

## Voltage Controlled Clock Oscillator (压控振荡器) - KV508C/KV708C

### Feature 特征

Frequency pulling range from  $\pm 50 \sim \pm 200$ ppm Ultra-low RMS phase jitter 压控范围从 50~200ppm 低相位抖动

### Applications 应用

Frequency electrical calibration, high-frequency network application system, military anti-interference communication 频率电校准, 高频网络应用系统, 军事防干扰通讯

### General Specifications 规格参考

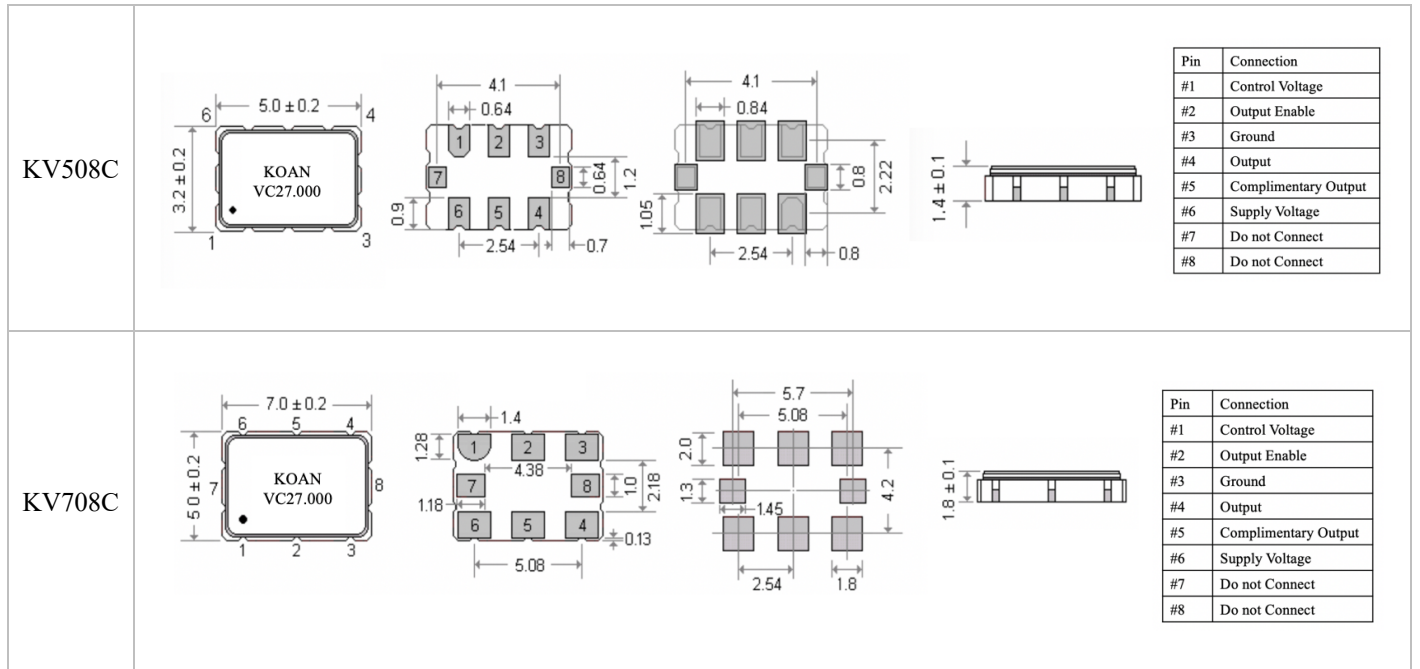


PARAMETER	性能参数	KV508C KV708C		
Frequency Range	频率范围	15.0~700.0MHz		
Supply Voltage	供给电压	+1.8V ( $\pm 10\%$ )	+2.5V ( $\pm 10\%$ )	+3.3V ( $\pm 10\%$ )
Center Control Voltage	中心控制电压	0.9Vdc (0V~1.8V)	1.25Vdc (0.25V~2.25V)	1.65Vdc (0.3V~3.0V)
Output Logic	输出波形	HCSL		
Output Load	输出负载	50 $\Omega$ to Ground		
Frequency Tolerance	调整频差	$\pm 20$ ppm		
Current Consumption	工作电流	80mA typ. 100mA max		
Output Logic High "1"	输出电平 高	0.66V~1.15V		
Output Logic Low "0"	输出电平 低	0.0V~0.15V		
Frequency Pulling Range	压控范围	$\pm 50 \sim \pm 200$ ppm		
Integrated Phase Jitter	抖动	151fs RMS Phase Jitter typ. @1480MHz(12KHz~20MHz)		
Input Impedance	输入电阻	5M $\Omega$ typical		
Rise & Fall Time	上升下降时间	0.8ns max		
Start-up Time	起振时间	5ms typ.; 10ms max		
Output Enable/Disable Time	启动/禁用时间	Enable: 2.5ms max Disable: 10 $\mu$ s max		
Linearity	非线性误差	1% typ.; 10% max		
Duty Cycle	占空比	45~55%		
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.		
Aging Per Year	老化率	$\pm 3$ ppm~ $\pm 5$ ppm/year		
Storage Temperature Range	储存温度范围	-55 $^{\circ}$ C ~ +125 $^{\circ}$ C		

