

Programmable Voltage Control Temperature Compensated YSV531PT VC-TCXO



Applications

- Networking
- Industrial

Features

- An Integrated Phase Jitter Performance of 1.0 pS RMS Min
- Low Jitter Design with New Developed IC
- Package Size: 3.2*2.5mm, 7.0*5.0mm



Specifications (规格参数)

Output Type	CMOS	
Frequency Range 额定频率范围	10MHz ~ 250MHz	
Supply Voltage VDD 电源电压	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	15 pF	
Rise Time / Fall Time (Tr / Tf : 10% ↔ 90% waveform) 上升沿/下降沿	1.5 nsec (typ.) 3.0 nsec (max.)	
Duty Cycle 占空比	45~55%	
Start-up Time 启动时间	5.0 msec (max.)	
RMS Jitter [12 kHz ~ 20 MHz] 相位抖动	1.5 psec (typ.)	
Current Consumption (max.) (VDD = + 2.5V) 消耗电流	50MHz : 34mA	
	125MHz : 38mA	
	200MHz : 40mA	
Current Consumption (max.) (VDD = + 3.3V) 消耗电流	50MHz : 36mA	
	125MHz : 40mA	
	200MHz : 44mA	
Current with Output Disabled 禁用电流	18mA (typ.)	
Initial Calibration Tolerance 初始校准公差	±2.0 ppm (max.) at +25°C±2°C (at the shipment)	
Frequency Stability 频率偏差	Temperature (ref to +25°C)	± 2.5 ppm over -30°C to +85°C (default) ± 1.0 ppm over -40°C to +85°C (available)
	Aging at Ta = +25°C	± 2.0 ppm max, first 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
Control Voltage Function on Pin 1		
Control Voltage Center and Range 控制电压	+1.5V ± 1.0V for both VDD = 2.5V and 3.3V	
Frequency Pulling Range 牵引频率	± 8 ppm (min.)	
Linearity 线性	± 1 % (typ.) ± 10% (max.)	
Transfer Function 传递函数	Positive Transfer	
Absolute Voltage 绝对电压	4.0 V (max.)	
Input Impedance 输入阻抗	770 KΩ (typ.)	

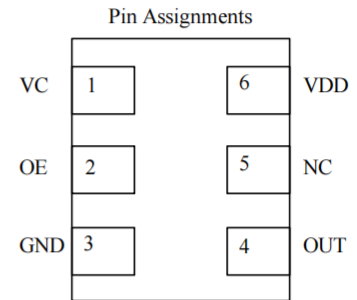
Programmable Voltage Control Temperature Compensated YSV531PT VC-TCXO



Output Enable Function on Pin 2	
Voltage VOH (Min.) / VOL (Max.) 输入电压	70% of VDD (min.) to enable output (Open connection prohibit.)
	30% of VDD (max.) to disable output

Pin Description (脚位说明)

Pin	#1	#2	#3
FUNCTION	Voltage Control	Out Enable	Ground
Pin	#4	#5	#6
FUNCTION	Output	No Connection	Supply Voltage



Top View

Notes:

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

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>Top View</p> <p>Bottom View</p> <p>Side View</p>	<p>Recommended soldering Pattern</p>
<p>7.0*5.0mm</p> <p>Top View</p> <p>Bottom View</p> <p>Side View</p>	<p>Recommended soldering Pattern</p>

Notes:

The dimensions are for reference purposes only. The definitive material specification document must be obtained by contacting a sales representative.

Programmable Voltage Control Temperature Compensated YSV531PT VC-TCXO



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

