

## **OCXO 107 SERIES**



The OCXO107 series oscillators are Isotemp's best offering for frequency stability in quartz crystal oscillators. Features include dual ovens to minimize frequency drifts due to temperature effects, an onboard voltage regulation system and a sixteen bit D/A converter for disciplining the output frequency. These oscillators compare favorably with rubidium standards in harsh environmental conditions.

| Specification Table  |   |
|--|---|
| Parameters   | OCXO 107-3  |
| Frequency  | 10.000000 MHz   |
| R.F. Output  | Sine Wave > +3 dBm into 50 ohms Harmonics < -30 dBc Sub-harmonics < -30 dBc   |
| (  | Change in Frequency Versus  |
| Temperature (Ambient)<br>( 0°C +60°C)<br>Referenced to +25°C                                     | < +/- 0.06 PPB  |
| Time* (Aging)<br>Daily<br>1st Year   | < +/- 0.2 PPB<br>< +/- 30 PPB   |
| Time (Warm-Up) Frequency at 25 minutes After power on @ +25°C Referenced to Frequency at 4 hours | < +/- 10 PPB  |
| Input Voltage<br>(+/- 5% change)   | < +/- 0.02 PPB  |
|  | Other Parameters  |
| Phase Noise @ 10 Hz  | -120 dBc  |
| Electrical Frequency<br>Adjustment Range**<br>By internal 16 bit DAC                             | > +/- 0.1 PPM<br>< +/- 0.2 PPM  |
| Input Power<br>Oscillator and DAC<br>DAC<br>Oven   | +12 VDC +/- 5% < 60 mA<br>-12 VDC +/- 5% < 10 mA<br>+12 VDC +/- 5% < 1.6 A @ turn on,<br>< 6 Watts Steady State @ +25°C |
| Package  | 4.00 x 2.72 x 2.35 inches (LxWxH)   |
| Units  | 1 PPM = $1x10^{-6}$ 1 PPB = $1x10^{-9}$   |

<sup>\*</sup> All aging stabilities are after storage of up to 1 year and apply after 30 days of continuous operation. The daily aging rate also applies at the time of shipment from factory.

Specifications subject to change with frequency.

## Available Frequency Range: 5 MHz to 50 MHz

Including 5.0, 10.0, 10.23, 10.24, 12.352, 15.36, 16.384, 19.44, and 19.6608 MHz

## AVAILABLE OPTIONS:

Square Wave Output, Low Phase Noise, Fast Warm-Up.

MAIL: P.O. Box 3389 Charlottesville, VA. 22902 PLANT: 1750 Broadway Street Charlottesville, VA. 22903 Telephone - 804-295-3101 FAX - 804-977-1849 Web - www.isotemp.com Email - info@isotemp.com

<sup>\*\*</sup> The Electrical Frequency Adjustment Range is sufficient for the life of the oscillator.