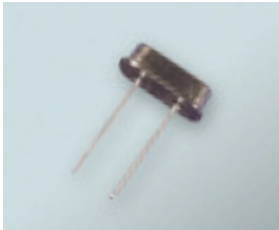


# QUARTZ CRYSTALS

HC-49/4H

**LEADED**



**INTRODUCTION**

Very competitively priced low profile AT-cut quartz crystals housed in the superior resistance weld HC-49/4H metal case compatible with HC-18/U and HC-49/U footprint but offering a 4mm height body. Designed for applications where board height and space is critical.

**FEATURES**

- Cost effective
- Low profile (4mm height)
- Superior resistance weld HC-49/4H metal case
- Separate insulating pad available

**TYPICAL APPLICATIONS**

- General
- Industrial
- Microcontrollers

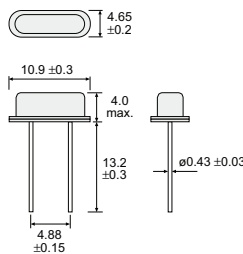
**PACKAGING**

Supplied loose as standard. Taped product available to special order.

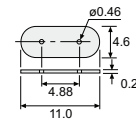
**SPECIFICATION**

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 or ±30ppm	
Temperature Stability	±30 or ±50ppm	
Operating Temperature Range	-10°C to +60°C (Option: -20°C to +70°C)	
Storage Temperature Range	-20°C to +70°C (Option: -30°C to +80°C)	
Load Capacitance	8pF to 32pF, 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)**



**Insulating Pad**  
A high quality pad  
manufactured from PTFE



**anglia**  
Order Code  
607100W

3.2 and 2.5 ±0.2mm Height available to special order

**ESR**

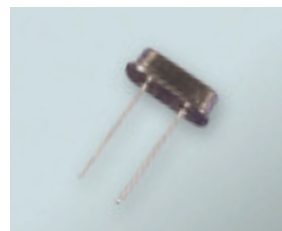
AT-cut Fundamental	
Frequency MHz	ESR Ω max.
3.5-3.99	150
4.0-4.99	120
5.0-5.99	100
6.0-7.99	80
8.0-9.99	70
10.0-13.99	50
14.0-32.0	40

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

# QUARTZ CRYSTALS

HC-49/4H

LEADED



**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	607407
3.6864	±30	±50	30pF	607408
4.0	±30	±50	30pF	607409
4.096	±30	±50	30pF	607441
4.9152	±30	±50	30pF	607429
5.0	±30	±50	30pF	607413
6.0	±30	±50	30pF	607411
6.144	±30	±50	30pF	607412
7.3728	±30	±50	30pF	607414
8.0	±30	±50	30pF	607415
9.216	±30	±50	30pF	607416
9.8304	±30	±50	30pF	607446
10.0	±30	±50	30pF	607417
10.24	±30	±50	30pF	607442
11.0	±30	±50	30pF	607436
11.0592	±30	±50	30pF	607418
11.2896	±20	±30	30pF	607449
12.0	±30	±50	30pF	607419
12.288	±30	±30	30pF	607420A
16.0	±30	±50	30pF	607422
17.734475	±20	±30	30pF	607423
18.432	±20	±30	30pF	607424
19.6608	±20	±30	30pF	607459
20.0	±30	±50	30pF	607425
25.0	±30	±50	30pF	607460

See Pages 28-29  
for SMT alternatives