



Features and Benefits

- 92.16MHz Frequency
- 12V Supply voltage
- Sinewave Output waveform
- ±100ppb Stability Vs -55°C --+70°C
- 25.8x25.8x12.7mm Size
- 135dBc/Hz @1KHz phase noise value

Typical Applications

- SATCOM System
- Cellular Base Stations
- Radar Applications

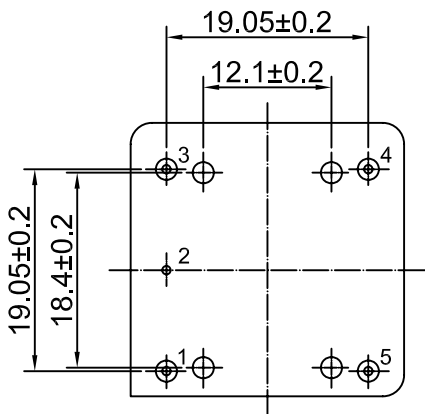
Description

OCXO2525L-92.16MHz-A-V are 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: MD1' 00&&-&

Bottom View

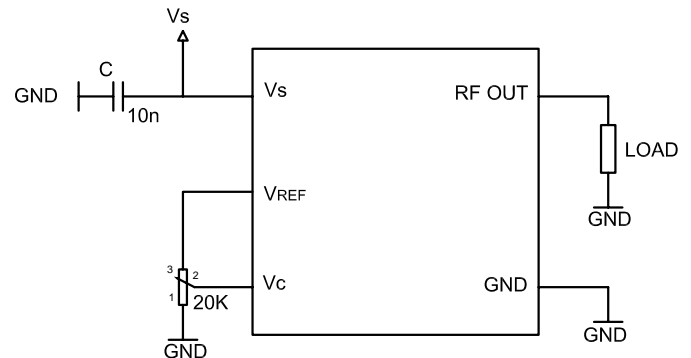
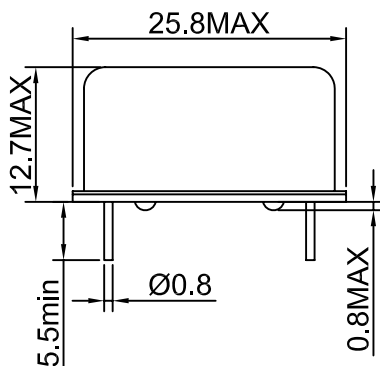


Pin Connections:

| PIN # | Symbol | CONNECTION |
|-------|--------|----------------------|
| 1 | RF OUT | RF Output |
| 2 | GND | Ground, case |
| 3 | Vc | Control Voltage(EFC) |
| 4 | VREF | Reference Voltage |
| 5 | Vs | Supply Voltage |

Unit in mm
 1mm = 0.0394 inches

Side View





Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|--|--------------------|--------------------------------------|----------------------|----------------------|------------------------|--|-----------------------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | F _{nom} | | | 92.16 | | MHz | |
| RF Output | | | | | | | |
| Signal Waveform | | | Sinewave | | | | |
| Load | R _L | ±5% | 50 | | | ohm | |
| Output Level | | | +7 | | | dBm | |
| Harmonics | | | | | -30 | dBc | |
| Spurious | | | | | -90 | dBc | |
| Power Supply | | | | | | | |
| Supply Voltage | V _s | | 11.4 | 12 | 12.6 | V | |
| Warm-up Time | T _{up} | @ +25 °C | | 3 | 5 | min | Δffinal/f0 < ±0.1 ppm |
| Current Consumption | | Steady state, +25°C | | | 150 | mA | |
| | | Warm-up | | | 350 | mA | |
| Frequency Adjustment Range | | | | | | | |
| Electronic Frequency Control (EFC) | | | ±0.8 | | | ppm | |
| EFC voltage | V _c | | 0 | V _{ref} /2 | V _{ref} | V | |
| Reference voltage V _{ref} output | | | | 10 | | V | |
| Input Impedance | | | 100 | | | kohm | |
| EFC Slope | | | | positive | | | |
| Frequency Stability | | | | | | | |
| Versus Operating Temperature Range | | -55°C to 70°C | | ±100 | | ppb | |
| Initial Tolerance @+25°C | | V _c @ V _{ref} /2 | | | ±300 | ppb | |
| Versus supply voltage | | ±5% change | | | ±10 | ppb | |
| Versus load | | ±5% change | | | ±5 | ppb | |
| Aging Per Day | | after 30 days operation | | | ±2 | ppb | |
| Aging 1 st Year | | | ±50 | ±200 | ppb | | |
| SSB Phase noise | | 100Hz | | | -110 | dBc | |
| | | 1kHz | | | -135 | dBc | |
| | | 10kHz | | | -140 | dBc | |
| Absolute Maximum Ratings | | | | | | | |
| Supply Voltage V _s | | V _s to GND | -0.5 | | V _s +10% | V | |
| Control Voltage V _c | | V _c to GND | -0.5 | | 15 | V | |
| Weight | 20g | | | | | | |
| Operating temperature range | -55°C to 70°C | | | | | | |
| Storage temperature range | -55°C to 125°C | | | | | | |
| Environmental Conditions | | | | | | | |
| Test | IEC 60068 Part ... | IEC 60679-1 Clause | MIL-STD- 202G Method | MIL-STD- 810F Method | MIL-PRF- 55310D Clause | Test conditions (IEC) | |
| Sealing tests | 2-17 | 5.6.2 | 112E | | 3.6.1.2 | Gross leak: Test Qc, Fine leak: Test Qk | |
| Solderability Resistance to soldering heat | 2-20 2-58 | 5.6.3 | 208H 210F | | 3.6.52 3.6.48 | Test Ta Method 1 Test Td1 Method 2 Test Td2 Method 2 | |
| Shock | 2-27 | 5.6.8 | 213B | 516.4 | 3.6.40 | Test Ea, 3 x per axes 100g, 6 ms half-sine pulse | |
| Vibration, sinusoidal | 2-6 | 5.6.7.1 | 201A 204D | 516.4-4 | 3.6.38.1 3.6.38.2 | Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g | |
| Vibration, random | 2-64 | 5.6.7.3 | 214A | 514.5 | 3.6.38.3 3.6.38.4 | Test Fdb | |
| Endurance tests - ageing - extended aging | | 5.7.1 5.7.2 | 108A | | 4.8.35 | 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C | |