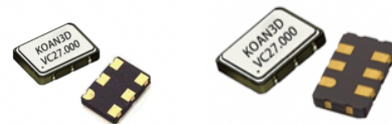


压控振荡器 Voltage Controlled Crystal Oscillator: KV32T KV50T KV70T

Feature 特征

- VCXO allow for precise frequency tuning over typical range $\pm 80 \sim 200$ ppm by adjusting the voltage on the control (Vc) pin 压控晶振可以通过调节控制引脚上的电压进行微调，频率微调范围为 $\pm 80 \sim \pm 200$ ppm
- CMOS output with wide frequency range, up to 245MHz 频率范围广，最高 245MHz
- Low phase jitter 0.6ps RMS 低相位抖动，满足高速数字系统要求
- Ideal for high performance communication, video, and industrial timing systems 适用于高性能通信，视频处理，工业控制等
- Available in compact packages such as 3225, 5032, 7050 可选多种尺寸



General Specifications 规格参考

PARAMETER	性能参数	KV32T KV50T KV70T	
Frequency Range	频率范围	10.0 ~ 245.0MHz	
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	CMOS	
Output Load	输出负载	15pF	
Frequency Tolerance	调整频差	± 20 ppm	
Current Consumption	工作电流	40mA max	
Output Logic High "1"	输出电平 高	0.9Vdd min	
Output Logic Low "0"	输出电平 低	0.1Vdd max	
Frequency Pulling Range	压控范围	$\pm 80 \sim \pm 200$ ppm	
Integrated Phase Jitter	抖动	0.6ps max (12KHz~20MHz)	
Input Impedance	输入电阻	1M Ω typical	
Rise & Fall Time	上升下降时间	10ns max	
Start-up Time	起振时间	5ms typical, 10ms max	
Output Enable/Disable Time	启动/禁用时间	Enable: 200ns max Disable: 50ns max	
Linearity	非线性误差	$\pm 5\%$ typical, $\pm 10\%$ max	
Duty Cycle	占空比	45~55%	
Modulation Bandwidth (-3dB)	调制宽带	10KHz min.	
Aging Per Year	年老化率	± 3 ppm ~ ± 5 ppm/year	
Storage Temperature Range	储存温度范围	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$	

Frequency Stability 温度频差 VS Operating Temperature Range 温度范围

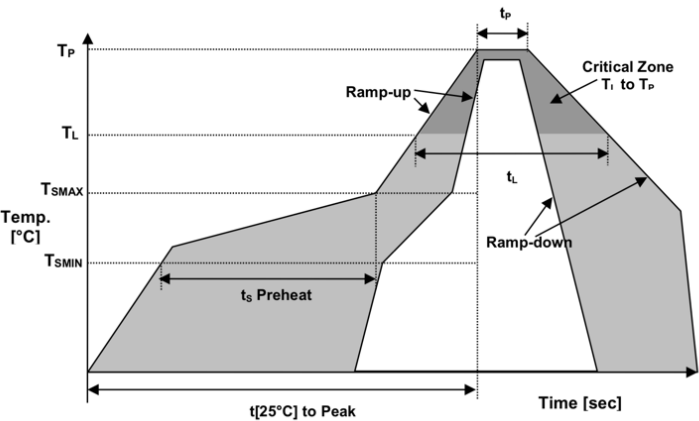
Temp. Code	Temp. ppm	± 20	± 25	± 30	± 50	± 100
B	-20~70°C	o	o	o	o	o
C	-40~85°C		o	o	o	o
E	-40~105°C				o	o
F	-40~125°C					o

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

KV32T	Top view dimensions: 3.2 ± 0.1, 2.5 ± 0.1, 0.8, 0.6, 1.5, 2.4, 0.9, 1.1, 2.5, 1.0 ± 0.1. Bottom view dimensions: 0.8, 0.6, 1.5, 2.4, 0.9, 1.1, 2.5, 1.0 ± 0.1. Side view dimensions: 1.0 ± 0.1.														
KV50T	Top view dimensions: 5.00 ± 0.10, 3.20 ± 0.10, 0.64, 0.45, 2.54, 1.20, 0.90, 1.20, 1.00, 1.30 MAX. Bottom view dimensions: 0.64, 0.45, 2.54, 1.20, 0.90, 1.20, 1.00, 1.30 MAX. Side view dimensions: 1.30 MAX.														
KV70T	Top view dimensions: 7.00 ± 0.10, 5.00 ± 0.10, 1.40, 2.54, 0.60, 1.27, 2.54, 1.80, 2.20, 1.80, 2.20, 2.54, 0.74, 1.80. Bottom view dimensions: 1.40, 2.54, 0.60, 1.27, 2.54, 1.80, 2.20, 1.80, 2.20, 2.54, 0.74, 1.80. Side view dimensions: 1.80, 2.20, 2.54, 0.74, 1.80.														
	<table border="1"> <thead> <tr> <th>Pin</th><th>Connection</th></tr> </thead> <tbody> <tr> <td>#1</td><td>Control Voltage</td></tr> <tr> <td>#2</td><td>Tri-State</td></tr> <tr> <td>#3</td><td>Ground</td></tr> <tr> <td>#4</td><td>CMOS: Output; PECL or LVDS: Differential</td></tr> <tr> <td>#5</td><td>CMOS: N.C.; PECL or LVDS: Complementary</td></tr> <tr> <td>#6</td><td>Supply Voltage</td></tr> </tbody> </table>	Pin	Connection	#1	Control Voltage	#2	Tri-State	#3	Ground	#4	CMOS: Output; PECL or LVDS: Differential	#5	CMOS: N.C.; PECL or LVDS: Complementary	#6	Supply Voltage
Pin	Connection														
#1	Control Voltage														
#2	Tri-State														
#3	Ground														
#4	CMOS: Output; PECL or LVDS: Differential														
#5	CMOS: N.C.; PECL or LVDS: Complementary														
#6	Supply Voltage														

[illegible]

■ 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 $t[25^\circ\text{C}]$ to peak temperature	25度到最高温度时间	$t[25^\circ\text{C}]$ to peak	480 sec
Time	时间	t_L	60~150 sec