

Crystal Oscillator

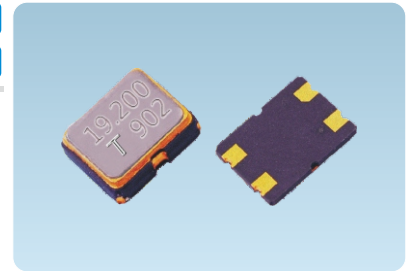


RoHS compliance

TO2 TYPE

Typical 2.5 × 2.0 × 0.85 mm

Low phase jitter



Feature

- Typical 2.5 × 2.0 × 0.85 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V.
- Packing: Tape & Reel, 3000 pcs per Reel.

Typical Application

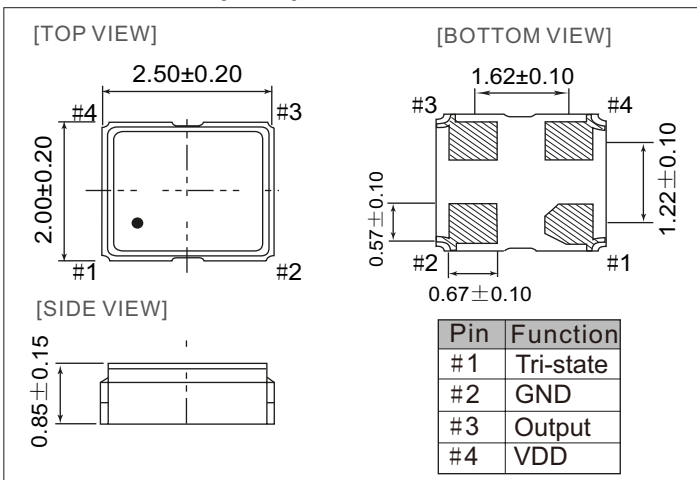
- WLAN/WiMax
- Mobile Phone
- DSC, Set-top Box, HDTV

Specifications

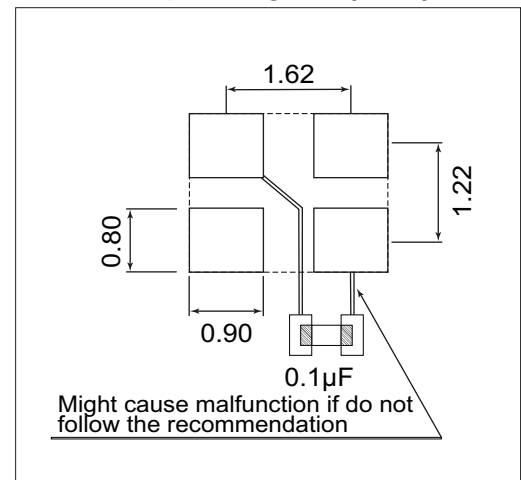
Parameter	3.3V		2.5V		1.8V		Unit
	Min	Max	Min	Max	Min	Max	
Supply Voltage Variation(VDD)	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	0.032768	125	0.032768	125	0.032768	125	MHz
Supply Current Fo = 32.768KHz(@15pF load) Fo = 32.768KHz(@no load) 1.25MHz ≤ Fo ≤ 125MHz	–	70	–	66	–	63	μA
	–	65	–	62	–	60	
	–	15	–	10	–	7	mA
Duty Cycle	45	55	45	55	45	55	%
Output Level(CMOS) Output High(Logic"1") Output Low(Logic"0")	90% V _{DD}	–	90% V _{DD}	–	90% V _{DD}	–	V
	–	10% V _{DD}	–	10% V _{DD}	–	10% V _{DD}	
Transition Time; Rise/Fall Time+ Fo = 32.768KHz 1.25MHz ≤ Fo < 20MHz 20MHz ≤ Fo ≤ 125MHz	50Max.						nSec
	4Max.			5Max.			
	3Max.			4Max.			
Start Time	2Max.						mSec
Tri-State(Input to Pin 1) Enable(High voltage floating) Disable(Low voltage or GND)	0.7 V _{DD} Min.						V
	0.3 V _{DD} Max.						
RMS Phase Jitter (Integrated 12K~20MHz)	1Max.						pSec
Standby Current	10Max.						μA
Aging (@25°C 1st year)	±3Max.						ppm
Storage Temp. Range	-55~125						°C

+Transition times are measures between 10% and 90% of VDD, With an output load of 15pF.

Dimension(mm)



Solder pad layout(mm)



Frequency Stability Vs. Temperature Range

Temp.(°C)	Ppm	±20	±25	±50
-10 ~ +60	✓	✓	✓	✓
-20 ~ +70	+	✓	✓	✓
-40 ~ +85	×	✓	✓	✓
-40 ~ +125	+	×	×	✓

Inclusive of calibration @25°C, operating temperature range, input voltage variation, load variation, aging(1st year), shock, and vibration

✓ Available + Conditional × Not Available

Q.C PASS

T1903A