

# Programmable Crystal Oscillator YSO210PR

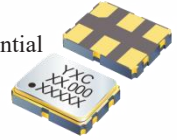


## Applications

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

## Features

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



## Specifications (规格参数)

Item/Type	LVPECL	LVDS	Remarks	
Output Frequency Range	10MHZ~1500MHZ			
Supply Voltage	2.5Vdc ± 10% 3.3Vdc ± 10%			
Total Stability	±30ppm, ±50ppm or specify			
Operating Temperature Range	-40~+85°C, or specify			
Storage Temperature Range	-55~+150°C			
Input Resistance	1Mohms Typ			
Current Consumption	80mA Max	50mA Max	OE=Vcc, LVPECL=(50)Ω or LVDS=(100)Ω	
Disable Current	16mA Typ		OE=GND	
Output Voltage (LVPECL)	VOH=Vcc-1.03 Min	--	DC characteristics	
	VOL=Vcc-1.6 Max	--		
Output Voltage (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	L_PECL=50Ω	--	Terminated to Vcc-2.0V	
	--	L_LVDS=100Ω	Connected between OUT to OUT	
Input Voltage	VIH=70% VccMin, VIL=30%Vcc Max		OE terminal	
Output Symmetry	45~55%			
Rise Time/Fall Time	1nS Max		LVPECL: Between 20% and 80% of (VOH-VOL), LVDS:Between 20% and 80% Differential Output peak to peak voltage	
Start-up time	10mS		Time at minimum supply voltage to be 0 s	
Phase Jitter(12KHZ~20MHZ)	1.0ps Typ.		200MHZ~800MHZ	
	2.0ps Typ.		801MHZ~1500MHZ	
Aging	±3ppm		25°CFirst year, Vcc=2.5V,3.3V	

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## Pin Dimension (脚位尺寸)

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

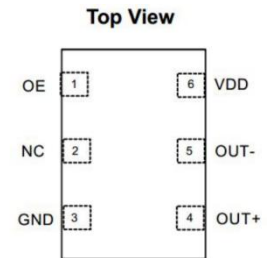


Figure 1. Pin Assignments

**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 Vcc-GND).

## Dimensions and Recommended land pattern (外观尺寸及推荐焊盘)

Package Size – Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
<p>3.2*2.5mm</p>	
<p>5.0*3.2mm</p>	
<p>7.0*5.0mm</p>	

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## Test Circuit (测试电路)

