

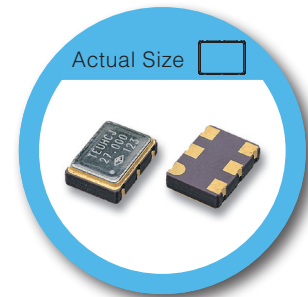
7.0 x 5.0 mm SMD Voltage Controlled Crystal Oscillator – VT Type

FEATURE

- Typical 7.0 x 5.0 x 1.6 mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Packing: Tape & Reel, 1000/3000pcs per Reel.

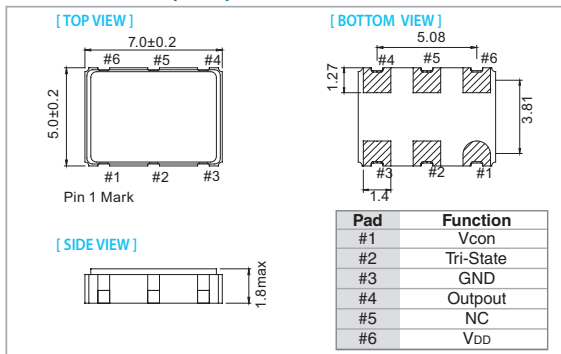
TYPICAL APPLICATION

- Set-top Box, HDTV
- Wimax/WLAN
- xDSL/ VoIP, Cable modem

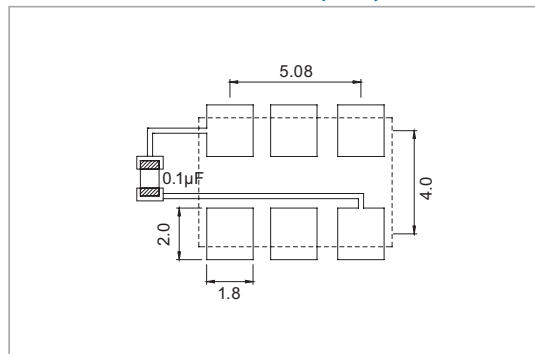


RoHS Compliant Standard

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	5.0 V		3.3 V		Unit
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 10%	4.5	5.5	2.97	3.63	V
Frequency Range	1.5	50	1.5	200	MHz
Absolute Pulling Range (APR)	±50	—	±50	—	ppm
Control Voltage Range	0.5	4.5	0.3	3.0	V
Supply Current	1.5 MHz ≤ Fo < 20 MHz	—	15	10	mA
	20 MHz ≤ Fo < 50 MHz	—	30	20	
	50 MHz ≤ Fo ≤ 80 MHz	—	35	30	
	80 MHz < Fo < 160 MHz	—	—	40	
	160 MHz ≤ Fo ≤ 200 MHz	—	—	50	
Output Level (CMOS)					V
Output High (Logic"1")	90%VDD	—	90% VDD	—	
	Output Low (Logic"0")	—	10% VDD	10% VDD	
Transition Time: Rise/Fall Time+					nSec
	1.5 MHz ≤ Fo < 20 MHz	—	4	—	
	20 MHz ≤ Fo < 50 MHz	—	3	—	
	50 MHz ≤ Fo ≤ 80 MHz	—	2	—	
	80 MHz < Fo ≤ 200 MHz	—	—	2	
Start Time					mSec
Tri-State(Input to Pin 2)					V
Enable	0.7 VDD	—	0.7 VDD	—	
Disable	—	0.3 VDD	—	0.3 VDD	
Absolute Clock Period Jitter					pSec
RMS Phase Jitter (Integrated 12KHz~20MHz)					pSec
Linearity					%
Modulation Bandwidth (BW)					KHz
	1.5 MHz ≤ Fo ≤ 55 MHz	20	—	20	
	55 MHz < Fo ≤ 80 MHz	30	—	30	
	80 MHz < Fo ≤ 200 MHz	45	—	45	
Input Impedance					KΩ
	1.5 MHz ≤ Fo < 100 MHz	2000	—	2000	
	100 MHz ≤ Fo ≤ 200 MHz	50	—	50	
Aging					ppm
Storage Temp. Range					°C.
		-55	125	-55	125

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.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	±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