



FEATURE

The SMK7050TCAI encompasses Simake's new patented Pluto+ ASIC.
 Pluto+ advances on the world famous best - in - class' Pluto ASIC technology by delivering exceptional phase noise and jitter performance and enhanced frequency versus temperature stability.

APPLICATION

- ▣ Time and frequency reference
- o Positioning
- o Test and Measurement
- o Telecommunications
- o Hi - Rel / Defense

Specification for electrical appliances

| Parameter | 3.3V | | Unit |
|-----------------------------------|-----------|-----------|------|
| | MIN | MAX | |
| Supply Voltage (VDD) 5% | 3.135 | 3.465 | V |
| Frequency Range | 5 | 65 | MHz |
| Standard Frequency | 10.000000 | | |
| Frequency Tolerance* | 0.5 | | ppm |
| Output waveform | HCMOS | | |
| Vs Load ($\pm 5\%$) change@25°C | ± 0.2 | | ppm |
| Load Variation | ± 0.2 | | ppm |
| Ageing(first year) | ± 1.0 | | ppm |
| Temperature Stability | ± 0.5 | | ppm |
| Voltage control (1.65V) | ± 1.5 | ± 1.5 | V |
| Pullingrange | >6.0 | >6.0 | ppm |
| Output Level (VOL) | 0.4 | | V |
| Output Level (VOH) | 2.7 | | V |
| Operating Current | 10 | | mA |
| Duty Cycle @50% | 45 | 55 | % |
| Rise Time/ Fall Time | 6 | | ns |
| Load | 15 | | pf |
| Operating temperature range | -40 | 85 | ° C |



10.00MHz SMK7050TCAI ocxo ssp phase noise

| Phase Noise | | Unit |
|-------------|------|--------|
| 10Hz | -80 | dBc/Hz |
| 100Hz | -115 | |
| 1KHz | -135 | |
| 10KHz | -140 | |
| 100KHZ | -148 | |

Environmental Parameters

Storage Temperature Range: -55 to 105° C

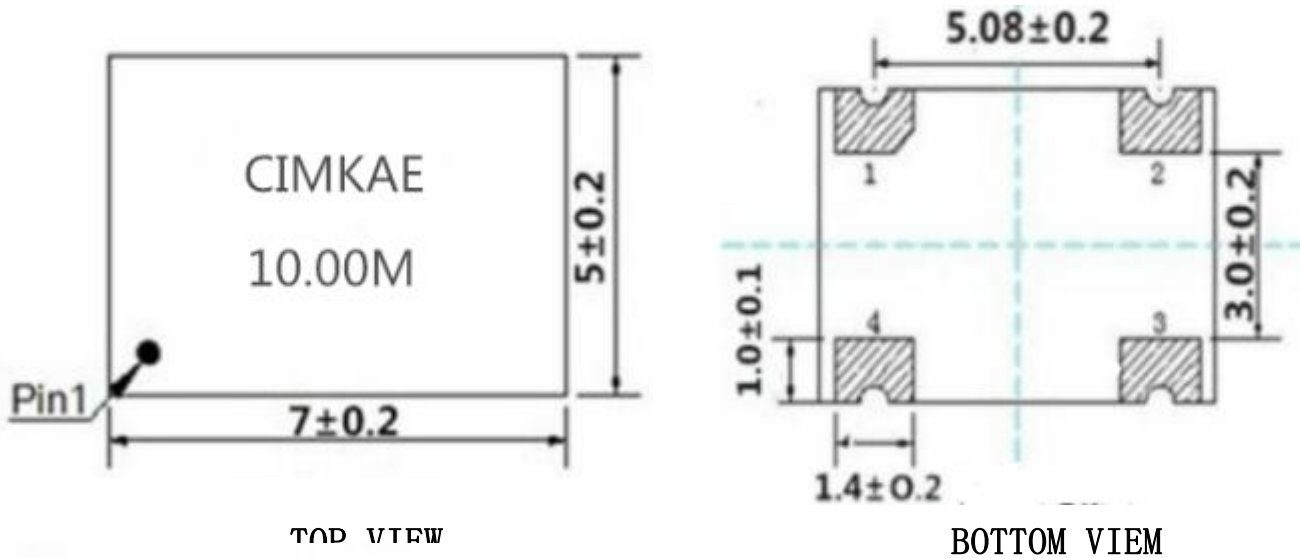
Frequency stability over temperature in still air

Shock: IEC 60068-2-27, Test Ea: 1500G acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes

Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz, 1.5mm displacement, 60-2000Hz at 98.1m/s², 30mins in 3 mutually perpendicular planes at 1 oct/min

Solderability: MIL-STD-202, Method 208, Category 3

DIMENSION (mm)



| Pin Function | |
|--------------|--------|
| #1 | Vc |
| #2 | GND |
| #3 | Output |
| #4 | VDD |