

OV Type

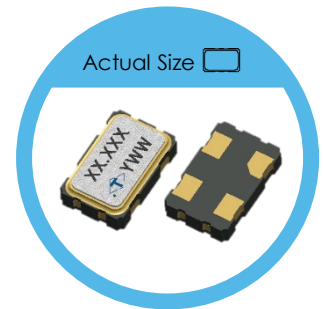
5.0 x 3.2 mm SMD Crystal Oscillator

FEATURES

- Conforms to AEC-Q200
- Typical 5.0 x 3.2 x 1.2 mm Ceramic SMD Package
- Tight Symmetry (45 to 55%) Available
- Realize the Standby Function with Tri-State

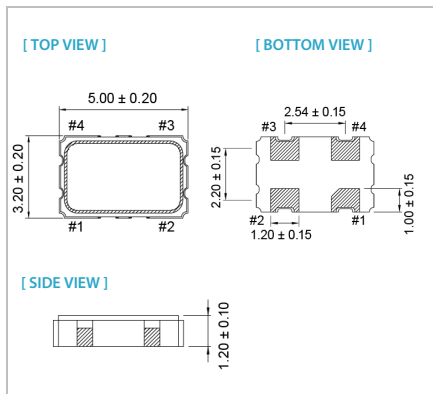
TYPICAL APPLICATION

- GPS, Mobile Phone
- WLAN, Wireless, Fiber/10Gbit Ethernet
- Netbook, PDA, DSC

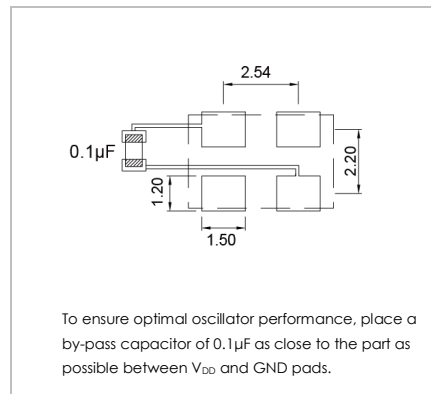


RoHS Compliant

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	0.0137	160	0.0137	160	0.0137	135	MHz	
Standard Frequency	2.048, 25, 26, 27, 50, 66.667, 100, 125						MHz	Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.
Supply Current	13.7 kHz ≤ Fo ≤ 93 kHz		1		1		mA	
	0.3125 MHz ≤ Fo < 50 MHz (A1)		10		8		mA	
	40 MHz ≤ Fo < 75 MHz		20		18		mA	
	75 MHz ≤ Fo < 135 MHz		35		30		mA	
Output Level (CMOS)	Output High (Logic "1")		2.97		2.25		V	
	Output Low (Logic "0")		0.33		0.25		V	
Transition Time: Rise/Fall Time	13.7 kHz ≤ Fo ≤ 93 kHz		50		50		nSec	Transition times are measured between 10% and 90% of V _{DD} , with an output load of 15 pF.
	0.3125 MHz ≤ Fo < 100 MHz		5		5		nSec	
	100 MHz ≤ Fo		3		3		nSec	
Start Time			5		5		mSec	
Output Drive Capability (CL)			15		15		pF	
Tri-State (Input to Pin 1)	Enable (High Voltage or Floating)		2.31		1.75		V	
	Disable (Low Voltage or GND)		0.99		0.75		V	
Period Jitter (pk-pk)			40		40		pSec	
RMS Phase Jitter (Integrated 12 kHz-20 MHz)			1		1		pSec	
Standby Current			10		10		µA	
Aging (@25°C, 1 st year)			±3		±3		ppm	
Storage Temp. Range	-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.