

Programmable Differential Oscillator YSO251PJ TCXO - Low Jitter



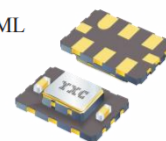
Applications

- Networking
- Satellite Navigation
- Communications

Features

- RMS Jitter (12KHz ~ 20MHz) :
250 fsec typ. (at 156.250MHz, 3.3V)

- Multiple Output: PECL, LVDS, HCSL, CML
- Package Size: 3.2*2.5mm, 5.0*3.2mm



Specifications (规格参数)

Output Type	PECL	LVDS	HCSL	CML
Frequency Range 额定频率范围	15MHz ~ 2100MHz	15MHz ~ 2100MHz	15MHz ~ 700MHz	15MHz ~ 1500MHz
Supply Voltage VDD 电源电压	2.5V, 3.3V	1.8, 2.5V, 3.3V	1.8, 2.5V, 3.3V	1.8, 2.5V, 3.3V
Operating Temperature Range 工作温度	-40 ~ +85°C, or specify			
Storage Temperature Range 储存温度	-55 ~ +150°C			
Output Load 输出负载	50Ω into Vcc - 2V or Thevenin equiralent	100 Ω between output and complimentary output	50 Ω to GND	50 Ω to VDD
Rise Time / Fall Time (Tr / Tf: 10% ↔ 90% waveform) 上升沿/下降沿	0.4 nsec (max.)			
Duty Cycle 占空比	45~55%			
Start-up Time 启动时间	5.0msec (typ.)			
RMS Jitter [12 kHz ~ 20 MHz] 相位抖动	15 MHz ~ 50 MHz : 500 fsec (typ.) ; 51MHz ~ 1,200 MHz : 250 fsec (typ.)			
Current Consumption (max.) (VDD = + 3.3V) 消耗电流	99 mA (typ.)	74 mA (typ.)	79 mA (typ.)	69 mA (typ.)
Initial Calibration Tolerance 初始校准公差	±2.0ppm (max.) at +25°C±2°C (at the shipment)			
Frequency Stability 频率稳定度	Temperature (ref to +25°C)	± 2.5 ppm over -40 °C to +85°C (typical)		
		± 1.5 ppm over -40°C to +85°C (available)		
	Aging at Ta = +25°C	± 1.0ppm max, pear year at 25°C		
	Voltage Change	± 0.2 ppm (max.) , for a ± 5% input voltage change.		
	Load Change	± 0.2 ppm (max.) , for a ± 10% load condition change.		
	Reflow	± 1.0 ppm (max.) , 1 reflow and measured 24 hours afterwards.		
Output Enable / Disable Function	70% of VDD (min.) to enable output.			
	30% of VDD (max.) to disable output.			

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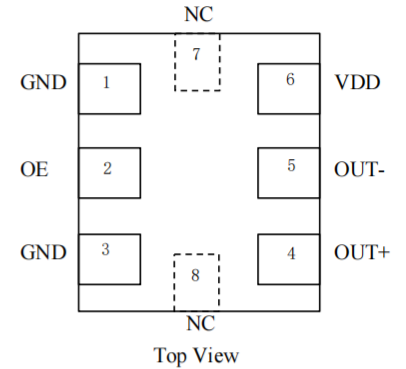
Pin Description (脚位说明)

Pin	#1	#2	#3	#4
FUNCTION	Ground	Output Enable	Ground	Output
Pin	#5	#6	#7	#8
FUNCTION	Complementary	Supply Voltage	No Connection	No Connection

Notes:

1. Please keep the NC pin floating during use. Do not connect it to any network (power, ground, or signal).
2. The provided pinout is for reference purposes only. The definitive material specification document must be obtained by contacting a sales representative.

Pin Assignments



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

Dimensions (Unit: mm)	Recommended Land Pattern (Unit: mm)
3.2*2.5mm Top View Bottom View Side View	Recommended soldering Pattern
5.0*3.2mm Top View Bottom View Side View	Recommended soldering Pattern

Notes:

