

# Crystal Oscillator

## YSO131LR Low Voltage



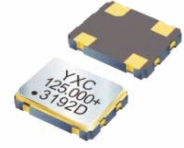
### Applications

- IOT
- Industrial Control
- Consumer Electronics

### Features

- Frequency Range: 4MHz ~ 50MHz
- Low-power Applications & Energy Consumption-Sensitive Applications

- Package Size: 2.0\*1.6, 2.5\*2.0, 3.2\*2.5, 5.0\*3.2, 7.0\*5.0mm



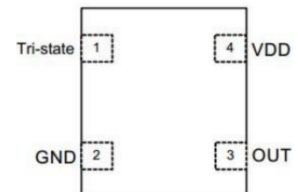
## Specifications (规格参数)

Item	Symbol	Specifications
Frequency Range (额定频率范围)	$f_0$	4MHz ~ 50MHz, or specify
Supply Voltage (电源电压)	VDD	1.2V
Output Type (输出方式)	-	CMOS
Frequency Tolerance (频率偏差) (at 25°C)	$f_{tol}$	$\pm 10\text{ppm}$ , $\pm 20\text{ppm}$ , or specify
Output Load (输出负载)	$L_{cmos}$	15pF
Operating Temperature (工作温度)	$T_{use}$	-40~+85°C, or specify
Storage Temperature (储存温度)	$T_{stg}$	-55~+125°C
Frequency Versus Temperature Characteristics (频率-温度特性)	$f_{tem}$	$\pm 20\text{ppm}$ , $\pm 30\text{ppm}$ , $\pm 50\text{ppm}$ , or specify
Output Voltage (输出电压)	$V_{oh}$	90%VDD Min
	$V_{ol}$	10%VDD Max
Duty Cycle (占空比)	SYM	45~55%
Start-up Time (启动时间)	$t_{str}$	3ms Max
Rise Time/Fall Time (上升沿/下降沿)	$t_r/t_f$	8ns Max
Phase Jitter [12 kHz ~ 20 MHz] (相位抖动)	$t_{pj}$	1ps Max
Frequency Aging (老化) (at 25°C)	$f_{age}$	$\pm 3\text{ppm/year}$ Max
Tri-State	Enable (High Voltage or Floating)	70% of VDD Min
	Disable (Low Voltage or GND)	30% of VDD Max

## Pin Dimension (脚位尺寸)

Pin	#1	#2	#3	#4
FUNCTION	Tri-state	GND	OUTPUT	VDD

### Pin Assignments



\*The picture on the right is only for PIN function description.

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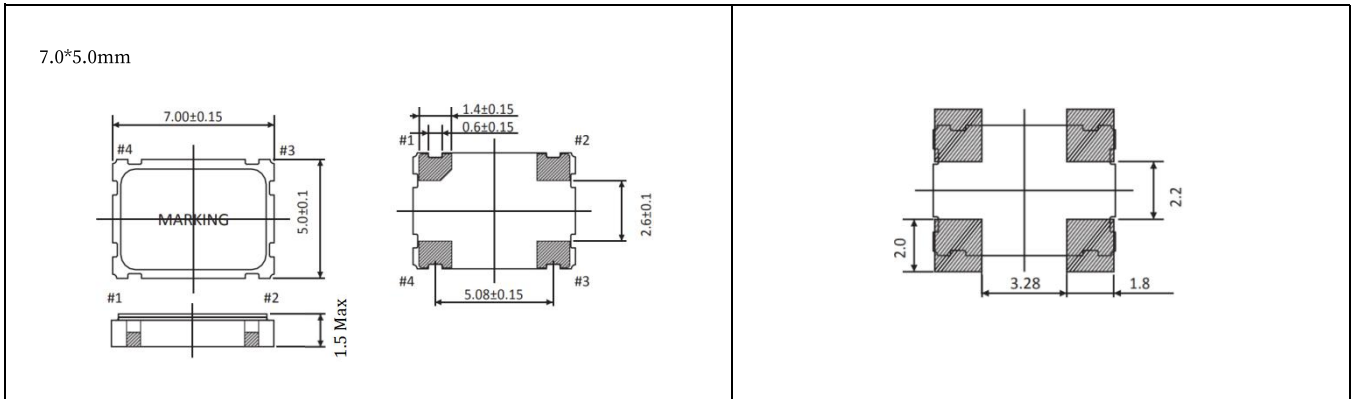


### Dimensions and Recommended Land Pattern (外观尺寸及推荐焊盘)

Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>2.0*1.6mm</p>	
<p>2.5*2.0mm</p>	
<p>3.2*2.5mm</p>	
<p>5.0*3.2mm</p>	

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### Notes:

1. A capacitor value  $\sim 0.01\mu\text{f} \sim 0.1\mu\text{f}$  or higher between Vdd and GND is required.