

# Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA TEL: 1-281-870-8822 EMAIL:Sales@DynamicEng.com

### **Features and Benefits**

Surface mount package 4 pad 7x5x1.8mm RoHS Compliant Lead Free construction

## **Typical Applications**

UHF Synthesizers SATCOM System Portable Microwave Applications

#### **Description**

TCXO7500AP-10MHz-A-V offers wide temperature operation from -40°C to +85°C with outstanding frequency stability.

## **Mechanical Drawing & Pin Connections**

Drawing No: A8% \$\$+\*!&

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Unit in mm 1mm = 0.0394 inches

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# **Specifications**

| Oscillator<br>Specification            |                     | Sym   | Condition                               | Value |                                 |      | Link | Noto |
|--|---------------------|---|---|-------|---------------------------------|------|------|------|
|  |                     |   |   | Min.  | Тур.                            | Max. | Unit | Note |
| Operational Frequency                  |                     | Fnom  |   |       | 10                              |      | MHz  |      |
|  | Output Level        |   |   | CMOS  |                                 |      |      |      |
| CMOS                                   | Output Load         |   | ±5%                                     |       | 15                              |      | pF   |      |
|  | Duty Cycle          |   | at 1/2VDD level                         | 40    |                                 | 60   | %    |      |
|  | Rise and fall times |   | 10% to 90%VDD max                       |       |                                 | 5    | nS   |      |
|  | "0" level(VOL)      |   |   |       | 10%VDD max                      |      |      |      |
|  | "1" level(VOH)      |   |   |       | 90%VDD min                      |      |      |      |
| Power Supply                           |                     |   |   |       |                                 |      |      |      |
| Input voltage                          |                     |   |   |       | +2.5V to<br>+3.3V<br>DC(VDD±5%) |      | V    |      |
| Current Consumption                    |                     |   |   |       |                                 | 8.5  | mA   |      |
| Start-up time                          |                     |   |   |       |                                 | 10   | mS   |      |
| Frequency Stability                    |                     |   |   |       |                                 |      |      |      |
| Tolerance                              |                     |   | @25°C                                   |       |                                 | ±1   | ppm  |      |
| Versus temp                            |                     |   | Referred to +25°C over -40°C<br>to 85°C |       | ±1.0                            |      | ppm  |      |
| Versus ±5% change in supply<br>voltage |                     |   |   |       | ±0.3                            |      | ppm  |      |
| Versus ±10% change in load             |                     |   | At CL=15pF ±10%                         |       | ±0.3                            |      | ppm  |      |
| First Year Aging                       |                     |   | @25°C                                   |       |                                 | ±1.0 | ppm  |      |
| Environmental Conditions               |                     |   |   |       |                                 |      |      |      |
| Storage temperature range              |                     | -40°C to 85°C   |   |       |                                 |      |      |      |
| Power supply voltage                   |                     | -0.6V to +4.6V  |   |       |                                 |      |      |      |
| Operating temperature                  |                     | -40°C to 85°C   |   |       |                                 |      |      |      |
| Reflow sold                            | ering condition     | +250°C $\pm$ 10°C for 10 seconds, +170°C $\pm$ 10°C for 1 to 2 minutes(pre-heating) |   |       |                                 |      |      |      |