

Programmable Crystal Oscillator YSO210PR

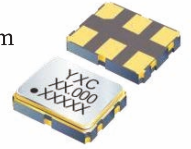


Applications

- 10 GB Ethernet, SONET, SATA, SAS, Fibre Channel

Features

- Wide Frequency Range: 10 ~ 1500MHz
- Output LVPECL or LVDS
- Package Size: 3.2*2.5, 5.0*3.2, 7.0*5.0mm
- Quartz Crystal Programmable Differential Oscillator



Specifications (规格参数)

Item/Type	LVPECL	LVDS	Remarks	
Output Frequency Range 额定频率范围	10MHZ ~ 1500MHZ			
Supply Voltage 电源电压	2.5V, 3.3V			
Total Stability 频率偏差	±25ppm, ±50ppm, or specify		Inclusive of Initial tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature	
Operating Temperature Range 工作温度	-40~+85°C, or specify			
Storage Temperature Range 储存温度	-55~+150°C			
Current Consumption 消耗电流	80mA Max	50mA Max	OE=VDD, LVPECL=(50)Ω or LVDS=(100)Ω	
Disable Current 禁用电流	16mA Typ.		OE=GND	
Output Voltage (LVPECL) 输出电压 (LVPECL)	VOH=VDD-1.03 Min	--	DC characteristics	
	VOL=VDD-1.6 Max	--		
Output Voltage (LVDS) 输出电压 (LVDS)	--	VOD=350mV	VOD1, VOD2	DC characteristics
	--	dVOD=50mV Max	dVOD= VOD1-VOD2	
	--	VOS= 1.25V	VOS1, VOS2	
	--	dVOS=50mV Max	dVOS= VOD1-VOD2	
Output Load Condition 输出负载	L_PECL=50Ω	--	Terminated to VDD-2.0V	
	--	L_LVDS=100Ω	Connected between OUT to OUT	
Input Voltage 输入电压	VIH=70% VDD Min, VIL=30%VDD Max		OE terminal	
Rise Time/Fall Time 上升沿/下降沿	1nS Max		LVPECL: Between 20% and 80% of (VOH-VOL), LVDS: Between 20% and 80% Differential Output peak to peak voltage	

Programmable Crystal Oscillator YSO210PR



Item/Type	LVPECL	LVDS	Remarks
Duty Cycle 占空比	45~55%		
Start-up time 启动时间	10mS		Time at Minimum Supply Voltage to be 0s
RMS Jitter [12 kHz ~ 20 MHz] 相位抖动	1.0ps Typ.		200MHZ ~ 800MHZ
	2.0ps Typ.		801MHZ ~ 1500MHZ
Aging 老化率	±3ppm		25°C First year, VDD=2.5V, 3.3V

Pin Dimension (脚位尺寸)

Pin	#1	#2	#3	#4	#5	#6
FUNCTION	OE	NC	GND	OUT+	OUT-	VDD

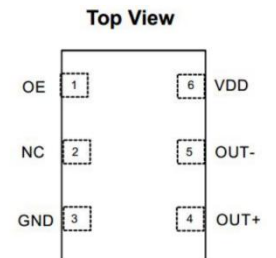


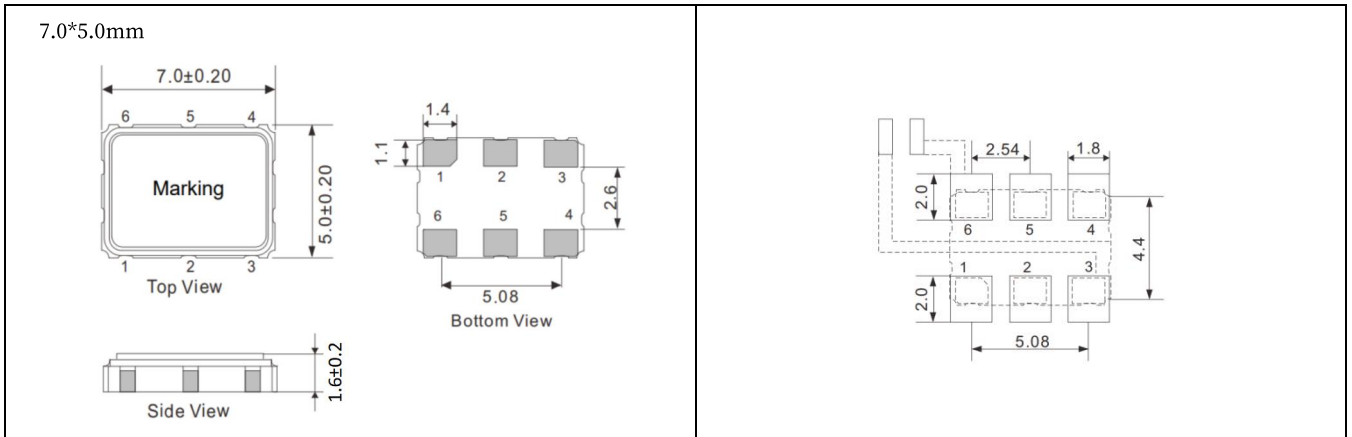
Figure 1. Pin Assignments

Notes: To maintain stable operation provide a 0.01uF to 0.1uF by-pass capacitor at a location as near as possible to the power source terminal of the crystal product (between VDD-GND).

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

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

Programmable Crystal Oscillator YSO210PR



Test Circuit (测试电路)

