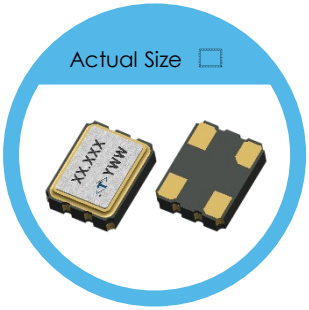
TAITIEN
Our Performance, Your Reputation

OX Type
3.2 x 2.5 mm SMD Crystal Oscillator

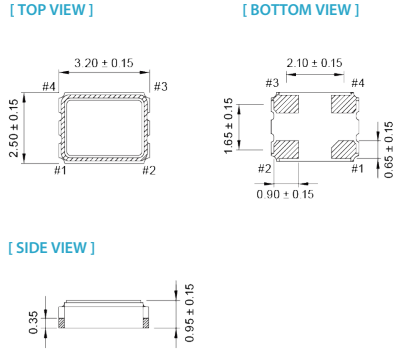


RoHS Compliant

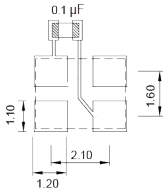
FEATURES
- Conforms to AEC-Q200
- Typical 3.2 x 2.5 x 0.95 mm Ceramic SMD Package
- Tight Symmetry (45 to 55%) Available
- Operation Voltage: 1.8V, 2.5V, 3.3V
- Tri-State Enable/Disable

TYPICAL APPLICATION
- WLAN/WiMax
- Mobile Phone
- DSC, Set-top Box, HDTV

DIMENSION (mm)



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 V_{DD} and GND pads.

PIN FUNCTION (mm)

PIN#	FUNCTION
1	Tri-State
2	GND
3	Output
4	V_{DD}

ELECTRICAL SPECIFICATION

Parameter			3.3V		2.5V		1.8V		Unit	Test Condition
			Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation (V_{DD})			V_{DD} – 5%	V_{DD} + 5%	V_{DD} – 5%	V_{DD} + 5%	V_{DD} – 5%	V_{DD} + 5%	V	
Frequency Range			1.25	125	1.25	125	1.25	125	MHz	
Standard Frequency			24, 26, 30, 40						MHz	Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.
Supply Current	At 15pF Load			15		10		7	mA	
	No Load Condition	1.25 MHz ≦ Fo < 10 MHz		1.5		1.5		1.2	mA	
		10 MHz ≦ Fo < 20 MHz		2		2		1.5	mA	
		20 MHz ≦ Fo < 80 MHz		3		2.5		1.5	mA	
		80 MHz ≦ Fo < 125 MHz		8		7		5	mA	
Duty Cycle			45	55	45	55	45	55	%	
Output Level	Output High		2.97		2.25		1.62		V	
	Output Low			0.33		0.25		0.18	V	
Transition Time: Rise/Fall Time	1.25 MHz ≦ Fo < 10 MHz			3		4		5	nSec	Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15 pF.
	10 MHz ≦ Fo < 20 MHz			3		3		4	nSec	
	20 MHz ≦ Fo < 80 MHz			3		3		4	nSec	
	80 MHz ≦ Fo < 125 MHz			3		3		4	nSec	
Startup 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	V	
Output Loading			15		15		15		pF	
Standby Current (@-40°C to 85°C)				10		10		10	µA	
Standby Current (@-40°C to 125°C)				20		20		20	µA	
Period Jitter (pk-pk)				40		40		40	pSec	
RMS Phase Jitter (Integrated 12 kHz~20 MHz)				1		1		1	pSec	
Aging (@25°C, 1st year)				±3		±3		±3	ppm	
Storage Temp. Range			-55	+125	-55	+125	-55	+125	°C	

FREQ. STABILITY vs. TEMP. RANGE

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

○: Available △:Conditional ×: Not Available
Inclusive of calibration @ 25°C ,operating temperature rrange,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.
Specifications subject to change without notice.

www.taitien.com
sales@taitien.com.tw