

## Dynamic Engineers Inc.

Website: <a href="www.DynamicEngineers.com">www.DynamicEngineers.com</a></a>
Email: <a href="mailto:lnquiry@DynamicEngineers.com">lnquiry@DynamicEngineers.com</a>

### C7 LC&) &) 5 A !% &A < n!B!J

25.8x25.8x12mm 192MHz OCXO\_Oven
Controlled Crystal Oscillator

#### Features and Benefits

Frequency range: 192MHz Supply voltage: 12V

Steady current: 150mA/Max Output waveform: Sinewave

Frequency stability vs. operating temperature: ±100ppb

Aging: 1000ppb per year

Phase noise@10KHz: -155dBc/Hz Operating temperature: -40°C to +85°C

Size: 25.8x25.8x12mm Package type: Through hole



#### **Typical Applications**

SATCOM System Cellular Base Stations Radar Applications

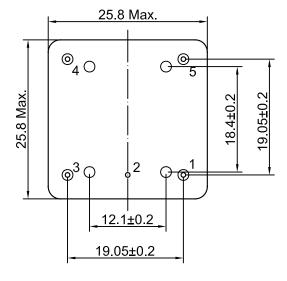
#### **Description**

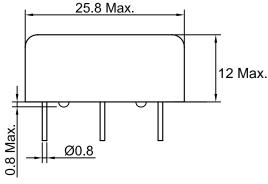
OCXO2525AM-192MHz-B-V is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

## **Mechanical Drawing & Pin Connections**

Drawing No:

MD&4008' -%





#### Pin Connection

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

Unit in mm 1mm = 0.0394 inches



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# **Specifications**

| Oscillator<br>Specification                 | Sym              | Condition    | Value |          |       | Unit   | Note |
|---|------------------|--------------|-------|----------|-------|--------|------|
|   |                  |              | Min.  | Тур.     | Max.  | Onit   | Note |
| Operational Frequency                       | F <sub>nom</sub> |              |       | 192      |       | MHz    |      |
| RF Output                                   |                  |              |       |          |       |        |      |
| Signal Waveform                             |                  |              |       | Sinewave |       |        |      |
| Load  | $R_L$            |              |       | 50       |       | ohm    |      |
| Output Power                                |                  |              | +5    |          | +10   | dBm    |      |
| Harmonic                                    |                  |              |       |          | -30   | dBc    |      |
| Power Supply                                |                  |              |       |          |       |        |      |
| Supply Voltage                              | V <sub>cc</sub>  |              | 11.75 | 12       | 12.25 | V      |      |
| Warm up time                                |                  |              | 3     |          |       | min    |      |
| Power Consumption                           |                  | Steady state |       |          | 150   | mA     |      |
|   |                  | Warm-up      |       |          | 400   | mA     |      |
| Frequency Adjustment Range                  |                  |              |       |          |       |        |      |
| Reference Voltage Output                    | $V_{ref}$        |              |       | 5        |       | V      |      |
| Tuning Voltage                              |                  |              | 0     | 2.5      | 5     | V      |      |
| Tuning Range                                |                  |              | -0.5  |          | +0.5  | ppm    |      |
| Frequency Stability                         |                  |              |       |          |       |        |      |
| Versus Operating Temperature Range          |                  |              |       | ±100     |       | ppb    |      |
| Initial Frequency Accuracy                  |                  | @+25°C       | -100  |          | +100  | ppb    |      |
| 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                 | -40°C to +       |              |       |          |       |        |      |
| Storage temperature range                   | -40°C to +       | 100°C        |       |          |       |        |      |