

2.5/3.3V LVDS XO

WX503



5.0 x 3.2mm Ceramic SMD

Product Features

- Very low phase jitter 1.0ps RMS
- Thicker crystal for improved reliability
- Industrial Temperature Range
- Pb-free & RoHS compliant

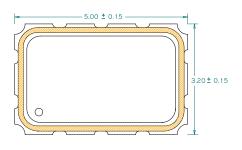
Product Description

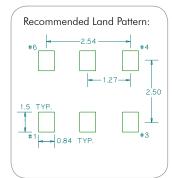
The WX503 XO series is a high performance LVDS crystal oscillator family with very low jitter performance. It supports various options including wider frequency range, 2.5/3.3 voltage, various stabilities, and different package sizes. It is designed to meet the clock source specifications for communication systems, and other high performance equipment.

Applications

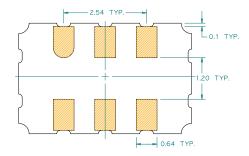
- Networking systems
- Servers and storage systems
- Profession video equipments
- Test and measurement
- FPGA/ASIC clock generation

Package:







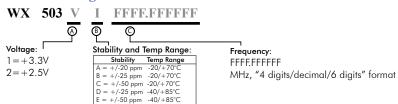


Pin Functions:

Pin	Function					
1	OE Function					
2	N/C					
3	Ground					
4	Q					
5	Q					
6	V _{CC}					

*Extended high frequency power decoupling is recommended (see test circuit for minimum recommendation). To ensure optimal performance, do not route RF traces beneath the package.

Part Ordering Information:



SaRonix-eCera™ is a Pericom® Semiconductor company • US: +1-408-435-0800 TW: +886-3-4518888 • www.pericom.cc





Ultra Low Jitter LVDS Crystal Oscillator 5.0 x 3.2mm

Electrical Performance

Parameter	Min.	Тур.	Max.	Units	Notes	
Output Frequency	50		212.5	MHz		
Supply Voltage	3.135	3.3	3.465	3.7	Cditi	
	2.375	2.5	2.625	V	See ordering options	
Supply Current, Output Enabled			90	mA		
Supply Current, Output Disabled			70	mA		
Frequency Stability			±50	ppm	See ordering options	
Operating Temperature Range	-40		+85	°C	See ordering options	
Differential Output Voltage. VOD	0.247	0.350	0.454	V		
Output Common Mode Voltage, VOS	1.125	1.25	1.375	V		
Output Load	1	00Ω connec	cted between o	utputs	Output requires termination	
Duty Cycle	45		55	%	Measured 50% V _{CC}	
Rise and Fall Time			500	ps	Measured 20/80% of waveform	
Jitter, Phase RMS (1-σ)			1	ps	12kHz to 20 MHz frequency band	
Jitter, pk-pk			30	ps	100,000 random periods	

Notes:1

- Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (1 year at 25°C average effective ambient temperature), shock and vibration.
- 2. For specifications othere than those listed, please contact sales.

Output Enable / Disable Function

Parameter	Min.	Тур.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	0.7 V _{CC}			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V _{CC}	V	Output is Hi-Z
Internal Pullup Resistance		100		kΩ	
Output Disable Delay			80	ns	
Output Enable Delay			80	ns	
Setup Time			10	ms	

Absolute Maximum Ratings

Parameter	Min.	Тур.	Max.	Units	Notes
Storage Temperature	-55		+125	°C	

For the latest product information visit: http://www.pericom.com/products/timing/oscillators/

For test circuit go to: http://www.pericom.com/pdf/sre/tc_lvds.pdf

For soldering reflow profile and reliability test ratings go to: $\underline{\text{http://www.pericom.com/pdf/sre/reflow.pdf}}$

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_5032_xo.pdf



WX503