



### Features and Benefits

- 122.88MHz Frequency
- 12V Supply voltage
- Sinewave Output
- ±100 ppb Stability Vs -30°C ---+70°C
- 25.8x25.8x12mm Size
- 150dBc/Hz @1KHz phase noise value

### Typical Applications

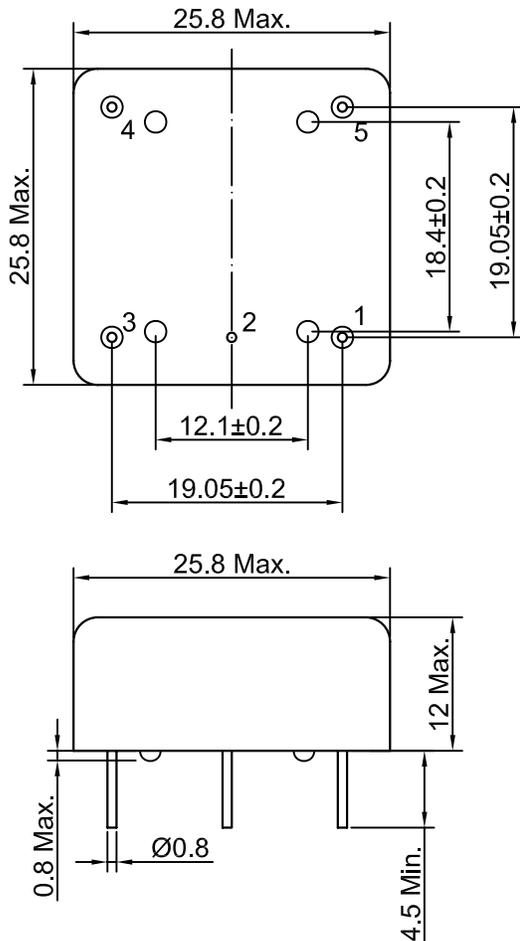
- SATCOM System
- Cellular Base Stations
- Radar Applications

### Description

OCXO2525AR-122.88MHz-A-V 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:** MD150013-6



#### Pin Connection

| Pin# | Function        |
|------|-----------------|
| #1   | RF Output       |
| #2   | GND             |
| #3   | Control Voltage |
| #4   | Vref            |
| #5   | Supply Voltage  |

Unit in mm  
1mm = 0.0394 inches



**Specifications**

| Oscillator Specification                    | Sym       | Condition    | Value          |           |       | Unit   | Note |
|---|-----------|--------------|----------------|-----------|-------|--------|------|
|   |           |              | Min.           | Typ.      | Max.  |        |      |
| Operational Frequency                       | $F_{nom}$ |              |                | 122.88    |       | MHz    |      |
| <b>RF Output</b>                            |           |              |                |           |       |        |      |
| Signal Waveform                             |           |              | Sinewave       |           |       |        |      |
| Load  | $R_L$     |              | 50             |           |       | ohm    |      |
| Output Power                                |           |              | $\bar{A}€$     |           |       | dBm    |      |
| Harmonic                                    |           |              |                |           | -30   | dBc    |      |
| <b>Power Supply</b>                         |           |              |                |           |       |        |      |
| Supply Voltage                              | $V_s$     |              | 11.75          | 12        | 12.25 | V      |      |
| Warm-up Time                                |           |              | 3              |           |       | min    |      |
| Power Consumption                           |           | Steady state |                |           | 150   | mA     |      |
|   |           | Warm-up      |                |           | 400   | mA     |      |
| <b>Frequency Adjustment Range</b>           |           |              |                |           |       |        |      |
| Reference Voltage Output                    | $V_s$     |              | 7.9            | 8         | 8.1   | V      |      |
| Tuning Voltage                              |           |              | 0              | 4         | 8     | V      |      |
| Tuning Range                                |           |              | -1             |           | +1    | ppm    |      |
| <b>Frequency Stability</b>                  |           |              |                |           |       |        |      |
| Versus Operating Temperature Range          |           |              |                | $\pm 100$ |       | ppb    |      |
| Initial Frequency Accuracy                  |           |              | -0.1           |           | +0.1  | ppm    |      |
| Versus Supply Voltage                       |           |              |                |           | 5     | ppb    |      |
| Versus Load                                 |           |              |                |           | 5     | ppb    |      |
| Aging Per Day                               |           |              |                |           | 5     | ppb    |      |
| Aging 1 <sup>st</sup> Year                  |           |              |                |           | 1000  | ppb    |      |
| Phase noise                                 |           | 10Hz         |                |           | -95   | dBc/Hz |      |
|   |           | 100Hz        |                |           | -120  | dBc/Hz |      |
|   |           | 1kHz         |                |           | -150  | dBc/Hz |      |
|   |           | 10kHz        |                |           | -155  | dBc/Hz |      |
| <b>Environmental, Mechanical Conditions</b> |           |              |                |           |       |        |      |
| Operating temperature range                 |           |              | -30°C to 70°C  |           |       |        |      |
| Storage temperature range                   |           |              | -55°C to 100°C |           |       |        |      |

