

PZ-U Type Crystal Oscillator

FASTXO 2.0 x 1.6 mm SMD XO

Frequency up to 200MHz

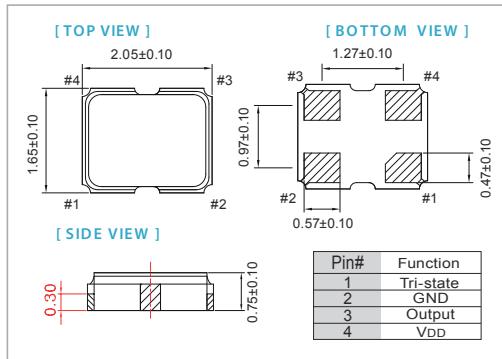
FEATURE

- Typical 2.05 x 1.65 x 0.75 mm ceramic SMD package
- Operation supply voltage: 1.8V, 2.5V and 3.3V
- FASTXO series, Fast delivery at any frequency
- Tri-State Enable/Disable
- Frequency Stability ± 20 ppm over -40°C to 105°C
- Pb-free/RoHS compliant

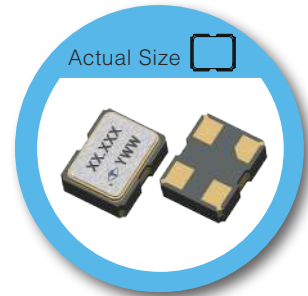
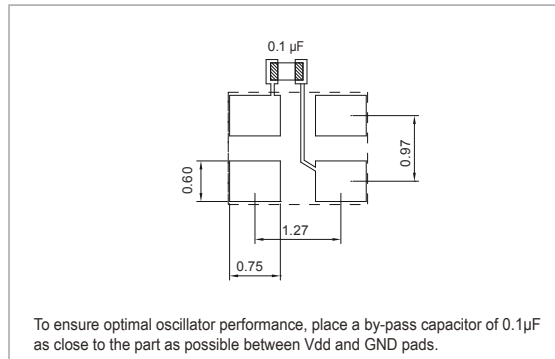
TYPICAL APPLICATION

- Wearable device
- Mobile device
- IoT, Smartphone
- Game console

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



RoHS Compliant

ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit	
	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation	$V_{DD}-5\%$	$V_{DD}+5\%$	$V_{DD}-5\%$	$V_{DD}+5\%$	$V_{DD}-5\%$	$V_{DD}+5\%$	V	
Frequency Range	1	200	1	200	1	125	MHz	
V_{DD} Sensitivity ($\pm 5\%$)	-2	2	-2	2	-2	2	ppm	
Supply Current (@15pf Loading)	1MHz \leq Fo < 30MHz	-	27	-	27	-	25	mA
	30MHz \leq Fo < 75MHz	-	27	-	27	-	25	
	75MHz \leq Fo < 125MHz	-	30	-	30	-	25	
	125MHz \leq Fo < 170MHz	-	35	-	35	-	-	
	170MHz \leq Fo \leq 200MHz	-	40	-	35	-	-	
Output Level	Output High	90% V_{DD}	-	90% V_{DD}	-	90% V_{DD}	-	V
	Output Low	-	10% V_{DD}	-	10% V_{DD}	-	10% V_{DD}	V
Transition Time	1MHz \leq Fo < 10MHz	-	3	-	4	-	4	nSec
Rise Time / Fall Time	10MHz \leq Fo < 125MHz	-	2	-	3	-	3	
	125MHz \leq Fo < 200MHz	-	2	-	2	-	-	
Duty Cycle	45	55	45	55	45	55	%	
Startup Time	-	8	-	8	-	8	mSec	
Tri-State	Output Enable	0.7 x V_{DD}	-	0.7 x V_{DD}	-	0.7 x V_{DD}	-	V
	Output Disable	-	0.3 x V_{DD}	-	0.3 x V_{DD}	-	0.3 x V_{DD}	
Stand by Current (@PD Mode)	-	400	-	400	-	400	μA	
Stand by Current (@OE Mode)	-	20	-	20	-	20	mA	
Output Loading	15		15		15		pf	
RMS Phase Jitter offset 12kHz to 20MHz @50MHz	Integer Mode	-	1.5	-	1.5	-	1.5	pSec
	Fractional Mode	-	2.0	-	2.0	-	2.0	
Aging (@ 25°C, First Year)	± 3		± 3		± 3		ppm	
Storage Temp. Range	-55	125	-55	125	-55	125	$^{\circ}\text{C}$	

FREQ. STABILITY vs. TEMP. RANGE

Temp. ($^{\circ}\text{C}$)	ppm	± 15	± 20	± 25	± 50
-20~+70		Δ	\circ	\circ	\circ
-40~+85		\times	Δ	\circ	\circ
-40~+105		\times	Δ	\circ	\circ

*O: Available Δ : Conditional X: Not available
 *Inclusive of calibration @ 25 $^{\circ}\text{C}$, operating temperature range,ir Voltage variation,load variation,aging (1 st year),shock, and vibratic

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