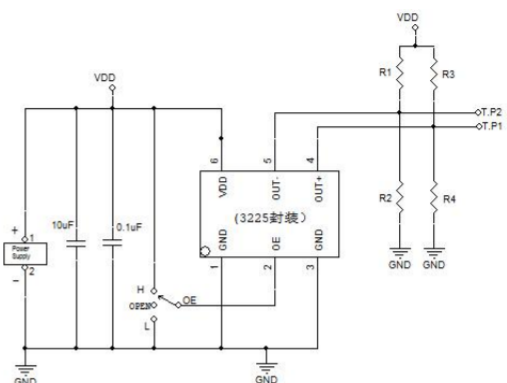
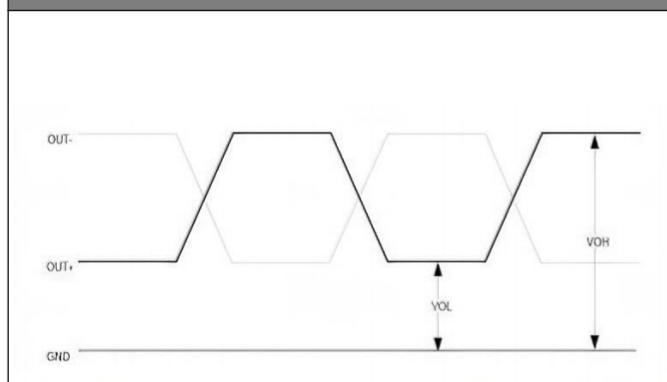
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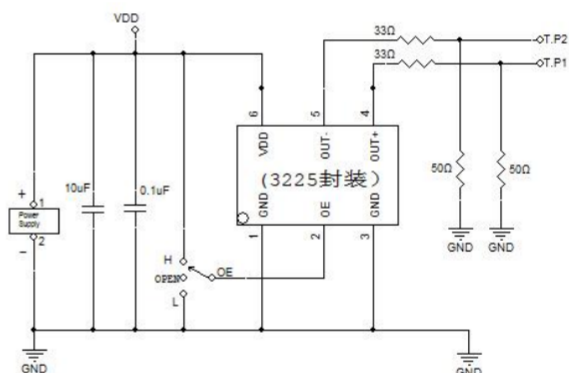
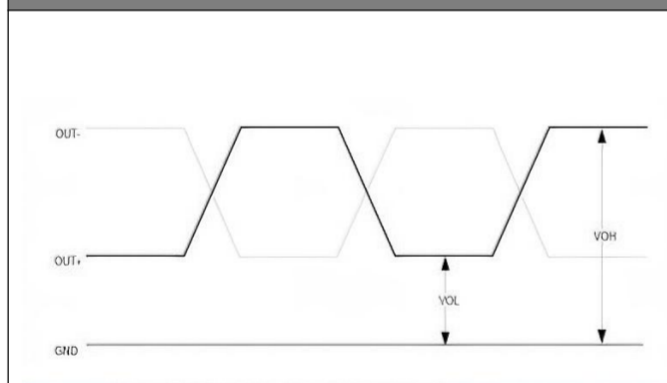
Output Waveform and Test Circuit (输出波形和测试电路)

PECL

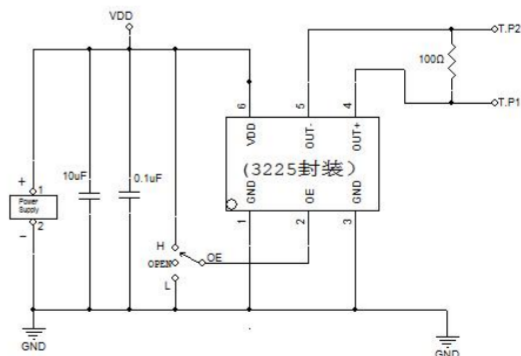
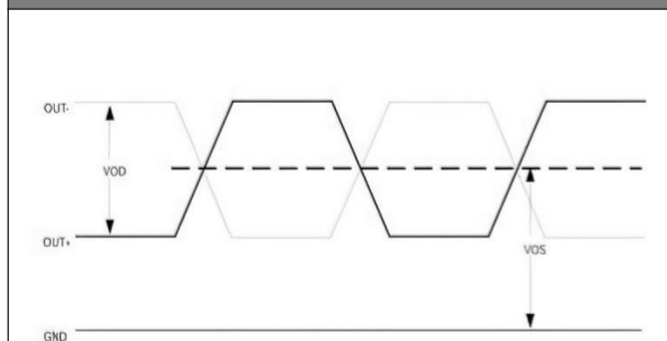


VDD=3.3V; R1=R3=127Ω; R2=R4=62.5Ω
VDD=2.5V; R1=R3=250Ω; R2=R4=62.5Ω

HCSL



LVDS



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