

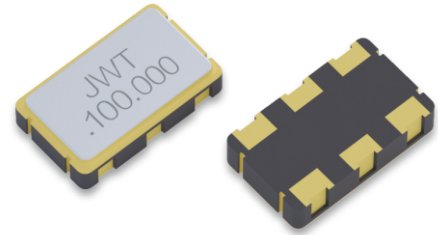
# SPXO 5032(LVDS)

## 差分振荡器 (OSC)

### 关键特性 Key Features

超宽工作温度范围:  $-40^{\circ}\text{C} \sim 150^{\circ}\text{C}$   
 高精度:  $\pm 10\text{ppm}$   
 低相位抖动:  $42\text{fs} @ 156.25\text{MHz}$   
 输出: 单端、差分

Ultra wide operating temperature range:  $-40^{\circ}\text{C} \sim 150^{\circ}\text{C}$   
 High accuracy:  $\pm 10\text{ppm}$   
 Low phase jitter:  $42\text{fs} @ 156.25\text{MHz}$   
 Output: single ended, differential  
 Ultra small ultra thin



### 应用 Application

◆ 汽车电子 ◆ 智能终端 ◆ 智能家电 ◆ 工业专用设备消费类电子 ◆ 通讯设备 ◆ 可穿戴设备 ◆ 计算平台等  
 ◇ Auto Electronics ◇ IT ◇ Smart Appliances ◇ Industrial Special Device ◇ Consumer Electronics  
 ◇ Communication Device ◇ Wearable Device ◇ Computing Platform, etc

### (OSC) 差分输出 Single Ended Output

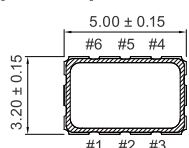
产品系列	尺寸 (mm)	频率范围 (MHz)	频率精度@25°C (ppm)	工作温度 (°C)	输出波形	推荐频点 (MHz)
OSC (差分输出)	3.2*2.5*0.9	50 ~ 220	$\pm 50$	$-40 \sim 85, -40 \sim 105$	LVPECL LVDS HCSL	100 ~ 175
	5.0*3.2*1.2	100 ~ 170	$\pm 25/50/100$	$-40 \sim 85$	LVPECL LVDS HCSL	
	7.0*5.0*1.7	62.5 ~ 220	$\pm 25/50/100$	$-40 \sim 85$	LVPECL LVDS HCSL	

### (OSC) 标准规格 Electronic Specification

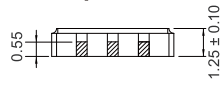
序号 NO.	参数 Parameter	符号 Symbol	LVDS				单位 Company	备注 Remarks
			3.3V		2.5V			
			Min	Max	Min	Max		
1	供电电压 Supply voltage	Vdd	2.97	3.63	2.25	2.75	V	
2	标称频率 Nominal frequency	F0	100	175	100	175	MHz	
3	电流 Current	Icc	-	30	-	35	mA	
4	老化率 Aging rate	F_age	$\pm 3$				ppm	First year
5	存储温度范围 Storage temperature range	T_stg	-55	125	-55	125	$^{\circ}\text{C}$	
6	输出波形 Output waveform	-	LVDS				-	
7	占空比 Duty cycle	TH/T	45	55	45	55	%	
8	启动时间 Start time	Tosc	-	5	-	5	ms	
9	上升时间 Rise time	Tr	-	0.3	-	0.3	ns	
10	下降时间 Descent time	Tf	-	0.3	-	0.3	ns	
11	"1" 电平 "1" level	VoH	-	1.6	-	1.6	V	
12	"0" 电平 "0" level	VoL	0.9	-	0.9	-	V	
13	差分输出电压 Differential output voltage	-	0.24	0.45	0.24	0.45	V	
14	支持电流 Supporting current	-	-	30	-	30	$\mu\text{A}$	
15	输出负载 Output load	-	100				$\Omega$	
16	三态 Tristate	Output Enable	0.7Vdd	-	0.7Vdd	-	V	
		Output Disable	-	0.3vdd	-	0.3vdd	V	
17	相声噪位 Crosstalk noise level @Vdd=3.3V 156.25MHz	-	Typ.: -150		Typ.: -150		dBc/Hz	offset 10kHz
		-	Typ.: -150		Typ.: -150		dBc/Hz	offset 100kHz
		-	Typ.: -160		Typ.: -160		dBc/Hz	offset 1MHz
18	相位抖动 Phase jitter	-	-	0.1	-	0.1	pSec	Integrated 12KHz to 20MHz @3.3V

### 外型尺寸 Outline Dimensions (Unit:mm)

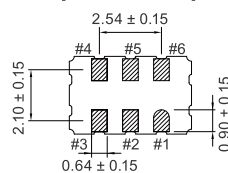
[ TOP VIEW ]



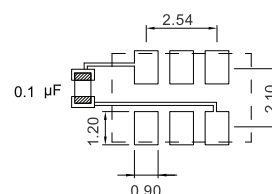
[ SIDE VIEW ]



[ BOTTOM VIEW ]



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 $\mu\text{F}$  as close as possible between Vdd and GND pads.



Pin#	Function
1	Tri-State/NC
2	NC / Tri-State
3	GND
4	Output
5	Comp.Output
6	VDD