

# Programmable Temperature Compensated YSV531PT VC-TCXO

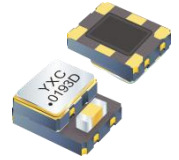


## Applications

- 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

Output Type	CMOS	
Frequency Range	10MHz to 250MHz	
Supply Voltage VDD	2.5V, 3.3V	
Operating Temperature Range	-40~+85°C, or specify	
Storage Temperature Range	-55~+150°C	
Output Load	15 pF	
Rise Time/Fall Time (Tr / Tf : 10% ↔ 90% waveform)	1.5 nsec. ( typ. ) , 3.0 nsec. ( max. )	
Duty Cycle	45~55%	
Start-up Time	5.0 msec. ( max. )	
RMS Jitter [ 12 kHz ~ 20 MHz ]	1.5 psec ( typ. )	
Current Consumption ( max. ) ( VDD = + 2.5V )	50 MHz : 34 mA	
	125 MHz : 38 mA	
	200 MHz : 40 mA	
Current Consumption ( max. ) ( VDD = + 3.3V )	50 MHz : 36 mA	
	125 MHz : 40 mA	
	200 MHz : 44 mA	
Current with Output Disabled	18 mA ( Typ. )	
Rise Time / Fall Time	1.5 nsec. ( typ. ) , 3.0 nsec. ( max. ) Tr / Tf : 10% ↔ 90% waveform	
Initial Calibration Tolerance	±2.0 ppm ( max. ) at +25°C±2°C ( at the shipment )	
Frequency Stability	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.	

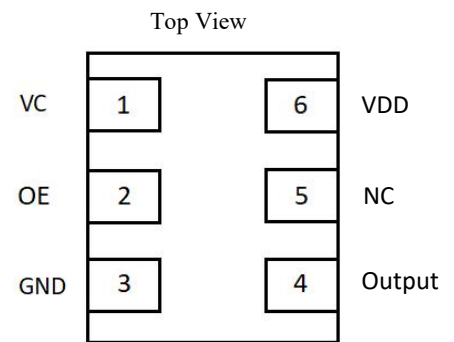
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Control Voltage Function on Pad 1	
Control Voltage Center and Range	+1.5V $\pm$ 1.0V for both VDD = 2.5V and 3.3V
Frequency Pulling Range	$\pm$ 8 ppm ( min.)
Linearity	$\pm$ 1 % ( typ.) $\pm$ 10% ( max.)
Transfer Function	Positive Transfer
Absolute Voltage	4.0 V ( max.)
Input Impedance	770 K $\Omega$ ( typ.)
Output Enable Function on pad 2	
OE Control on Pad 2	70% of VDD (min.) to enable output. (Open connection prohibit.)
	30% of VDD (max.) to disable output.
Output Enable Time / Disable Time	200 nsec. ( max.) / 50 nsec. ( max.)

## Pin Dimension

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

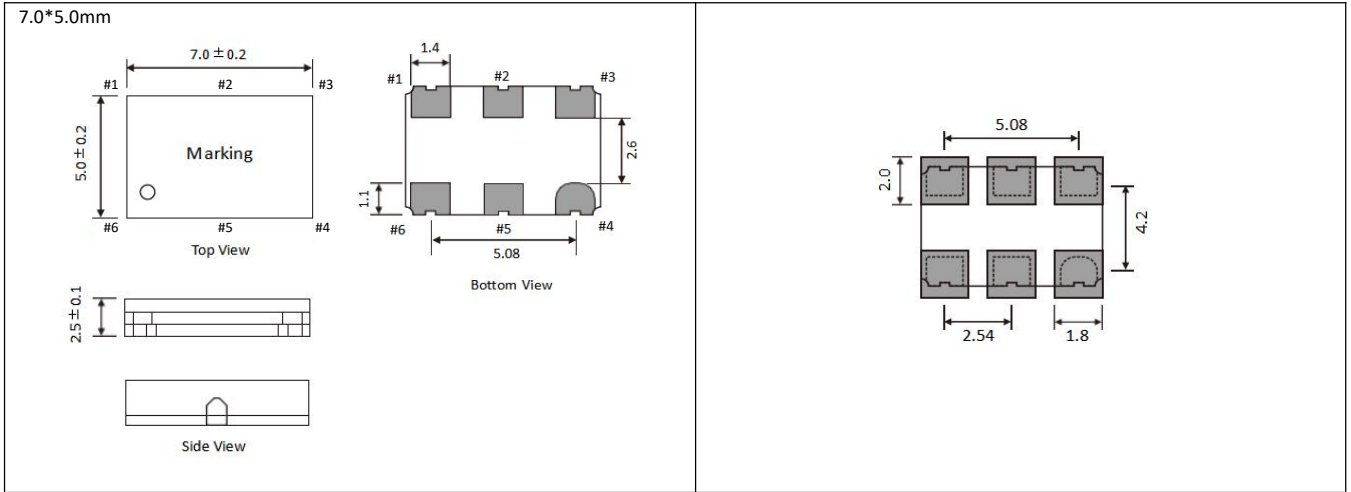


Pin Assignments

## Dimensions and Recommended land pattern

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

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## Test Circuit

