

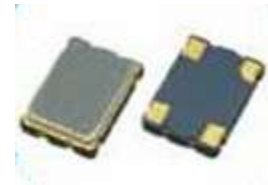
Series TH7

7.0X5.0MM SMD Crystal Oscillator

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

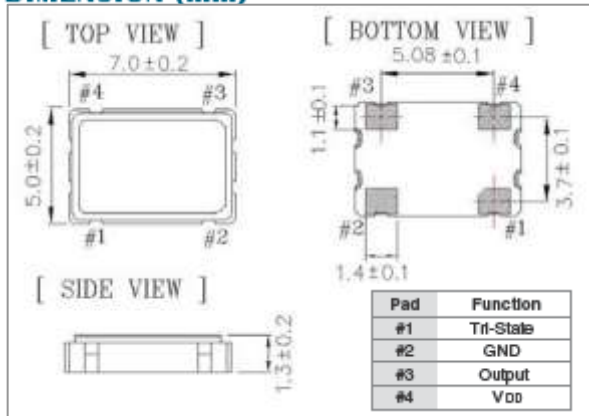


TYPICAL APPLICATION

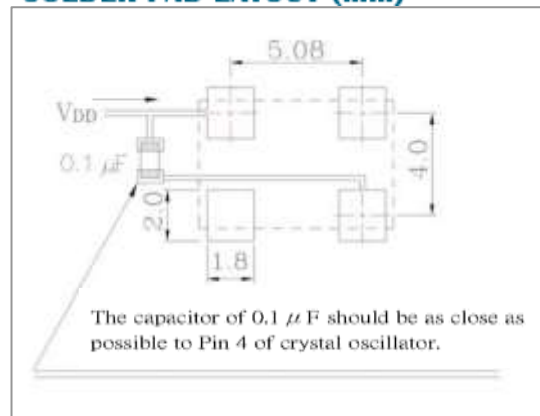
- xDSL, WLAN, Fiber/10G-Bit Ethernet
- Notebook, PDA
- PC main board, VGA card

RoHS Compliant Standard

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 (VDD) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1	200	1	166	11	110	MHz
Standard Frequency	75,100,125,150,200						MHz
VDD Sensitivity (±10%)	-2	2	-2	2	-2	2	ppm
Supply Current	1MHz ≤ F0 ≤ 110MHz		110MHz < F0 ≤ 166MHz		166MHz < F0 ≤ 200MHz		mA
	-	20	-	15	-	10	
	-	25	-	20	-	-	
	-	30	-	-	-	-	
Duty Cycle	40	60	40	60	40	60	%
Output Level (CMOS)							
Output High (Logic "1")	90%VDD	-	90%VDD	-	90%VDD	-	V
Output High (Logic "0")	-	10%VDD	-	10%VDD	-	10%VDD	
Transition Time: Rise/Fall Time*							
1MHz ≤ F0 ≤ 200MHz	-	5	-	5	-	5	nSec
Start Time	-	5	-	5	-	5	mSec
Tri-State(Input to Pin1)							
Enable(High voltage or floatig)	0.7VDD	-	0.7VDD	-	0.7VDD	-	V
Disable(Low voltage or GND)	-	0.3VDD	-	0.3VDD	-	0.3VDD	
Absolute Clock Period Jitter							
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 VDD, with an output load of 15pF.

* Specific frequency including 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

Packing: Tape & Reel, 1000/3000pcs per Reel.

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

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Specifications subject to change without notice