

# Programmable Crystal Oscillator

## YSV311PJ VCXO

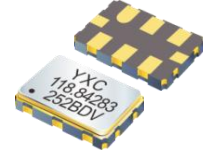


### Applications

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

### Features

- Freq. Range: 15MHz-250MHz.      - Package Size: 5.0\*3.2, 7.0\*5.0mm.  
- Operating Voltage : 1.8V, 2.5V or 3.3V.      - Ultra-low RMS phase jitter.



## Specifications

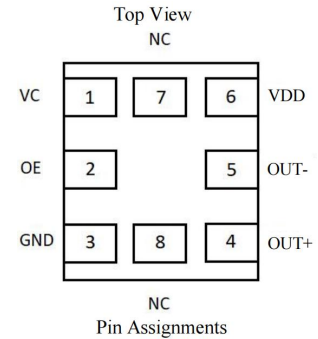
Item / Type	SMD VCXO	CMOS		
Output Frequency Range		15MHz~250MHz		
Supply Voltage		1.8V, 2.5V, 3.3V		
Total Stability		±25ppm, ±50ppm, ±100ppm or specify		
Absolute Pull Range		±100ppm (min), ± 200ppm ( available )		
Operating Temperature Range		-40~+85°C, or specify		
Storage Temperature Range		-55~+150°C		
Input Impedance		5Mohms (min)		
Current Consumption (VDD = + 3.3 V )		50MHz : 70mA ( typ.), 250MHz : 80mA ( typ.)		
Output Load		15pF(max)		
Duty Cycle		45~55%		
Rise Time / Fall Time ( 20% to 80% Waveform )		5.0nsec ( max.)		
Start-up Time		5msec. ( typ.) ; 10msec. ( max.)		
Aging		± 3 ppm ( max.) for first year ; ± 2 ppm ( max.) per year thereafter		
RMS Jitter [ 12 kHz ~ 20 MHz ]		156.250 MHz : 159fsec ( typ.) ; 491.520 MHz : 155fsec ( typ.) ; 644.530 MHz : 151fsec ( typ.) ; 2,000 MHz : 163fsec( typ.)		
Control Voltage Function on Pad 1				
Vcontrol Center	+ 0.9 V for VDD = + 1.8 V	+ 1.25 V for VDD = + 2.5 V	+ 1.65 V for VDD = + 3.3 V	
Vcontrol Range	+ 0.0V ~ +1.8V	+ 0.25V ~ +2.25V	+ 0.3V ~ +3.0V	
Linearity	± 1%( typ.) ; ±10% ( max.)			
Transfer Function	Positive Transfer			
Input Impedance	5MΩ ( min.)			
Bandwidth	10KHz ( typ.) Measured at -3 dB			
Output Enable Function on Pad 2				
Output Enable / Disable Function	80% of VDD ( min.) to enable output.			
	20% of VDD ( max.) to disable output.			
Output Enable Time / Disable Time	2.5msec ( max.) / 10usec ( max.)			

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## Pin Dimension



Pin	#1	#2	#3	#4
FUNCTION	VC	OE	GND	OUT+
Pin	#5	#6	#7	#8
FUNCTION	OUT-	VDD	NC	NC



## Dimensions and Recommended land pattern

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

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Test Circuit

