

# **MOBICON**

## **Electronic Components**

### **PRODUCT SPECIFICATION**

### **MEC QUARTZ CRYSTAL**

### **FREQUENCY COMPONENTS**

**HC49S Series QUARTZ CRYSTAL SPECIFICATION**

<b>MOBICON HOLDINGS LTD.</b>		
<b>Prepared By</b>	<b>Sign.</b>	<b>Approved By</b>
Leo Wong		C.H. Wong

**[www.mobicon.com](http://www.mobicon.com)**

# MIEC

## SPECIFICATION OF CRYSTAL UNIT

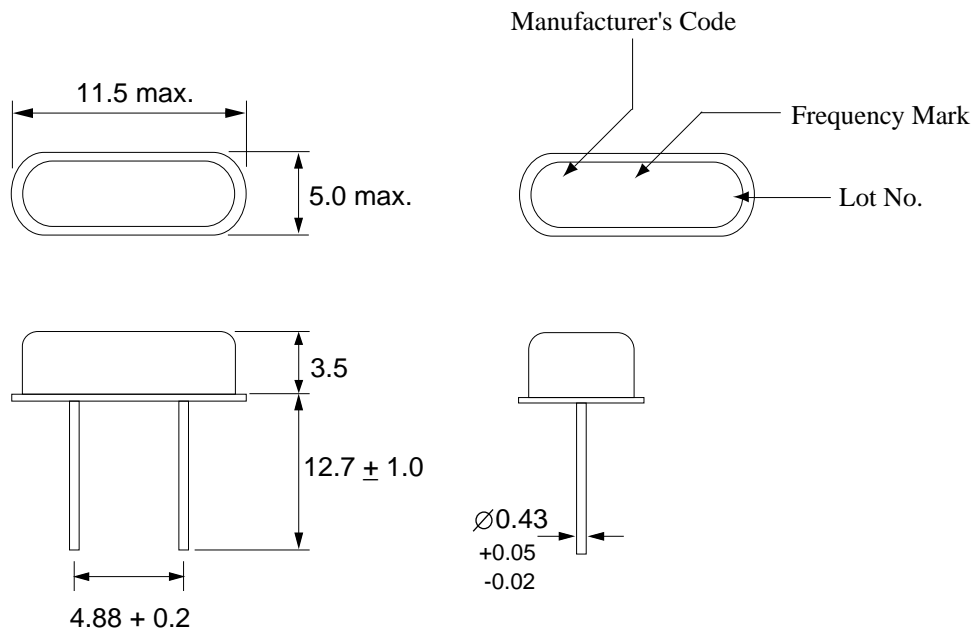
**PART NO. :**

**HC49S-4M1630F**

### ELECTRICAL CHARACTERISTICS

1. Nominal Frequency	4.000 MHz
2. Holder Type	HC49S
3. Frequency Tolerance	$\pm 30$ ppm
4. Equivalent Resistance	120 Ohm max.
5. Insulation Resistance	500M Ohm @100V <sub>DC</sub>
6. Temperature Tolerance	+/- 50ppm at -20 ~ +85°C
7. Operating Temperature Range	-10 ~ +60°C
8. Storage Temperature Range	-20 ~ +85°C
9. Loading Capacitance	16 pF
10. Drive Level	100uW max.
11. Aging	$\pm 5$ ppm/ year max.
12. Oscillation Mode	Fundamental

### DIMENSIONS (mm)



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DOC. No: HC49S-4M1630F

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## SPECIFICATION OF CRYSTAL UNIT

No.	Item	Condition of Test
1	Drop Test	Dropping from 75cm height, 3 times on hard wooden board.
2	Vibration Test	30 minutes in each direction 10 to 55 Hz, amplitude 0.7 ~ 0.9mm Variation: Frequency drift < $\pm 20$ ppm
3	Solderability	The dipping surface of the lead shall be at least 95% Covered with a Continuous new solder coating. Condition of test: Temperature of solder bath: $230^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Dipping time: 5 sec.
4	Leakage	No bubbles coming up from interior of the holder. Insulation resistance: More than 500M Ohm Condition of test: Temperature of hot water: $90^{\circ}\text{C} \sim 95^{\circ}\text{C}$ Test time: 3 min.

### REVIEW OF SPECIFICATIONS

- 1) When something get doubtful with this specifications, we shall jointly work to get an agreement.
- 2) This specification limits the quality of the components as a single unit. Please insure the component is thoroughly evaluated in your application circuit.
- 3) Please do not use this component in any application that deviates from its intended use as noted within the specification. It may cause any mishaps.
- 4) Please return one of this specification after your signature of acceptance. In case of no return within 3 months from submission date. This specification should be treated as accepted.



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