



Features and Benefits

- Frequency range: 10MHz
- Supply voltage: 0.9V
- Current: 1.5mA Max.
- Frequency stability vs. temperature: ±50PPM
- Aging: ±3PPM per year
- Operating temperature: -10°C to +60°C
- Size: 3.2x2.5x0.95 mm

Typical Applications

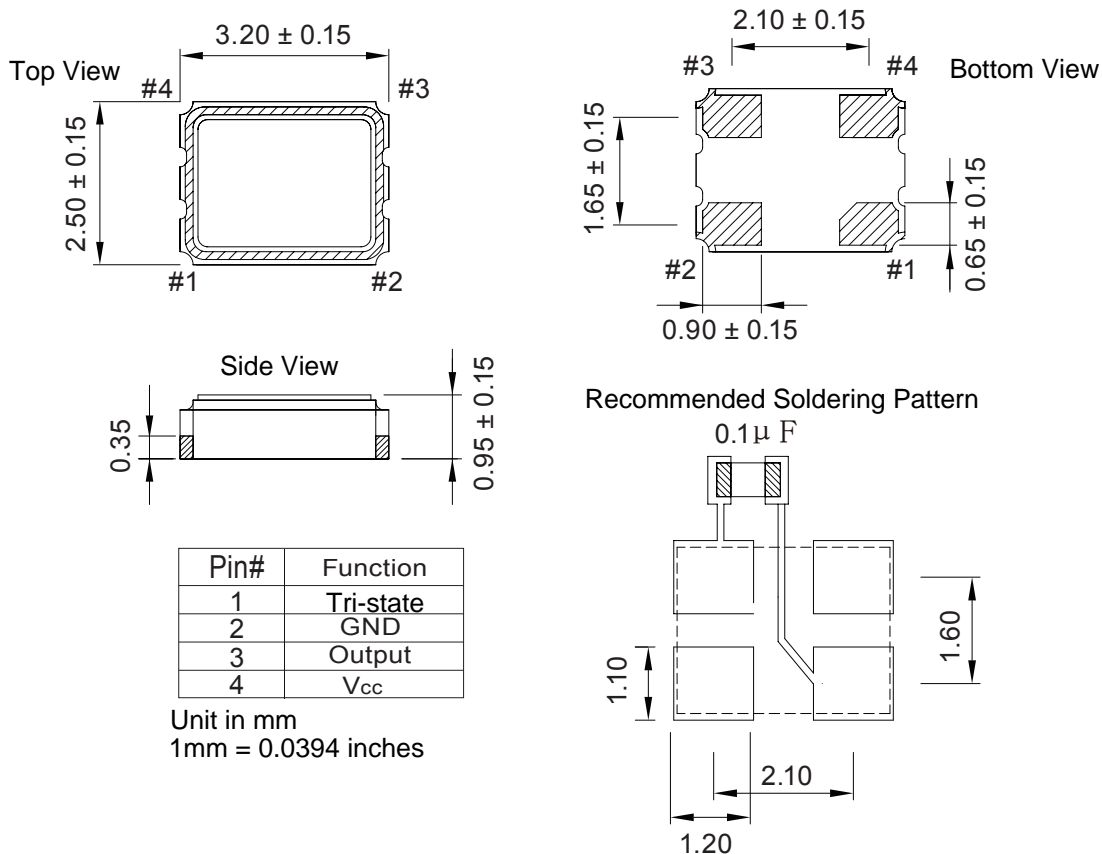
- IoT
- Smartphone
- Digital Camera
- Game Console
- Wearable Device
- Digital Consumer Electronics

Description

XO3225BM01-LP-10MHz-121 is the low power crystal oscillator. It has a maximum current consumption less than 1.5mA. It can be widely used in the low power consumption applications.

Mechanical Drawing & Pin Connections

Drawing No: MD220023-1



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1uF as close to the part as possible between Vcc and GND PAD



Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|---------------------------------|-----------------|---|---------------------|------|---------------------|------|------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | f ₀ | | | 10 | | MHz | |
| RF Output | | | | | | | |
| Output Waveform | | | CMOS | | | | |
| Output level | | High | 2.97 | | | V | |
| | | Low | | | 0.33 | V | |
| Load | | | | 15 | | pF | |
| Duty Cycle | | | 45 | | 55 | % | |
| Rise & Fall Time | | measured between 10% and 90% of V _{cc} , with an output load of 15pF | | | 4 | ns | |
| Tri-State (Input to Pin1) | | Enable (High voltage or floating) | 0.7 V _{cc} | | | V | |
| | | Disable (Low voltage or GND) | | | 0.3 V _{cc} | V | |
| Startup Time | | | | | 4 | ms | |
| Power Supply | | | | | | | |
| Voltage | V _{cc} | ±5% | | 0.9 | | V | |
| Current | | At 15pF load | | | 1.5 | mA | |
| | | No load condition | | | 0.9 | mA | |
| Stand by Current | | | | | 100 | uA | |
| Frequency Stability | | | | | | | |
| Versus Temperature | | @-10°C to +60°C | | | ±50 | ppm | |
| Period jitter (Pk-Pk) | | | | | 40 | ps | |
| RMS phase jitter | | Integrated 12KHz to 20MHz | | | 1 | ps | |
| Aging@+25°C | | 1 st year | | | ±3.0 | ppm | |
| Environmental Conditions | | | | | | | |
| Operating temperature range | | -10°C to +60°C | | | | | |
| Storage temperature range | | -55°C to +125°C | | | | | |