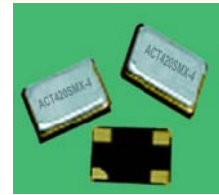


ACT420SMX-4

Compatible with Eu Directive
 2002/EC - RoHS

The ACT420SMX-4 is a low cost, 4 pad, high quality, low aging 4x2.5mm SMD Crystal in a ceramic base / metal lid package, seam welded for good long term reliability. The 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: Bluetooth, WLAN, PDA, Pagers, Card readers, Cellular, PC Accessories, Notebook, Audio-visual, PCMCIA, MP3, Consumer & Communications



Specification

Parameter	Symbol	Specification	Condition
Frequency Range	fo	12.000 ~ 50.000MHz	Please specify
Frequency Tolerance (@25°C)	$\Delta f/fo$	$\pm 5, \pm 10, \pm 15, \pm 20, \pm 30$ & ± 50 ppm(Std)	Please specify
Stability over temp range	Tc	± 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	8pF ~ 50pF & Series	(16,20 & 30pF Std. Please specify)
Shunt Capacitance	C0	5pF max	
Drive Level	DL	100 μ W typical (500 μ 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, 1000 μ s
Insulation Resistance	IR	500M Ω min	100V DC
Aging	Fa	± 3 ppm p/year *	1 year max @ 25°C)

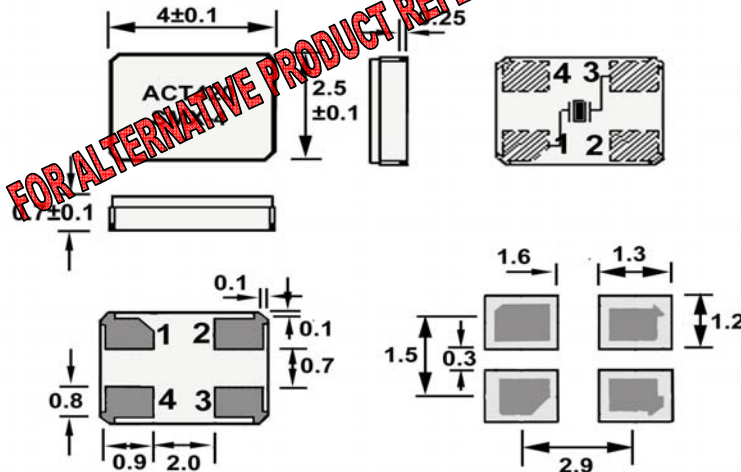
* ± 1.00 ppm aging p/year part is available, to order, as a "semi-custom" part. Please enquire

Table 1

Freq. Range (MHz)	ESR (Ω) max	Package Cut
12.000 ~ 14.999	80	Fundamental
15.000 ~ 50.000	50	Fundamental

Pad Surface Material: Gold (Au)

Dimensions (mm)



Connections

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

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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Table 2

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

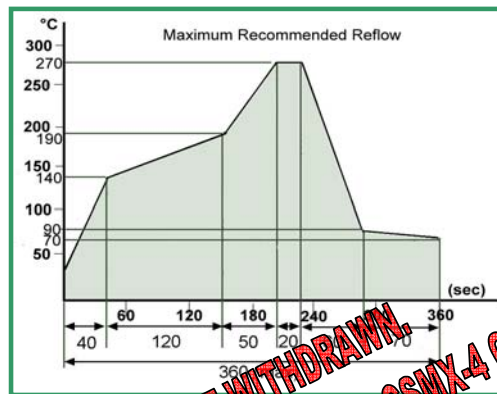
+

Available stabilities

+

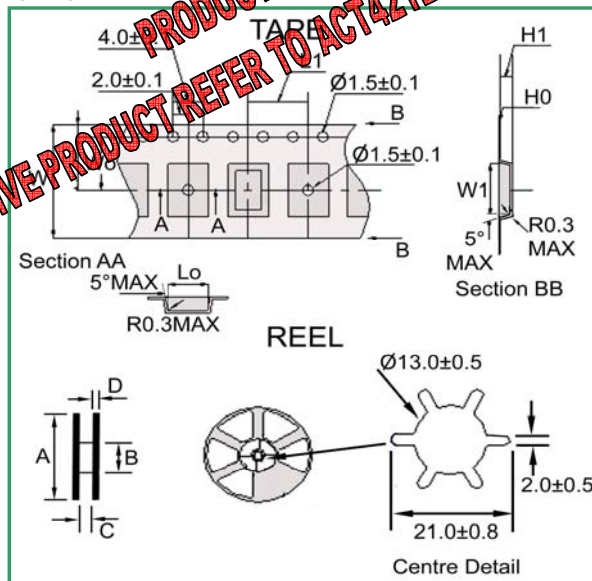
Standard stabilities

Standard Re-flow Profile



Tape & Reel Specification (mm) (1K pcs each reel)

PRODUCT WITHDRAWN.
 FOR ALTERNATIVE PRODUCT REFER TO ACT421LCSMX-4 OR ACT421SMX-4 SERIES.



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	4.4	2.9	4.0	0.3	1.0	178	80	13.5	2.0

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