

PX Type 3.2 x 2.5 mm SMD Crystal Oscillator

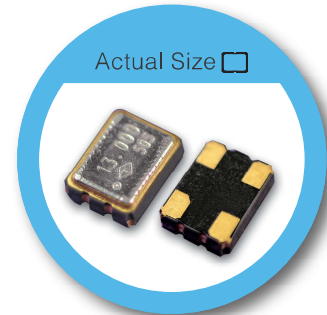
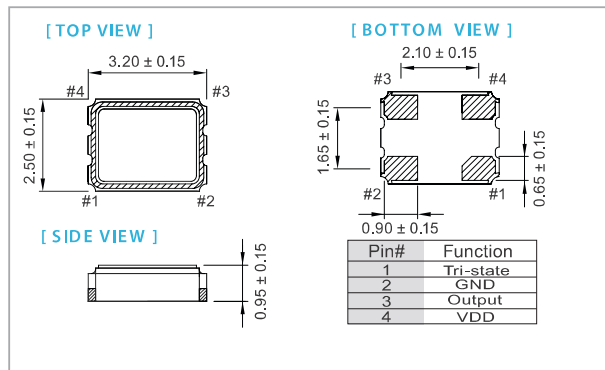
FEATURE

- Typical 3.2 x 2.5 x 0.95mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

TYPICAL APPLICATION

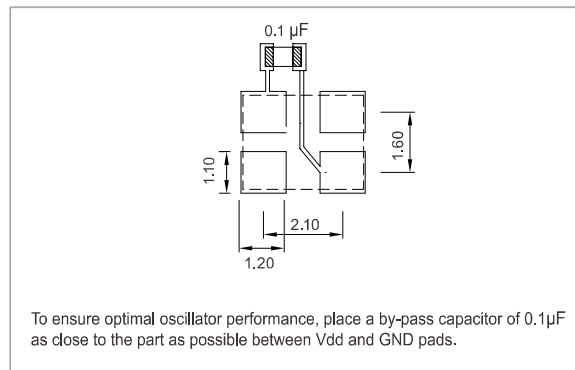
- Computer Peripherals
- Set-top Box , HDTV
- DSC, PDA

DIMENSION (mm)



RoHS Compliant

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3 V		2.5 V		1.8 V		unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD)	VDD-10%	VDD+10%	VDD-10%	VDD+10%	VDD-10%	VDD+10%	V
Frequency Range	2.048	200	2.048	166	2.048	110	MHz
VDD Sensitivity (±10 %)	-2	2	-2	2	-2	2	ppm
Supply Current 2.048 MHz ≤ Fo < 30 MHz 30 MHz ≤ Fo < 75 MHz 75 MHz ≤ Fo < 133 MHz 133 MHz ≤ Fo < 166 MHz 166 MHz ≤ Fo ≤ 200 MHz	-	10	-	8	-	6	mA
	-	15	-	10	-	8	
	-	20	-	15	-	12	
	-	22	-	15	-	-	
	-	25	-	-	-	-	
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS) Output High (Logic "1") Output Low (Logic "0")	2.97	-	2.25	-	1.62	-	V
	-	0.33	-	0.25	-	0.18	
Transition Time: Rise/Fall Time⁺ 2.048 MHz ≤ Fo < 10 MHz 10 MHz ≤ Fo	-	3	-	4	-	5	nSec
	-	2	-	3	-	4	
Start Time	-	2	-	2	-	2	mSec
Tri-State (Input to Pin 1) Enable (High voltage or floating) Disable (Low voltage or GND)	2.31	-	1.75	-	1.26	-	V
	-	0.99	-	0.75	-	0.54	
Period Jitter (Pk-Pk) Specific Frequency ^{**} Others	-	40	-	40	-	40	pSec
	-	200	-	200	-	200	
Standby Current	-	15	-	15	-	15	μA
Aging (@ 25°C 1st year)	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

** Specific frequency including 4.0, 6.0, 8.0, 12.0, 13.0, 16.0, 19.2, 20.0, 24.0, 26.0, 32.0, 38.4 and 40.0MHz

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	±20	±25	±50
-10 ~ +60	○	○	○	○
-20 ~ +70	△	○	○	○
-40 ~ +85	×	○	○	○

* ○: Available △: Conditional X: Not available

* Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration

Note: not all combination of options are available. Other specifications may be available upon request.

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Specifications subject to change without notice.