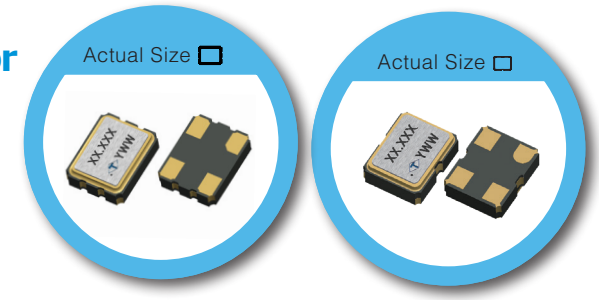
TAITIEN
Our Performance, Your Reputation

32.768kHz Series
OX / OY Type
3.2 x 2.5 / 2.5 x 2.0 mm SMD Oscillator



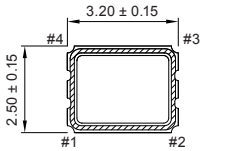
RoHS Compliant

FEATURE
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable
- Built-in ASIC enables reduction of current consumption.

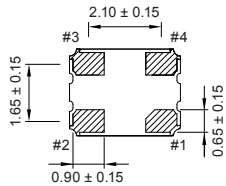
TYPICAL APPLICATION
- Typically used for real time clock application.
- Mobile Phone
- DSC,Set-top Box ,HDTV
- Car navigation systems.

DIMENSION (mm)

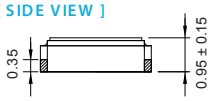
[TOP VIEW]



[BOTTOM VIEW]

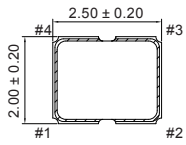


[SIDE VIEW]

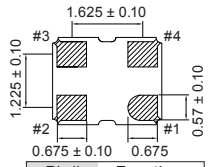


Pin#	Function
1	Tri-state
2	GND
3	Output
4	VDD

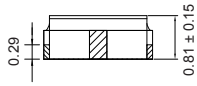
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



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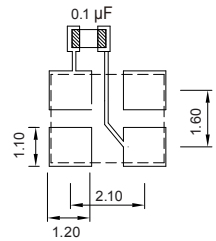
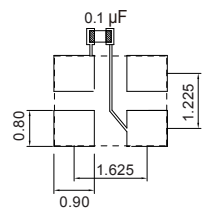
SOLDER PAD LAYOUT (mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.



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ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD)	VDD-10%	VDD+10%	VDD-10%	VDD+10%	VDD-10%	VDD+10%	V
Supply Current (@ 15pF load)	–	120	–	120	–	120	uA
(@ no load)	–	80	–	80	–	80	uA
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+	–	50	–	50	–	50	nSec
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	
Aging (@25˚C 1st year)	–	±3	–	±3	–	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	℃

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,withan output load of 15pF

FREQ. STABILITY vs. TEMP. RANGE

Temp.(℃) \ ppm	±20	±25	±40	±50
-10~+60	○	○	○	○
-20~+70	△	○	○	○
-40~+85	×	△	○	○
-40~+105	×	×	○	○
-40~+125	×	×	△	○

* O: Available △:Conditional X: Not available

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

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

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