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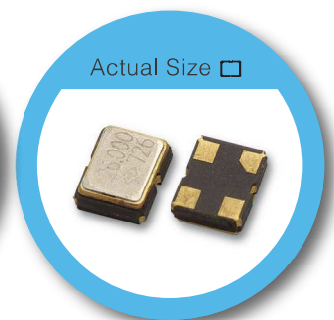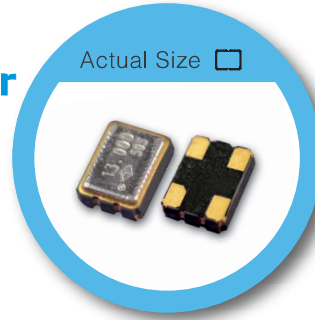# 3.2 x 2.5 / 2.5 x 2.0 mm SMD Oscillator

TAITIEN
Our Performance, Your Reputation

Actual Size □   Actual Size □

RoHS Compliant

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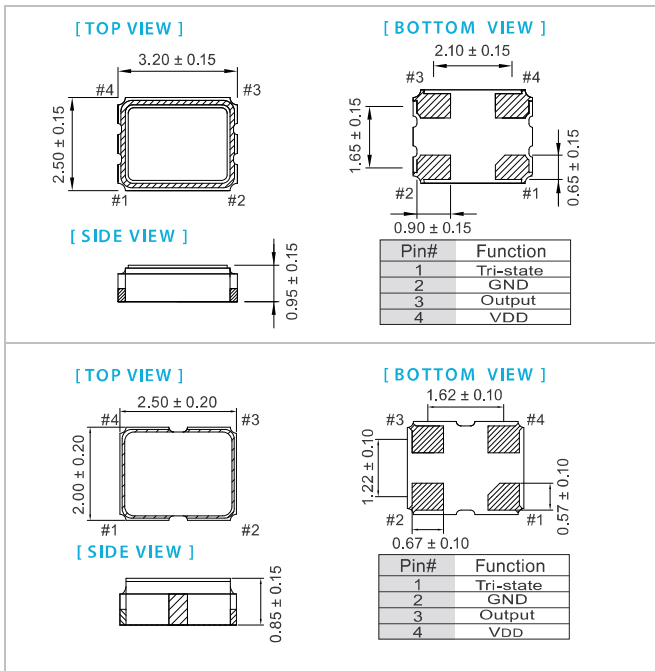- Built-in ASIC enables reduction of current consumption.

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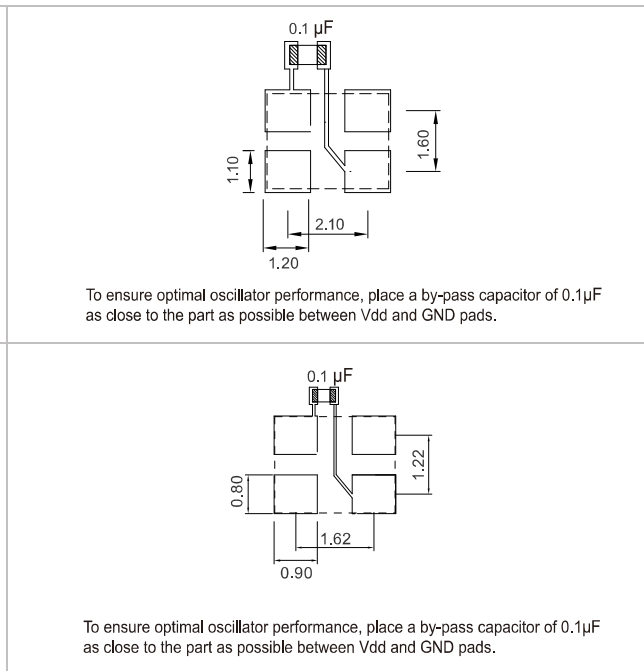- Mobile Phone
- DSC,Set-top Box ,HDTV
- Car navigation systems.

DIMENSION (mm)

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

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

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.

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.

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)	--	70	--	66	--	63	uA
(@ no load)	--	65	--	62	--	60	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.