

# CRYSTAL CLOCK OSCILLATOR



Type : C4 (7.0 × 5.0)

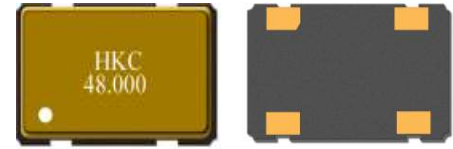
Hong Kong Xtals Ltd. 香港晶体有限公司

## MHZ Crystals Units

Frequency Range: 1.00MHz~100.00MHz

Features:

- High Reliability, Low Cost Crystal
- Tight Stability & Extended Temperature Available
- Lead-free Type
- Automotive Applications, please contact our sales representative



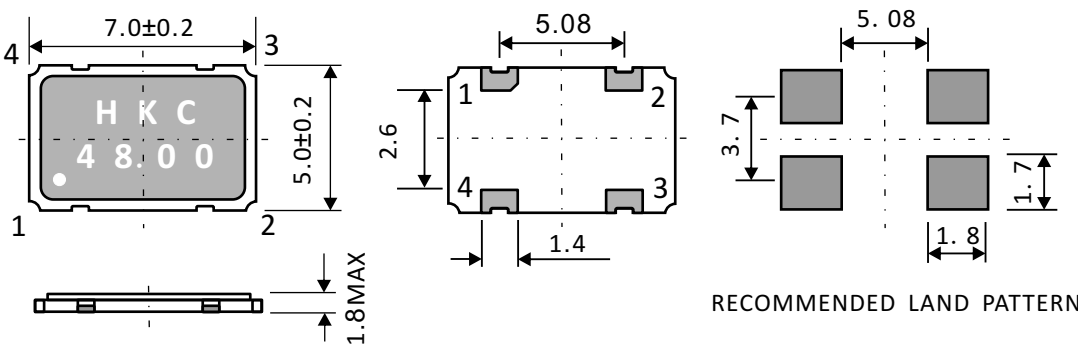
## Standard Specification

Output Frequency	F0	1.00~30.00MHz				30.01~75.00MHz		75.01~100.00MHz	
Frequency Stability	$\Delta f/f$	$\pm 50\text{PPM}, \pm 100\text{PPM}$ at operating temperature				$\pm 50\text{PPM}, \pm 100\text{PPM}$ at operating temperature			
Operating Temperature	$T_{\text{OPR}}$	$-10\sim+70^{\circ}\text{C}$		$-40\sim+85^{\circ}\text{C}$		$-10\sim+70^{\circ}\text{C}$		$-40\sim+85^{\circ}\text{C}$	
Operable Temperature	$T_{\text{STR}}$	$-55\sim+125^{\circ}\text{C}$				$-55\sim+125^{\circ}\text{C}$			
Output Type		CMOS Output		TTL Output		CMOS Output		TTL Output	
		Rating	Remark	Rating	Remark	Rating	Remark	Rating	Remark
Operating Voltage	$V_{\text{DD}}$	3.3 $\pm 10\%$ , 5 $\pm 10\%$		5 $\pm 10\%$		3.3 $\pm 10\%$ , 5 $\pm 10\%$		3.3 $\pm 10\%$ , 5 $\pm 10\%$	
Current Consumption 1	$I_{\text{DD}1}$	12max		12max		25max		15max	
Current Consumption 2	$I_{\text{DD}2}$	4max		4max		15max pin1"L"		15max pin1"L"	
Duty Cycle	$S_{\text{TM}}$	45/55	At 50% $V_{\text{DD}}$	45/55	At 1.4V	45/55	At 50% $V_{\text{DD}}$	45/55	At 50% $V_{\text{DD}}$
"High" Output Voltage	$V_{\text{OH}}$	90% $V_{\text{DD}}$ min		2.4min		90% $V_{\text{DD}}$ min		2.4 min	
"Low" Output Voltage	$V_{\text{OL}}$	10% $V_{\text{DD}}$ max		0.4max		10% $V_{\text{DD}}$ max		0.4 max	
Output Rise Time	$T_{\text{TH}}$	20max at 3V,	10% $\rightarrow$ 90% $V_{\text{DD}}$	7max	0.4V $\rightarrow$ 2.4V	4.0 max	10% $\rightarrow$ 90% $V_{\text{DD}}$	4.0 max	10% $\rightarrow$ 90% $V_{\text{DD}}$
Output Fall Time	$T_{\text{THL}}$	7max at 5V	90% $\rightarrow$ 10% $V_{\text{DD}}$		2.4V $\rightarrow$ 0.4V		90% $\rightarrow$ 10% $V_{\text{DD}}$		90% $\rightarrow$ 10% $V_{\text{DD}}$
Output Load		15pF		10TTL+15pF max		15pF		15pF	
"High" Input Voltage	$V_{\text{IH}}$	90% $V_{\text{DD}}$ min		2.4v		90% $V_{\text{DD}}$ min		90% $V_{\text{DD}}$ min	
"Low" Input Voltage	$V_{\text{IL}}$	10% $V_{\text{DD}}$ max		0.4V		10% $V_{\text{DD}}$ max		10% $V_{\text{DD}}$ max	

Note:

1. Manufacturer reserves the right to change the specification and content of this product for improvement without notification.
2. Custom specification is welcome. Please contact our sales representative for further details.
3. If the crystal is intended for applications which have direct impact on human life and properties, and require a high degree of reliability and safety concerns, customers must provide full information such as but not limit to the application, electrical and reliability specification at the inquiry beginning stage.

## Dimensions (mm) and Solder Pad Layout (mm)



Pin	Connection	
1	N/C or EN/DIS3-stote	
2	GND	
3	Output	
4	Vcc	
INH	"H" or Open	"L" (Standard)
OUTPUT	Enable	High impedance

Please build and send to us your Inquiry Spec Code. You are welcome to add other custom requirement in written and send to us along with the Inquiry Spec. Code. We will reply with a preliminary Product Code.

Clock Oscillator Inquiry Spec Code Builder

C 4 / 48M / 50 / -40+85 / COMS / 3.3 / DAS

Type	Frequency (M)	Freq. Stability	TC Range	Output Type	Operating Voltage	Application
eg		eg	eg	eg	eg	eg
	4M=4.000000MHz	50=+/-50ppm	-10+60	COMS	2.5V	DAS=Dash Board
	20M=20.000000MHz	30=+/-30ppm	-20+70	TTL	3.3V	
			-40+85			