

Voltage Controlled Crystal Oscillator (压控振荡器) - KV508D

Feature 特征

- Frequency pulling range from $\pm 50 \sim \pm 200$ ppm 压控范围 $\pm 50 \sim \pm 200$ ppm
- High frequency ultra-low jitter VCXO, including CMOS, LVPECL, LVDS, CML or HCSL output logics 高频低相位抖动



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

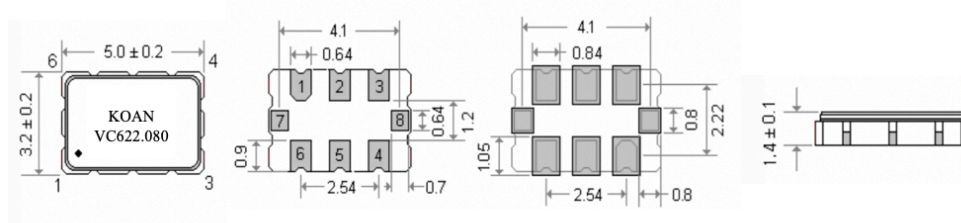
General Specifications 规格参考

PARAMETER	性能参数	KV508D	
Frequency Range	频率范围	15.0MHz~2.1GHz	
Supply Voltage	供给电压	+2.5V ($\pm 10\%$)	+3.3V ($\pm 10\%$)
Center Control Voltage	中心控制电压	1.25Vdc (0.25V~2.25V)	1.65Vdc (0.3V~3.0V)
Output Logic	输出波形	LVDS	
Output Load	输出负载	100 Ω between output and comp. output	
Frequency Tolerance	调整频差	± 20 ppm	
Current Consumption	工作电流	75mA typ. 90mA max.	
Output Logic High "1"	输出电平 高	1.4V typ. 1.6V max	
Output Logic Low "0"	输出电平 低	1.1V typ. 0.9V min	
Frequency Pulling Range	压控范围	$\pm 50 \sim \pm 200$ ppm	
Integrated Phase Jitter	抖动	163fs RMS Phase Jitter typ. @2000MHz (12KHz~20MHz)	
Input Impedance	输入电阻	5M Ω typical	
Rise & Fall Time	上升下降时间	0.4ns max	
Start-up Time	起振时间	5ms typ.; 10ms max	
Linearity	非线性误差	$\pm 1\%$ typ.; $\pm 10\%$ max	
Duty Cycle	占空比	45~55%	
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.	
Aging Per Year	年化率	± 3 ppm~ ± 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	± 10	± 20	± 30	± 50	± 100
B	-20~70 $^{\circ}$ C	o	o	o	o	o
C	-40~85 $^{\circ}$ C		o	o	o	o
D	-20~105 $^{\circ}$ C			o	o	o
E	-40~105 $^{\circ}$ C				o	o
F	-55~105 $^{\circ}$ C					o
G	-20~125 $^{\circ}$ C					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



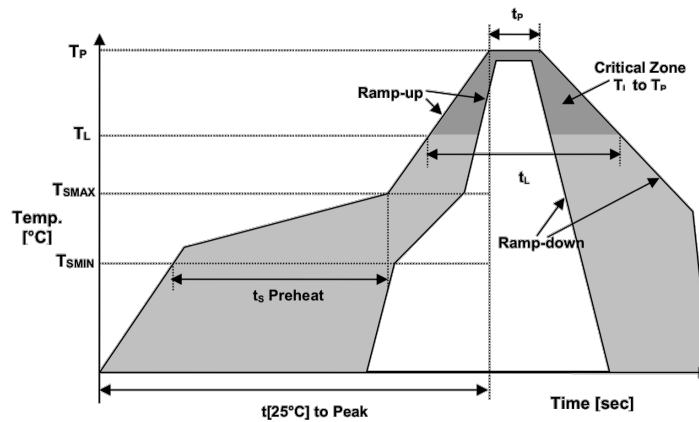
Pin	Connection
#1	Control Voltage
#2	Output Enable
#3	Ground
#4	Output
#5	Complementary Output
#6	Supply Voltage
#7	Do not Connect
#8	Do not Connect

Part Number Guide 产品编号

KV508D - 622.080 - 100 - 33 - C - 30 - NS

型号	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':产品系列 '508':封装尺寸 SMD 5.0x3.2mm 8pad 'D' 输出波形 LVDS	(In MHz)	50 = ±50ppm 100=±100ppm 150=±150ppm 200=±200ppm	25=2.5V 33=3.3V	B: -20~+70°C C: -40~+85°C D: -20~+105°C E: -40~+105°C F: -55~+105°C G: -20~+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