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围						
Temp. Code	Temp.\ppm	$\pm 10$	$\pm 20$	$\pm 30$	$\pm 50$	$\pm 100$
B	-20~70 $^{\circ}$ C	o	o	o	o	o
C	-40~85 $^{\circ}$ C		o	o	o	o
D	-55~85 $^{\circ}$ C			o	o	o
E	-55~105 $^{\circ}$ C				o	o
F	-55~125 $^{\circ}$ C				o	o

NOTE: Please consult for other specifications 若有其它规格需求请告知

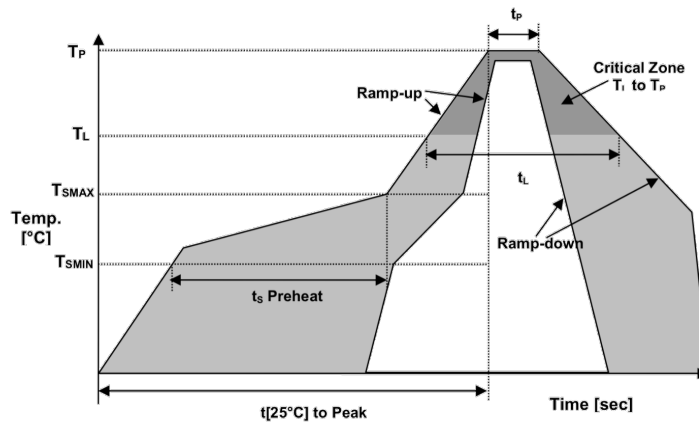
### Outline Dimensions (Unit: mm) 外形尺寸



### Part Number Guide 产品编号

<b>KV</b>	<b>508</b>	<b>C</b>	-	<b>622.080</b>	-	<b>100</b>	-	<b>33</b>	-	<b>C</b>	-	<b>30</b>	-	<b>NS</b>
↓	↓	↓		↓		↓		↓		↓		↓		↓
系列	封装	输出波形	-	标称频率	-	压控范围	-	工作电压	-	工作温度	-	温度频差	-	特殊要求
KV=VCXO 压控振荡器	封装尺寸 70=7050 50=5032 32=3225  8=8 pad	C=HCSL		(In MHz)		50 = ±50ppm 100 = ±100ppm 150 = ±150ppm 200 = ±200ppm		18=1.8V 25=2.5V 33=3.3V		B: -20~+70°C C: -40~+85°C D: -55~+85°C E: -55~+105°C F: -55~+125°C		10 = ±10ppm 20 = ±20ppm 30 = ±30ppm 50 = ±50ppm 100 = ±100ppm		'NS':特殊要求

## Reflow Profile 回流焊



Temperature Min Preheat	最低预热温度	$T_{smin}$	150°C
Temperature Max preheat	最高预热温度	$T_{smax}$	200°C
Time ( $T_{smin}$ to $T_{smax}$ )	时间差	$T_s$	60~120 sec
Temperature	温度	$T_L$	217°C
Peak Temperature	最高温	$T_p$	260 °C
Ramp-up Rate	升温速度	$R_{up}$	3°C/sec max
Ramp-down Rate	降温速度	$R_{down}$	6°C/sec max
Time within 5°C of Peak Temperature	最高温度停留时间	$t_p$	30 sec
Time $t[25°C]$ to peak temperature	25度到最高温度时间	$t[25°C]$ to peak	480 sec
Time	时间	$t_L$	60~150 sec

## Revision 版本

版本 Rev.	修改页 Revise Page	修改内容 Revise Contents	日期 Date	修改人 Reviser
1.0	NA	-	2021.12.25	JH
1.1	1	Specs Update	2024.3.19	JZ