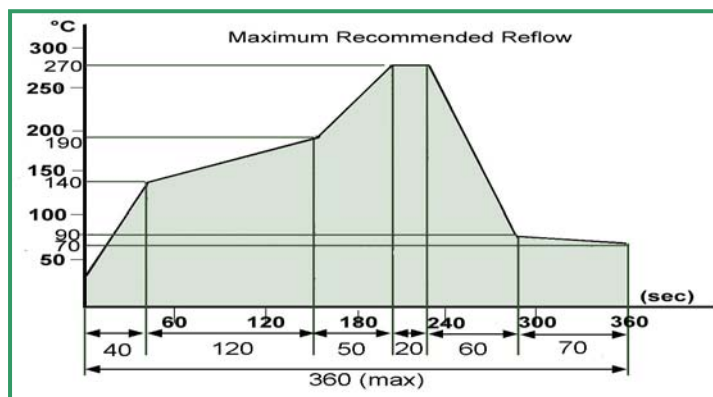
Date 24/01/07

## ACT630SMX-2/4

Table 2

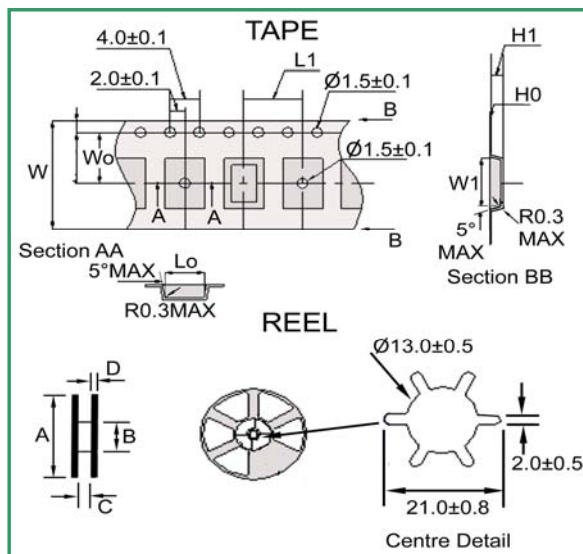
Stability Temp	+/- 5ppm	+/- 10ppm	+/- 20ppm	+/- 30ppm	+/- 50ppm	
0~+50°C	+	+	+	+	+	Available stabilities
-10~+60°C	+	+	+	+	+	
-20~+70°C		+	+	+	+	Standard stabilities
-30~+80°C		+	+	+	+	
-40~+85°C		+	+	+	+	

### Standard Re-flow Profile



### Tape & Reel Specification (mm)

( 1K pcs each reel )



Tolerance Dimension	TAPE							REEL			
	W	Wo	W1	Lo	L1	Ho	H1	A	B	C	D
	±0.3	±0.05	±0.1	±0.1	±0.1	±0.05	±0.1	±1	±1	±0.5	±0.2
	12.0	5.5	6.5	4.0	8.0	0.3	1.4	178	80	13.5	2.0

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