



Features and Benefits

Frequency range: 10-52MHz
Supply voltage: 1.8V/2.5V/3.3V
Steady current: 1.5-2.0mA Max
Output waveform: Clipped Sinewave
Frequency stability vs. operating temperature: ± 2.0 ppm
Aging: ± 1.0 ppm per year
Phase noise@1KHz: -135dBc/Hz
Operating temperature: -30°C to +85°C
Size: 2.0x1.6x0.7mm

Typical Applications

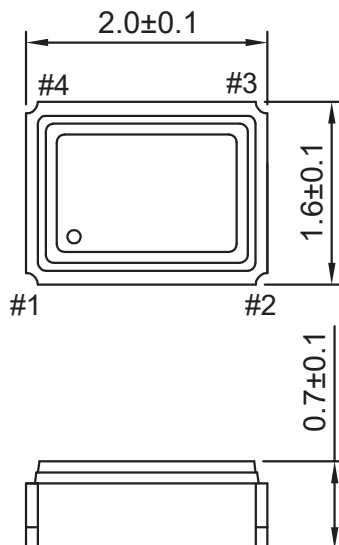
Indoor Positioning System

Description

TCXO2016AT offers wide temperature operation from -30°C to +85°C with outstanding frequency stability and low phase noise performance.

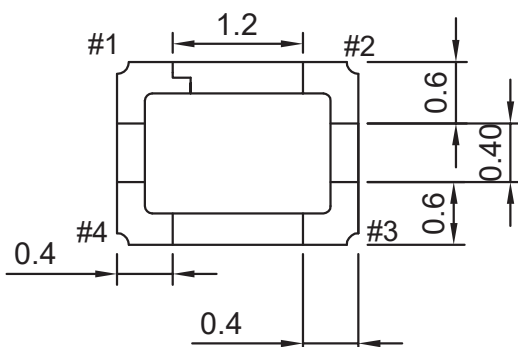
Mechanical Drawing & Pin Connections

Drawing No: MD220042-1

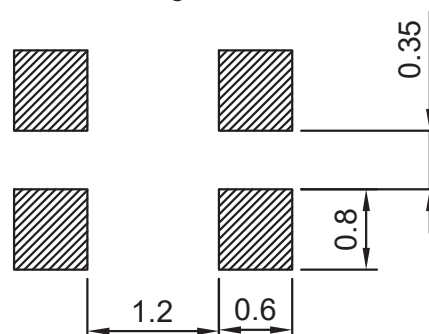


| PIN | Function |
|-----|--------------------------------|
| #1 | TCXO: GND VC-TCXO: Vcontrol |
| #2 | GND |
| #3 | Output |
| #4 | Vcc |

Unit in mm
1mm = 0.0394 inches



Soldering Pattern





Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|--|------------------|------------------|------------------|------|------|--------|------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | F _{nom} | | 10 | | 52 | MHz | |
| RF Output | | | | | | | |
| Signal Waveform | | | Clipped sinewave | | | | |
| Output Level | | | 0.8 | | | Vp-p | |
| Output Load | | | 10Kohm//10pF | | | | |
| Power Supply | | | | | | | |
| Supply Voltage | Vcc | | 1.8, 2.5, 3.3 | | | V | |
| Current Consumption | | 10MHz-29.99MHz | | | 1.5 | mA | |
| | | 30MHz-39.99MHz | | | 1.7 | mA | |
| | | 40MHz-52.00MHz | | | 2.0 | mA | |
| Frequency Adjustment Range | | | | | | | |
| Absolute Pulling Range (APR) | | Vcc=1.8V | ±8 | | ±13 | ppm | |
| | | Vcc=2.5V or 3.3V | ±9 | | ±15 | ppm | |
| Control Voltage | Vc | Vcc=1.8V | 0.1 | 0.9 | 1.7 | V | |
| | | Vcc=2.5V or 3.3V | 0.5Vcc ± 1V | | | V | |
| Frequency Stability | | | | | | | |
| Frequency stability vs. temperature | | | | | ±2.0 | ppm | |
| Frequency stability vs. voltage change | | | | | ±0.2 | ppm | |
| Frequency stability vs. load change | | | | | ±0.2 | ppm | |
| Frequency Tolerance | | at 25°C | | | ±1.5 | ppm | |
| Aging 1 st Year | | | | | ±1.0 | ppm | |
| Phase Noise | | 1kHz | | -135 | | dBc/Hz | |
| Environmental,Mechanical Conditions | | | | | | | |
| Operating temperature range | -30°C to +85°C | | | | | | |
| Storage temperature range | -40°C to +85°C | | | | | | |