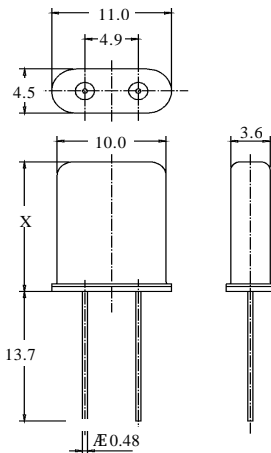




# HC-49/U



## Quartz Crystal Units AT-Cut, 2.4 - 300 MHz



### Options Package Height:

	X	<b>Adder to PartNr.</b>	
HC-49/U:	13.4		
HC-49/11 mm:	11.5	XS 27xx/28xx/29xx/30xx/31xxB	
HC-52/9 mm:	9.70	XS 27xx/28xx/29xx/30xx/31xxC	
HC-49/9 mm: starting with 4.5MHz			

DIN 45110:	M4
IEC 122-3:	DP
NFC-93-601:	n <sup>o</sup> 5
MIL-H-10056:	HC-49/U
Welded metal enclosure (inert atmosphere) with wire leads	

All dimensions in mm (max)

HC-49/U			Temperature Stability in the Temperature Range						Nom. Temp. ± 5°C <sup>1)</sup>
			-55°C...+105°C		-20°C...+70°C				
Overtone	Frequency [MHz]	Type	± 50ppm	± 25ppm	± 20ppm	± 10ppm	± 7ppm	± 5ppm	± 2ppm
1.OT	2.4...5.2	XS 27xxA	01	02	03	04	06	-----	05
	5.2...10	XS 27xx	01	02	03	04	06	07	05
	10...30	XS 28xx	01	02	03	04	06	07	05
3.OT	20...100	XS 28xx	11	12	13	14	16	17	15
5.OT	50...160	XS 29xx	01	02	03	04	06	07	05
7.OT	110...210	XS 30xx	01	02	03	04	06	07	05
9.OT	150...300	XS 31xx	01	02	03	04	06	07	05

**Calibration tolerance: ± 10 ppm** <sup>1)</sup> Nom. Temp. = Nominal temperature for oven application to be given with the order.

### Motional Resistance R1

Overtone	Frequency [MHz]	R1max [Ω]
1. OT	2.4...3	250
1. OT	3...5.2	120
1. OT	5.2...6	80
1. OT	6...8	60
1. OT	8...10	40
1. OT	10...15	30
1. OT	15...35	25
3. OT	20...100	40
5. OT	50...160	60
7. OT	110...210	100
9. OT	150...300	200

Standard resonance for fundamental crystals: load resonance with  $C_L = 30 \pm 0.5\text{pF}$   
 Overtone crystals: series mode  
 Shunt capacitance:  $C_0 = 7\text{pF max}$

Crystal units with different tolerances or additional data upon request.

### Modifications:

- 3rd wire (ground) :
- 3-point mounting for exposure to extreme accelerations (shock and vibr.) :
- 3-point mounting for exposure to extreme accelerations (shock and vibr.) and 3rd wire (ground) :
- SMD-Versions with metal clip :

### Corresponding modified PartNr.

- XS 27xx / 28xx / 29xx / 30xx / 31xx -3
- XS 27xx / 28xx / 29xx / 30xx / 31xx -S
- XS 27xx / 28xx / 29xx / 30xx / 31xx -S-3
- XS 27xx / 28xx / 29xx / 30xx / 31xx -SMD

### KVG Quartz Crystal Technology

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