

OX Type

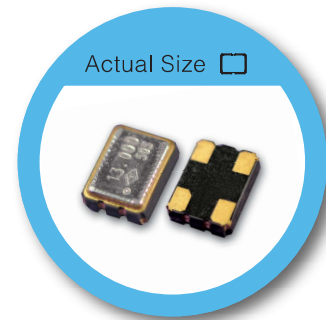
3.2 x 2.5 mm SMD Crystal Oscillator

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

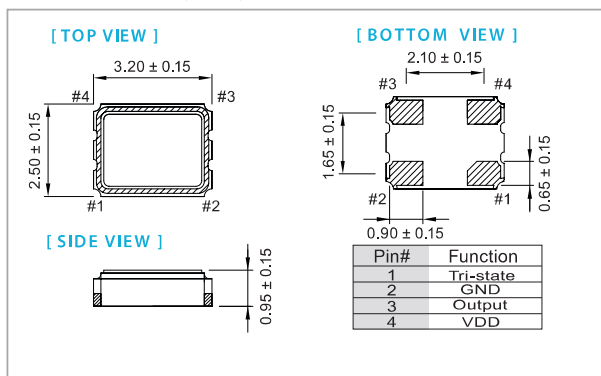
TYPICAL APPLICATION

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

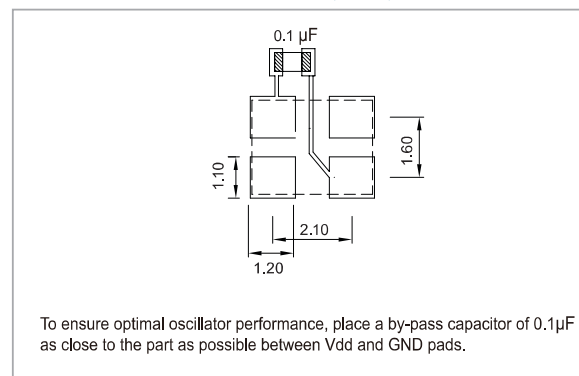


RoHS Compliant

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.	
Supply Voltage Variation (V_{DD})	V _{DD} -10%	V _{DD} +10%	V _{DD} -10%	V _{DD} +10%	V _{DD} -10%	V _{DD} +10%	V
Frequency Range	1.25	125	1.25	125	1.25	125	MHz
Standard Frequency	24, 26, 32, 38.4, 40						
Supply Current	1.25 MHz ≤ F _o < 100 MHz		100 MHz ≤ F _o ≤ 125 MHz				
	—	15	—	10	—	7	mA
	—	25	—	20	—	12	
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⁺	1.25 MHz ≤ F _o < 20 MHz		20 MHz ≤ F _o < 80 MHz		80 MHz ≤ F _o ≤ 125 MHz		
	—	4	—	4	—	5	nSec
	—	3	—	3	—	4	
	—	3	—	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)	—	40	—	40	—	40	pSec
RMS Phase Jitter (Integrated 12 kHz ~ 20 MHz)	—	1	—	1	—	1	pSec
Standby Current	—	10	—	10	—	10	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 V_{DD}, with an output load of 15pF.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm		
	±20	±25	±50
-10 ~ +60	○	○	○
-20 ~ +70	△	○	○
-40 ~ +85	×	○	○
-40 ~ +125	×	×	○

* ○: 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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