



Features and Benefits

Frequency range: 40-150MHz
Supply voltage: 3.3V
Steady current: 35mA Max
Output waveform: CMOS
Holdover: ± 0.32 PPM
Phase noise@10KHz: -148dBc/Hz
Operating temperature: -40°C to +85°C
Size: 14.5x9.6x6.5mm

Typical Applications

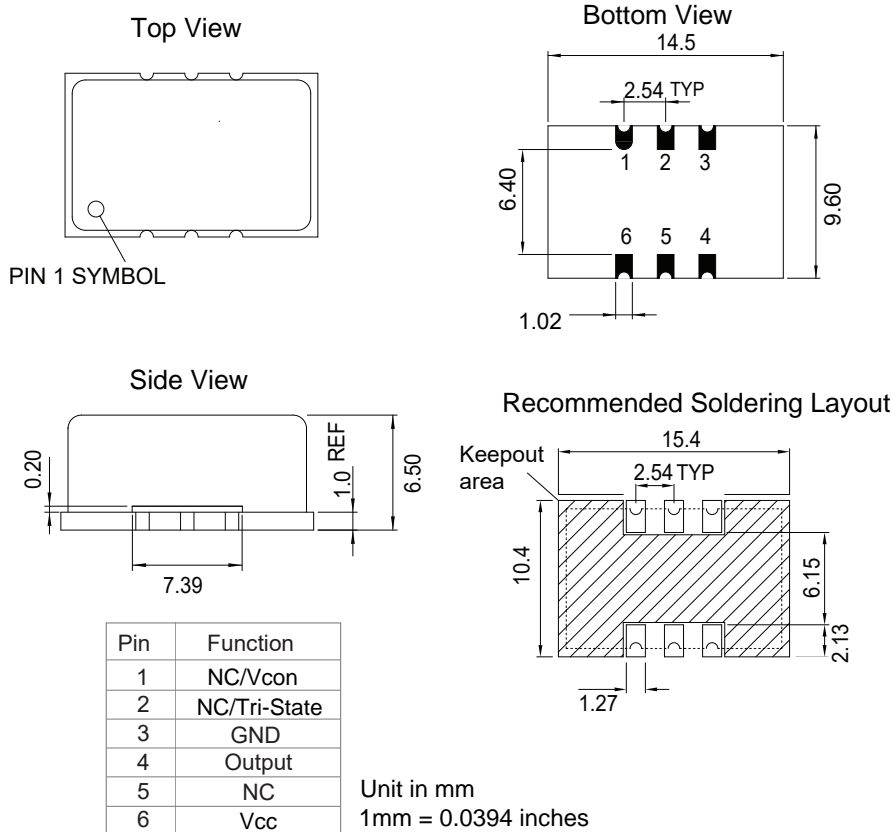
Time Synchronization
Microwave Communication
Test & Measurement
Telecom Systems
Satellite Communication

Description

TCXO914BM-STR3 is the high stability stratum3 TCXO. The Holdover can be less than ± 0.32 PPM. It can be widely used in the portable communication devise.

Mechanical Drawing & Pin Connections

Drawing No: MD220035-1





Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|---------------------------------|-----------------|--|-------|------|-------|--------|-------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | f ₀ | Standard Frequency: 50M, 92.16M, 98.304M, 100M, 120MHz | 40 | | 150 | MHz | |
| RF Output | | | | | | | |
| Output Waveform | | | CMOS | | | | |
| Load | | | | 15 | | pF | |
| Output Level High | | | 2.97 | | | V | |
| Output Level Low | | | | | 0.33 | V | |
| Duty Cycle | | | 45 | | 55 | % | |
| Rise/Fall Time | | | | | 3 | nSec | |
| Power Supply | | | | | | | |
| Voltage | V _{cc} | | | 3.3 | | V | |
| Current | | At maximum supply voltage | | | 35 | mA | |
| Frequency Stability | | | | | | | |
| Overall | | | | | ±4.6 | ppm | Note1 |
| Holdover | | Over 24 Hours | | | ±0.32 | ppm | |
| Initial Tolerance | | At 25°C | | | ±1.0 | ppm | |
| Phase Noise | | @10Hz | | | -87 | dBc/Hz | |
| | | @100Hz | | | -117 | | |
| | | @1KHz | | | -141 | | |
| | | @10KHz | | | -148 | | |
| | | @100KHz | | | -155 | | |
| | | @1MHz | | | -160 | | |
| Environmental Conditions | | | | | | | |
| Operating temperature range | | -40°C to +85°C | | | | | |
| Storage temperature range | | -40°C to +105 °C | | | | | |
| Vibration Test | | MIL-STD-883 2007 Condition A, JESD22-B103 Condition 1. 10~2000Hz, 1.52mm, 20G, each axis for 4hrs | | | | | |
| Thermal Shock | | MIL-STD-883 1010 Condition B, JESD22-A104 Condition B. -55°C, 125°C; soak time is 10 mins, with total 200 cycles | | | | | |
| Mechanical Shock | | MIL-STD-883 2002 Condition B, JESD22-B104 Condition B. 1500G, half-sine, 0.5ms, each axis for 3 times | | | | | |

Note1: Frequency stability includes frequency tolerance@25°C and frequency stability vs. operating temperature range and voltage variance and 20 years aging.