

# OX Type

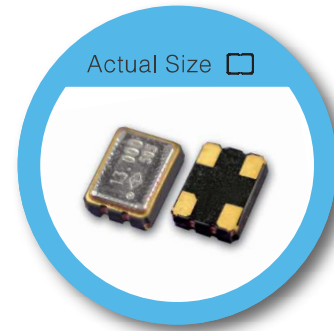
## 3.2 x 2.5 mm SMD Crystal Oscillator

### FEATURE

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

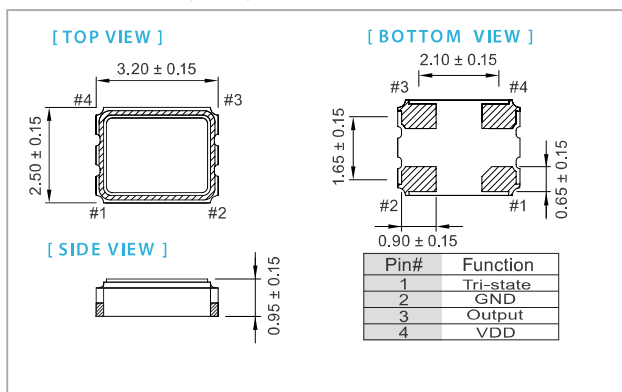
### TYPICAL APPLICATION

- WLAN/WiMAX
- Mobile Phone
- DSC, Set-top Box, HDTV

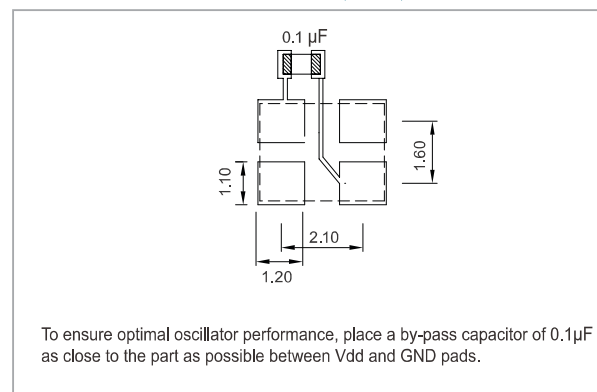


RoHS Compliant

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	3.3 V		2.5 V		1.8 V		unit	
	Min.	Max.	Min.	Max.	Min.	Max.		
<b>Supply Voltage Variation (VDD) ±10%</b>	2.97	3.63	2.25	2.75	1.62	1.98	V	
<b>Frequency Range</b>	1.25	125	1.25	125	1.25	125	MHz	
<b>Standard Frequency</b>	24, 26, 32, 38.4, 40							
<b>Supply Current</b>	1.25 MHz ≤ Fo < 100 MHz	—	15	—	10	—	7	mA
	100 MHz ≤ Fo ≤ 125 MHz	—	25	—	20	—	12	
<b>Duty Cycle</b>	45	55	45	55	45	55	%	
<b>Output Level (CMOS)</b>	Output High (Logic "1")	2.97	—	2.25	—	1.62	—	V
	Output Low (Logic "0")	—	0.33	—	0.25	—	0.18	
<b>Transition Time: Rise/Fall Time<sup>+</sup></b>	1.25 MHz ≤ Fo < 20 MHz	—	3	—	4	—	5	nSec
	20 MHz ≤ Fo ≤ 125 MHz	—	2	—	3	—	4	
	<b>Start Time</b>	—	2	—	2	—	2	
<b>Tri-State (Input to Pin 1)</b>	Enable (High voltage or floating)	2.31	—	1.75	—	1.26	—	V
	Disable (Low voltage or GND)	—	0.99	—	0.75	—	0.54	
<b>Period Jitter (PK-PK)</b>	—	40	—	40	—	40	pSec	
<b>RMS Phase Jitter</b> ( Integrated 12 kHz ~ 20 MHz )	—	1	—	1	—	1	pSec	
<b>Standby Current</b>	—	10	—	10	—	10	µA	
<b>Aging (@ 25°C 1st year)</b>	—	±3	—	±3	—	±3	ppm	
<b>Storage Temp. Range</b>	-55	125	-55	125	-55	125	°C	

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

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

### 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 (1<sup>st</sup> year), shock, and vibration

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

Rev(7)04/2015

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