

Features and Benefits

Stability less than ± 5 PPb over -40°C to 85°C

Voltage Control

24 hours HOLDOVER of ± 10 ppb over all conditions
(Stratum 3E Requirement)

Typical Applications

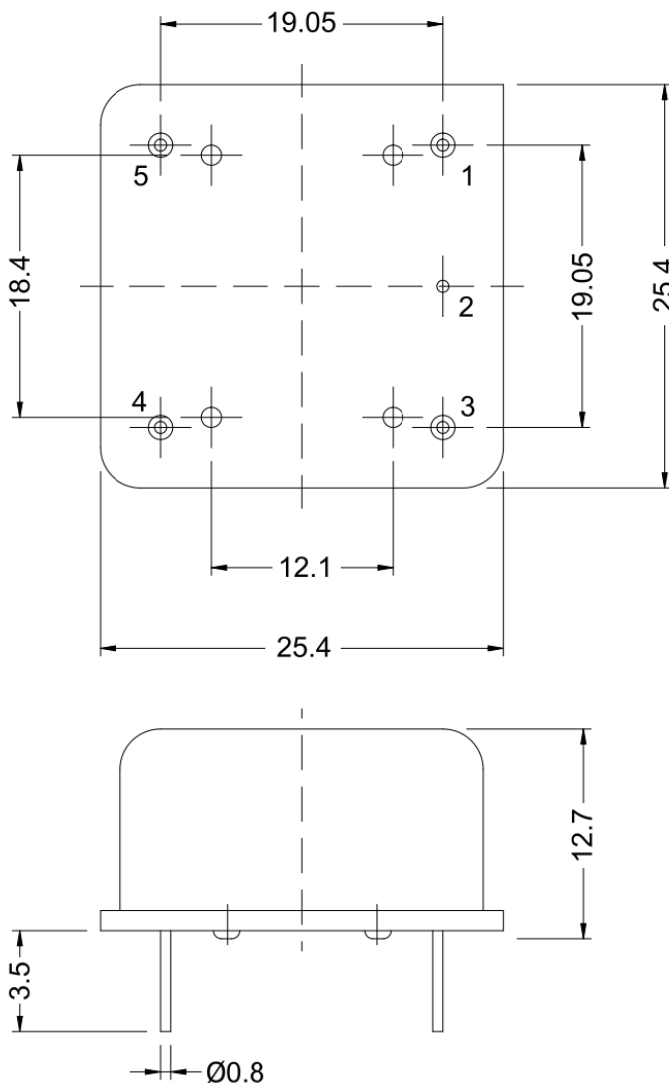
Test Instrumentation Reference
Telecommunications

Description

The OCXO2525TH-10Mhz-A-V is designed for GPS timing module. It can be met initial 24 Hours of Holdover as Stratum 3E requirement.

Mechanical Drawing & Pin Connections

Drawing No: MD140014-1



| PIN NO. | CONNECTION |
|---------|-----------------|
| 1 | RF OUTPUT |
| 2 | GROUND |
| 3 | CONTROL VOLTAGE |
| 4 | NOT CONNECTED |
| 5 | SUPPLY VOLTAGE |

MD140014-1
Unit = mm

Specifications

| Oscillator Specification | | Sym | Condition | Value | | | Unit | Note |
|---|------------------|------------------|-------------------------------------|--------|--------|--------|--------|--|
| | | | | Min. | Typ. | Max. | | |
| Nominal Frequency | | F _{nom} | | | 10.000 | | MHz | |
| COMS | Level | | | LVTTTL | | | | |
| | Load | | | 15 | | | pF | |
| | H –level voltage | | | +2.4 | | | V | |
| | L –level voltage | | | | | +0.4 | V | |
| | Duty cycle | | | 45 | 50 | 55 | % | @+1.65V _c |
| | Rise/Fall Time | | | | | 6 | ns | 10%-90% |
| Spurious | | | | | | -60 | dBc | |
| Power Supply | | | | | | | | |
| Voltage | | V _{cc} | | +3.135 | +3.3 | +3.465 | V | |
| Current Consumption | | | Warm-up, +25°C | | | 3.3 | W | @1000mA |
| | | | Steady-state, +25°C | | | 1.3 | W | @390mA |
| Electrical Frequency Adjust | | | | | | | | |
| Control voltage range | | V _c | | 0 | +1.65 | +3.3 | V | Initial at +1.65 if not connect of V _c |
| Pulling range | | | | -0.5 | | +0.5 | ppm | Positive Slope +/-10% linearity |
| Input Impedance | | | | 100K | | | ohm | |
| Frequency Stability | | | | | | | | |
| Frequency Tolerance | | | | -0.1 | | +0.1 | ppm | 1. @25°C+/-1°C 2. After turn on 15 minutes 3. Less than 90 days following DC |
| Versus temperature | | | -40°C to 85°C | -5 | | +5 | ppb | Refer to 25°C |
| Versus 5% change in supply voltage | | | | -0.5 | | +0.5 | ppb | |
| Versus 5% change in load | | | | -0.5 | | +0.5 | ppb | |
| Daily Aging | | | | -0.5 | | +0.5 | ppb | After 30 days |
| Yearly Aging | | | | -50 | | +50 | ppb | |
| 10 years | | | | -0.3 | | +0.3 | ppm | |
| SSB Phase Noise | | | | | | | | |
| Phase noise (typ.) @10 MHz Sinewave output | | | 1Hz | | -95 | -90 | dBc/Hz | |
| | | | 10 Hz | | -125 | -120 | | |
| | | | 100 Hz | | -140 | -135 | | |
| | | | 1 KHz | | -148 | -145 | | |
| | | | 10 KHz | | -156 | -155 | | |
| | | | 100 KHz | | -158 | -155 | | |
| Allan Deviation | | | 1s | | | 5 | E-11 | |
| Environmental Conditions | | | | | | | | |
| Operating temperature range | | | -40°C to 85°C | | | | | |
| Storage temperature range | | | -55°C to 105°C | | | | | |
| Vibration | | | MIL-STD-202, Method 201 | | | | | |
| Shock | | | MIL-STD-202, Method 213 Condition J | | | | | |
| Humidity | | | MIL-STD-202 Method 103 Condition A | | | | | |