



Features and Benefits

Frequency from 32.768 KHz up to 133 MHz
Miniature package: 3.2 x 2.5 x 1.2 mm
High shock and vibration resistant

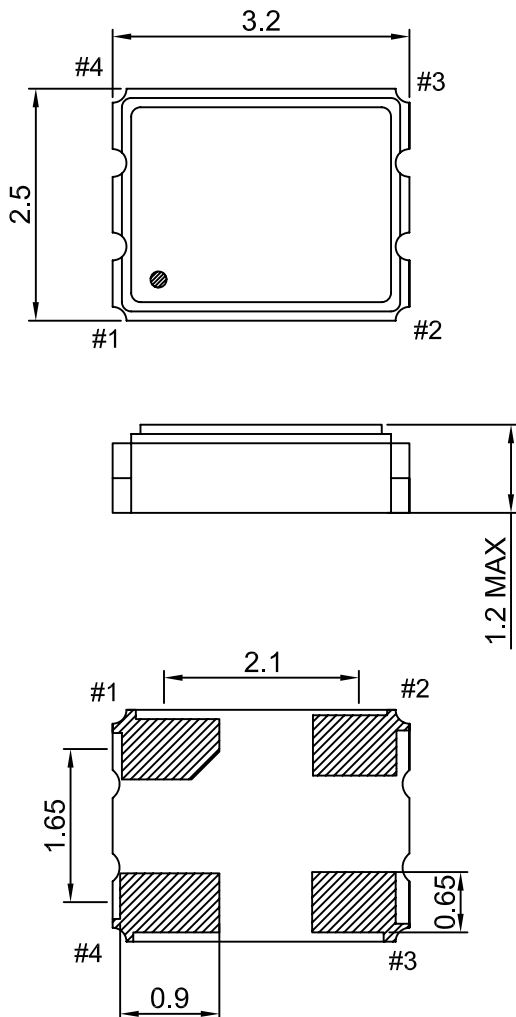
Typical Applications

Telecommunications
Wireless communications

Description

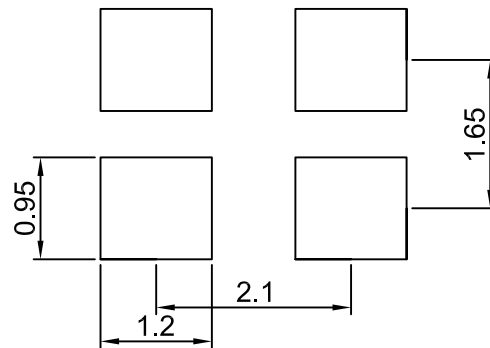
XO3225ZH offers wide frequency range, operating temperature and frequency stability options, along with resistant to high shock and vibration, all in a miniature package, ideal for various telecommunication and wireless communication applications.

Mechanical Drawing & Pin Connections



Drawing No: MD160027-2

Solder Pattern



Do not design any conductive path between the pattern

Pin Connection

| Pin | Function |
|-----|-----------|
| #1 | Tri-State |
| #2 | GND |
| #3 | Output |
| #4 | Vdc |

Unit in mm
1mm = 0.039 inches



Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|---|--|--|--|------|------|------|------|
| | | | Min. | Typ. | Max. | | |
| Frequency Range | F | | 32.768 KHz to 133 MHz | | | | |
| Standard Frequencies | | | 32.768 KHz, 2.0, 4.0, 12.0, 16.0, 20.0 24.0, 32.0, 75.0, 125.0 | | | MHz | |
| Output Waveform | | | CMOS | | | | |
| Output Level | | | $V_{OH} \geq 0.9V_{cc}$ $V_{OL} \leq 0.1V_{cc}$ | | | Vdc | |
| Output Load | | | 15 | | | pF | |
| Symmetry | | @ 1/2Vdc | 45 | | 55 | % | |
| Rise / Fall Time | | | 3 ~ 5 | | | ns | |
| Tri-state function | | Pin #3 → signal Pin #3 → high impedance | Pin #1 = high or open Pin #1 = low | | | | |
| Power Supply | | | | | | | |
| Voltage | V _{cc} | ±5% | | +3.3 | | V | |
| Supply Current | | | | <25 | | mA | |
| Frequency Stability | | | | | | | |
| Frequency Stability vs. Temperature Tolerance Aging Supply and Load Variation | | | ±10 | | ±50 | ppm | |
| Environmental Conditions | | | | | | | |
| Operating temperature range | -20°C to +70°C for commercial applications -40°C to +85°C for industrial applications | | | | | | |
| Storage temperature range | -55°C to +125°C | | | | | | |

Ordering Options: Operating Temperature and Frequency Stability

| Operating Temperature (w) | | Frequency Stability (z) | |
|---------------------------|------------|-------------------------|-----------------|
| Code | T (°C) | Code | Stability [ppm] |
| 1 | -20 to +70 | 1 | ±20 |
| 2 | -40 to +85 | 2 | ±50 |

Ordering Codes

| Model | Frequency in MHz (up to 4 digits) | Operating Temperature | Frequency Stability |
|----------|-----------------------------------|-----------------------|---------------------|
| XO3225Z3 | xx.yyyy | w | Z |

Example:XO3225Z3-125.0000-2-2 has the following specifications

Operating Frequency = 125.0000 MHz
 Operating Temperature = -40°C to +85°C
 Frequency Stability = ±50 ppm

Example for IR reflow soldering temperature

