

QUARTZ CRYSTALS

HC-49/4SMX

SMT

INTRODUCTION

Very competitively priced surface mount quartz crystals housed in the superior resistance weld HC-49/4SMX metal case which offers a low profile, 4mm height body. Designed for applications where board height is critical.

FEATURES

- Cost effective
- Surface mount
- Low profile (4mm height)
- Superior resistance weld HC-49/4SMX metal case

TYPICAL APPLICATIONS

- General
- Industrial
- Microcontrollers

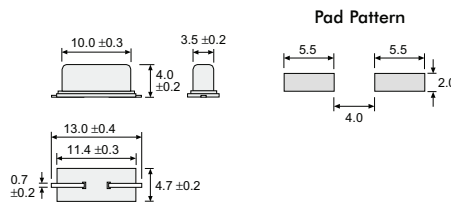
PACKAGING

Supplied taped & reeled.

SPECIFICATION

Nominal Frequency Range	3.5 to 32.0MHz	24.0 to 70.0MHz
Vibration Mode	Fundamental (AT)	3rd Overtone (AT)
Frequency Tolerance (at 25°C)	±20, ±30 or ±50ppm (Options : ±10, ±15ppm)	
Temperature Stability	±30 or ±50ppm	
Operating Temperature Range	-10°C to +60°C or -20°C to +70°C	
Storage Temperature Range	-20°C to +70°C or -30°C to +80°C	
Load Capacitance	8pF to 33pF, or series	
Shunt Capacitance	5pF max. (≤18MHz) or 7pF max. (>18MHz)	
Equivalent Series Resistance	(see ESR tables below)	
Drive Level	200µW max. (≤5MHz) or 100µW max. (>5MHz)	
Aging	±5ppm per year	
Insulation Resistance	500MΩ min. at 100Vdc	

DIMENSIONS (mm)



3.2 and 2.8 ±0.2mm Height available to special order

ESR

AT-cut Fundamental	
Frequency MHz	ESR Ω max.
3.5-3.99	150
4.0-4.99	120
5.0-5.99	100
6.0-7.99	80
8.0-9.99	70
10.0-13.99	50
14.0-32.0	40

AT-cut 3rd Overtone	
Frequency MHz	ESR Ω max.
24.0-70.0	80

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PART NUMBERS

The following table lists a selection of the most popular fundamental frequencies that forms our profiled range. Other frequencies and specification characteristics are available to special order subject to the limits defined within the Specification section on the previous page.

Frequency MHz	Tolerance ppm @ 25°C	Temperature Stability ppm over range -10 to +60°C	Load Cap	anglia Order Code
3.579545	±30	±50	16pF	XT407
3.6864	±30	±50	30pF	XT408
4.0	±30	±50	30pF	XT409
4.096	±30	±50	30pF	XT441
4.9152	±30	±50	30pF	XT429
6.0	±30	±50	30pF	XT411
6.144	±30	±50	30pF	XT412
7.3728	±30	±50	30pF	XT414
8.0	±30	±50	30pF	XT415
9.8304	±20	±50	30pF	XT447
10.0	±30	±50	30pF	XT417
11.0	±30	±50	30pF	XT436
11.0592	±30	±50	30pF	XT418
12.0	±30	±50	30pF	XT419
12.288	±30	±50	30pF	XT420
13.5	±20	±30	18pF	XT472
14.318	±30	±50	20pF	XT446
14.7456	±30	±50	30pF	XT421
16.0	±30	±50	30pF	XT422
17.734475	±50	±50	30pF	XT423
18.432	±50	±30	30pF	XT424
18.75	±20	±30	18pF	XT405*
19.44	±20	±30	18pF	XT468*
19.53125	±20	±30	18pF	XT406*
19.6608	±30	±50	30pF	XT459
20.0	±30	±50	30pF	XT425
20.141601	±20	±30	18pF	XT452*
22.1184	±30	±50	30pF	XT426
23.4375	±20	±30	18pF	XT471*
24.576	±30	±30	30pF	XT430
25.0	±20	±30	18pF	XT460*
26.5625	±20	±30	18pF	XT410*
27.0	±20	±50	18pF	XT445

* -20°C to +70°C Operating Temperature Range