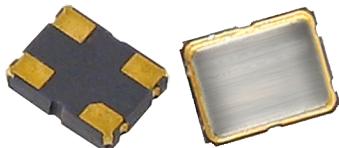


## 0.9V~1.5V CMOS XO

**LX321**



3.2 x 2.5mm Ceramic SMD

### Product Features

- Industrial temperature range
- Low phase jitter: < 1ps RMS max.
- Supports frequency range: 1.25~50MHz
- Supports voltage range: 0.9~1.5V
- Low power consumption
- Pb-free & RoHS compliant

### Product Description

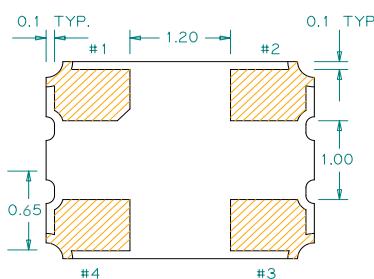
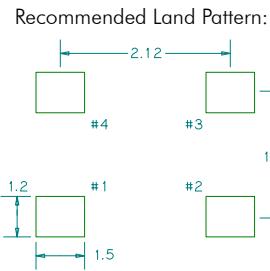
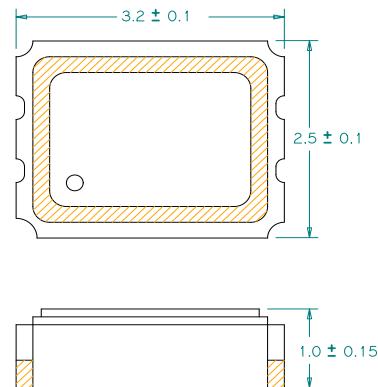
The LX321 XO series is a high performance CMOS crystal oscillator family with very low jitter performance.

It supports 0.9V/1.0V/1.2V/1.5V voltages and consumes very low operating current. It is designed to meet the clock source specifications for communication systems, industrial applications and other high performance equipment.

### Applications

- Networking and communication systems
- Industrial and outdoor systems
- Storage and server systems
- Hand-held devices
- Professional video equipments
- Test and measurement equipments

### Package: (Scale: none; dimensions are in mm)

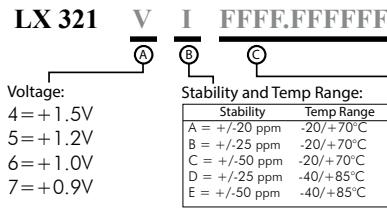


### Pin Functions:

Pin	Function
1	OE
2	Ground
3	Output
4	V <sub>DD</sub>

\*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:



## Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency	1.25		50	MHz	See ordering options
	1.425	1.5	1.575		
	1.14	1.2	1.26		
	0.95	1.0	1.05		
	0.855	0.9	0.945		
Supply Current, Output Enabled			4	mA	
Supply Current, Output Disabled only			100	uA	
Frequency Stability			±50	ppm	See ordering options
Operating Temperature Range	-40		+85	°C	See ordering options
Output Logic 0, V <sub>OL</sub>			0.2 V <sub>DD</sub>	V	
Output Logic 1, V <sub>OH</sub>	0.8 V <sub>DD</sub>			V	
Output Load			15	pF	
Duty Cycle	45		55	%	Measured 50% V <sub>DD</sub>
Rise and Fall Time			4	ns	Measured 20/80% of waveform
Jitter, Accumulated, RMS (1- $\sigma$ )			6	ps	20.000 adjacent periods
Jitter, Phase, RMS	< 40MHz		1	ps	12kHz to 5 MHz frequency band
	>=40MHz		1		12kHz to 20 MHz frequency band
Jitter, pk-pk			50	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 other than those listed, please contact sales.

## Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	0.7 V <sub>DD</sub>			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V <sub>DD</sub>	V	Output is Hi-Z
Output Disable Delay			50	us	
Output Enable Delay			2	ms	
Start up Time			10	ms	

## Absolute Maximum Ratings

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

For the latest product information visit: <http://www.pericom.com/products/crystals-and-crystal-oscillators/cxo/?part=LX321>

For test circuit go to: [http://www.pericom.com/pdf/sre/tc\\_cmos2.pdf](http://www.pericom.com/pdf/sre/tc_cmos2.pdf)

For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

For tape and reel information go to: [http://www.pericom.com/pdf/sre/tr\\_3225\\_xo.pdf](http://www.pericom.com/pdf/sre/tr_3225_xo.pdf)