

OX Type

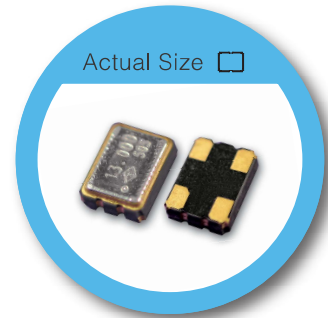
3.2 x 2.5 mm SMD Crystal Oscillator

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

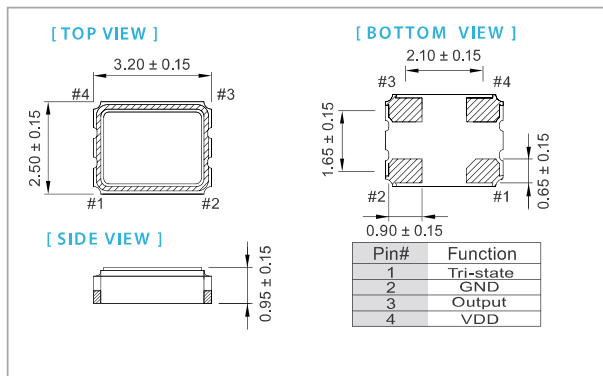
- WLAN/WiMAX
- Mobile Phone
- DSC, Set-top Box, HDTV



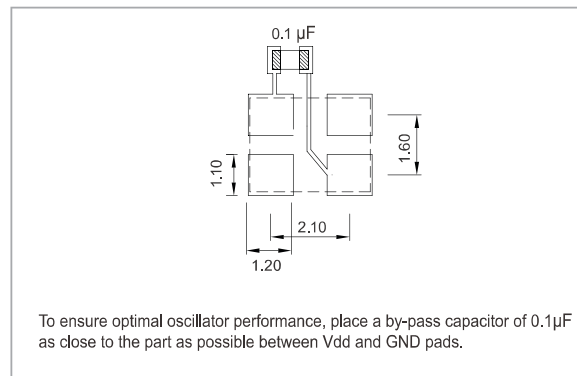
Actual Size

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}) ±10%	2.97	3.63	2.25	2.75	1.62	1.98	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	15	10	7			mA
	100 MHz ≤ F _o ≤ 125 MHz	25	20	12			
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS)	Output High (Logic "1")	2.97	2.25	1.62			V
	Output Low (Logic "0")	0.33	0.25	0.18			
Transition Time: Rise/Fall Time ⁺	1.25 MHz ≤ F _o < 20 MHz	4	4	5			nSec
	20 MHz ≤ F _o < 80 MHz	3	3	4			
	80 MHz ≤ F _o ≤ 125 MHz	3	3	4			
Start Time	2	2	2				mSec
Tri-State (Input to Pin 1)	Enable (High voltage or floating)	2.31	1.75	1.26			V
	Disable (Low voltage or GND)	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	×	○	○

* ○: 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.