

High Precision Crystal Oscillator

OX-B/OY-B Series

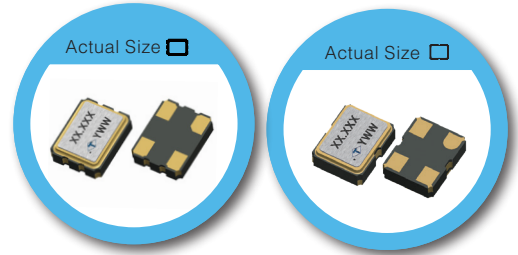
3.2 X 2.5 / 2.5 X 2.0 mm SMD Crystal Oscillator

FEATURE

- Typical 3.2 x 2.5 x 0.95 and 2.5 x 2.0 x 0.8mm ceramic SMD package.
- Tight frequency stability: $\pm 5\text{ppm}$ over -10°C to 70°C
- Tight frequency stability: $\pm 3\text{ppm}$ over 0°C to 60°C .
- Operation supply voltage: 1.8V, 2.5V, 3.3V.
- LVCOMS Output Logic
- Wide frequency range : 1MHz ~ 200MHz
- Pb-free/RoHS compliant

TYPICAL APPLICATION

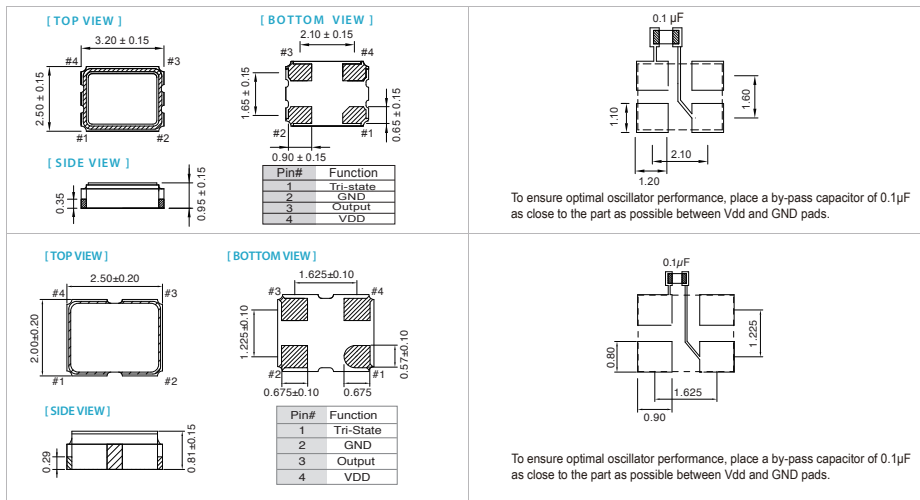
- Wireless Connectivity
- Mobile device
- Smart meter



RoHS Compliant

DIMENSION (mm)

SOLDER PAD LAYOUT (mm)



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	Standard	1	200	1	200	1	125	MHz
	Low drive	1	150	1	125	1	50	MHz
Supply Current (@15pf Loading)	-	30	-	28	-	20	mA	
Output Level	Output logic		CMOS		CMOS			
	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 for Standard	Rise Time	-	2	-	2	-	3	nSec
	Fall Time	-	2	-	2	-	3	nSec
Transition Time Low drive	Rise Time	-	5	-	6	-	10	nSec
	Fall Time	-	5	-	6	-	10	nSec
Duty Cycle	45	55	45	55	45	55	%	
Startup Time	-	8	-	8	-	8	mSec	
Tri-State	Output Enable	$0.7 \times V_{DD}$	-	$0.7 \times V_{DD}$	-	$0.7 \times V_{DD}$	-	V
	Output Disable	-	$0.3 \times V_{DD}$	-	$0.3 \times V_{DD}$	-	$0.3 \times V_{DD}$	V
Stand by Current	-	400	-	400	-	400	uA	
Output Loading	-	15	-	15	-	15	pf	
RMS Phase Jitter (12KHz to 20MHz) @3.3V	-	2	-	2	-	2	pSec	
Aging (@ 25°C, 1st Year)	-	± 1	-	± 1	-	± 1	ppm	
Storage Temp. Range	-55	+125	-55	+125	-55	+125	°C	

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	± 3	± 5	± 10	± 12
+0 ~ +60		○	○	○	○
-10 ~ +70		×	○	○	○
-30 ~ +85		×	×	○	○

*O: Available Δ : Conditional X: Not available
 *Inclusive of calibration @ 25°C ,operating temperature range,input Voltage variation,load variation.

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