

OZ Type

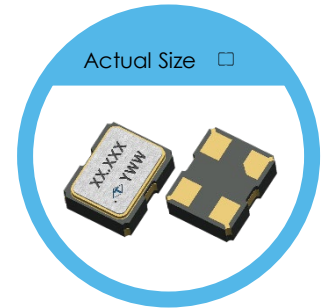
2.0 x 1.6 mm SMD Crystal Oscillator

FEATURES

- Conforms to AEC-Q200
- Typical 2.05 x 1.65 x 0.75 mm ceramic SMD package
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable/disable

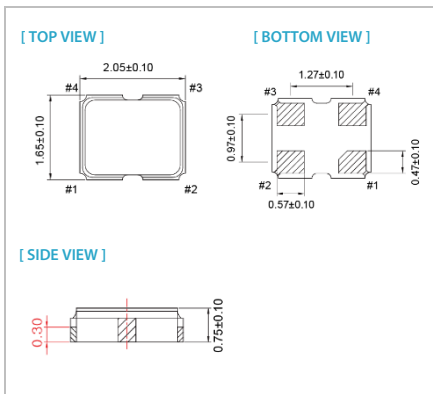
TYPICAL APPLICATION

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

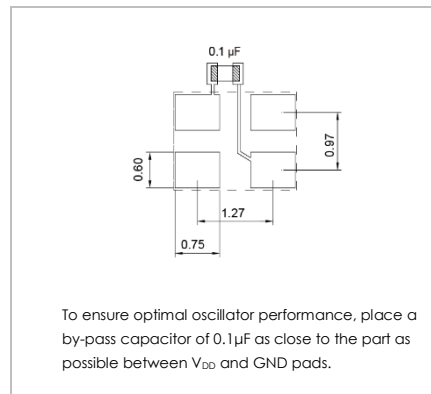


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



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} - 10%	V _{DD} + 10%	V _{DD} - 10%	V _{DD} + 10%	V _{DD} - 10%	V _{DD} + 10%	V	
Frequency Range	1.5	50	1.5	50	1.5	50	MHz	
Standard Frequency	24, 26						MHz	Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.
Supply Current		15		10		7	mA	
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		V	
Transition Time: Rise/Fall Time	1.5 MHz ≤ F _o < 20 MHz		4	4	5		nSec	Transition times are measured between 10% and 90% of V _{DD} , with an output load of 15 pF.
	20 MHz ≤ F _o < 50 MHz		3	3	4		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		V	
Period Jitter (pk-pk)		40		40		40	pSec	
RMS Phase Jitter (Integrated 12 kHz~20 MHz)		1		1		1	pSec	
Standby Current		10		10		10	µA	
Aging (@25°C 1 st 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	X	△	○
-40 ~ +125	X	X	△

○: Available △: Conditional x: Not Available
 Inclusive of calibration @ 25°C, operating temperature range, 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.