

PC Type

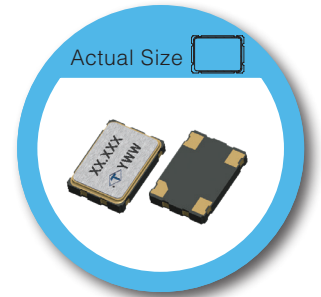
7.0 x 5.0 mm SMD Crystal Oscillator

FEATURE

- Typical 7.0 x 5.0 x 1.3 mm ceramic SMD package.
- Output frequency up to 200 MHz
- Tri-state enable/disable

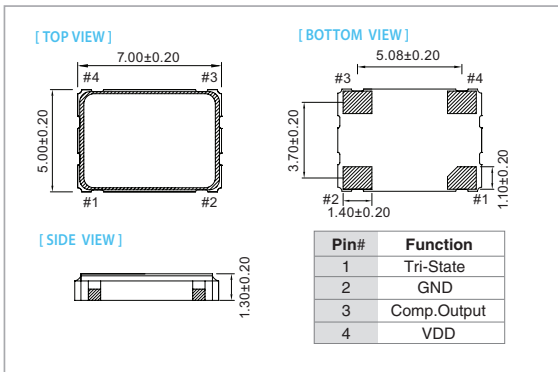
TYPICAL APPLICATION

- xDSL, WLAN, Fiber/10G-Bit Ethernet
- Notebook, PDA
- PC main board, VGA card

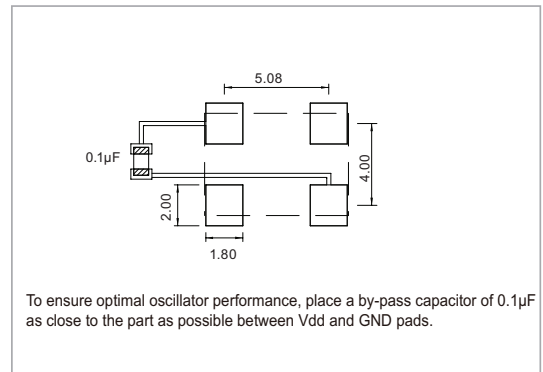


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3 V		2.5 V		1.8 V		unit	
	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	200	1	166	1	110	MHz	
V _{DD} Sensitivity (±10 %)	-2	2	-2	2	-2	2	ppm	
Supply Current	1 MHz ≤ F _o ≤ 110 MHz	–	20	–	15	–	10	mA
	110 MHz < F _o ≤ 166 MHz	–	25	–	20	–	–	
	166 MHz < F _o ≤ 200 MHz	–	30	–	–	–	–	
Duty Cycle	40	60	40	60	40	60	%	
Output Level (CMOS)	Output High (Logic "1")	2.97	–	2.25	–	1.62	–	V
	Output Low (Logic "0")	–	0.33	–	0.25	–	0.18	
Transition Time: Rise/Fall Time ⁺	1 MHz ≤ F _o ≤ 200 MHz	–	5	–	5	–	5	nSec
Start Time	–	5	–	5	–	5	–	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	
Period Jitter (Pk-Pk)	Specific Frequency"	–	40	–	40	–	40	pSec
	Others	–	200	–	200	–	200	
Standby Current	–	15	–	15	–	15	–	µA
Aging (@ 25°C 1st year)	–	±3	–	±3	–	±3	–	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	–	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15pF.

" Specific frequencies include 4.0, 6.0, 8.0, 12.0, 13.0, 16.0, 19.2, 20.0, 24.0, 26.0, 32.0, 38.4 and 40.0MHz

FREQ. STABILITY vs. TEMP. RANGE

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

* ○ : 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.