

1.8V Clipped Sinewave Low Jitter XO



2.5 x 2.0mm Ceramic SMD

Product Features

- Very low Phase Jitter-2ps RMS (10kHz-5MHz)
- Low output current - 2mA Max
- Low power standby mode - 10µA Max
- Low Output Harmonic level
- RoHS Compliant

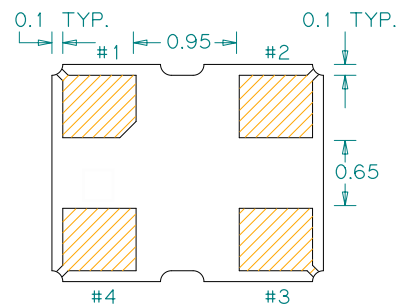
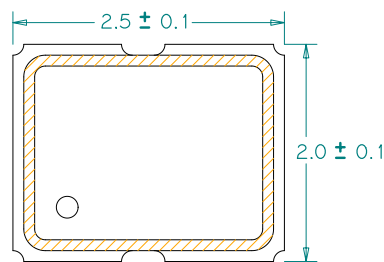
Product Description

This is an enhanced 1.8V crystal clock clipped sine oscillator with superb phase jitter, low output harmonics and operating current for WiFi /Bluetooth wireless module and smart phone applications

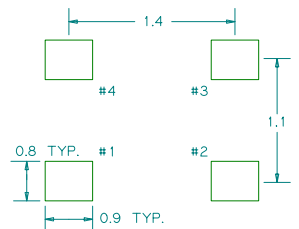
Applications

- WiFi/Bluetooth wireless module
- Smart phone

Package:



Recommended Land Pattern:



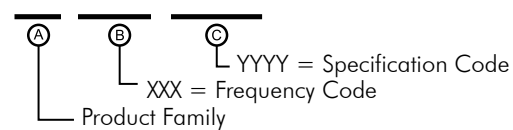
Pin Functions:

Pin	Function
1	OE Function
2	Ground
3	Clock Output
4	V _{DD}

*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:

UJ XXX YYYY



Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency	1		50	MHz	
Supply Voltage	1.62	1.8	1.98	V	
Supply Current, Output Enabled			2	mA	
Supply Current, Standby Mode			10	A	
Frequency Stability			±20 to ±50	ppm	See Note 1 below
Operating Temperature Range	-20		+70	°C	Commercial (standard)
	-40		+85		Industrial (standard)
Output Voltage	0.4		0.9	Vp-p	
Output Load		10/10		pF/kΩ	
Duty Cycle	45		55	%	Measured 50% of V _{DD}
Jitter, Phase			2	ps RMS	1-σ, 10kHz to 5 MHz frequency band

Notes:

- Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (5 year at 40°C average effective ambient temperature), shock and vibration.
- 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 _{DD}			V	
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V _{DD}	V	Output is Hi-Z
Output Disable Delay			100	ns	
Output Enable Delay			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/timing/oscillators/UJ_1.8V/

For test circuit go to: http://www.pericom.com/pdf/sre/tc_clipsine2.pdf

For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow2.pdf>

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_2520_xo.pdf