Features and Benefits

30.72MHz Frequency 3.3V Supply voltage CMOS Output waveform ±0.5ppm Stability Vs -40°C to +85°C 7x5x2.5mm Size

Typical Applications

SATCOM System Cellular Base Stations Radar Applications

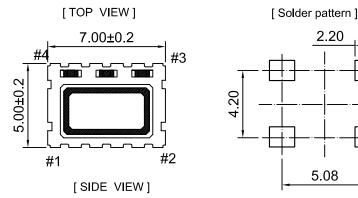
Description

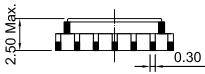
TCXO7500BL-30.72MHz-A is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

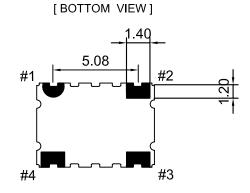
Mechanical Drawing & Pin Connections

Drawing No:

MD190015-1







| PIN | FUNCTION | | | |
|-----|----------------|--|--|--|
| #1 | N.C. | | | |
| #2 | GND | | | |
| #3 | Output | | | |
| #4 | Supply Voltage | | | |

Unit in mm 1mm = 0.0394 inches

TCXO7500BL-30.72MHz-A

Ultra Small SMD seam sealed TCXO

Specifications

| Oscillator Specification | Sym | Condition | Min. | Value Typ. | Max. | Unit | Note | |
|-----------------------------|------------------|--|-----------------------|---------------|--------------------|---------|------|--|
| Operational Frequency | F _{nom} | | IVIIII. | 30.72 | IVIAX. | MHz | | |
| RF Output | i nom | | | 00.12 | | 1711 12 | | |
| Signal Waveform | | | | CN | MOS | | | |
| Load | R _L | | 15pf | | | | | |
| H-Level Voltage | V _H | | 90%V _{cc} | | | V | | |
| L- Level Voltage | V _I | | - 00 | | 10%V _{cc} | V | | |
| Output Format | _ | | DC block , AC coupled | | | | | |
| Duty Cycle | | | | 50 | | % | | |
| Rise and fall time | | | | | 10 | nS | | |
| Start up time | | | | | 10 | mS | | |
| Power Supply | | · | | | | | | |
| Supply Voltage | V _{cc} | ±5% | | 3.3 | | V | | |
| Current | | | | | 18 | mA | | |
| Frequency Stability | | | | | | | | |
| Versus Operating | | -40°C to +85°C | | | ±0.5 | nnm | | |
| Temperature Range | | -40 C to +65 C | | | ±0.5 | ppm | | |
| Nominal Frequency | | 25°C±2°C | | | ±2.0 | ppm | | |
| Tolerance | | | | | | | | |
| Versus supply voltage | | ±5% change | | | ±0.3 | ppm | | |
| Versus load voltage | | ±10% change | | | ±0.3 | ppm | | |
| Versus Reflow | | 1 reflow and measured 24 hours afterwards | | | ±1.0 | ppm | | |
| Aging 1 st Year | | | | | ±1.0 | ppm | 25°C | |
| Phase Noise(@10MHz) | | 10Hz | | -80 | | dBc/Hz | | |
| | | 100Hz | | -110 | | dBc/Hz | | |
| | | 1KHz | | -132 | | dBc/Hz | | |
| | | 10KHz | | -135 | | dBc/Hz | | |
| | | 100KHz | | -140 | | dBc/Hz | | |
| Environmental, Mechanical | Condition | S | | | | | | |
| Operating temperature range | -40°C to +85°C | | | | | | | |
| Storage temperature range | -50°C to +100°C | | | | | | | |