



# Model XO5083-113R

## Oven Controlled Crystal Oscillator

### RoHS Compliant

#### Electrical Specifications (typical)

**Nominal Frequency (Fo):** 10.0MHz

#### **Frequency Stability**

Over Temperature:  $\leq \pm 10$ ppb

Aging (after 30-days power on)

Daily Aging:  $\leq \pm 0.4$ ppb

Yearly Aging:  $\leq \pm 60$ ppb

20-years:  $\leq \pm 0.3$ ppm

STS (Root Allan Variance,  $\tau=1$ -sec):  $1 \times 10^{-11}$  typical

#### **Frequency Adjustment**

Method: External Voltage, 0V<sub>DC</sub> to +4.0V<sub>DC</sub>

Range:  $\pm 0.5$ ppm minimum

Linearity:  $< 10\%$

Slope: Positive

#### **Output (Sinewave)**

Level: +5dBm

Load: 50 $\Omega$   $\pm 10\%$

**Harmonics:**  $\leq -25$ dBc

**Vref :** 4.1V typical, 0.2mA max sourcing

#### **SSB Phase Noise (static conditions, typical)**

-120dBc/Hz @ 10Hz offset

-140dBc/Hz @ 100Hz offset

-145Bc/Hz @ 1kHz offset

-150dBc/Hz @ 10kHz offset

#### **Warm Up Time @ 25°C**

To within  $1 \times 10^{-7}$  of the frequency at 1-hour :  $< 3$ -min.

#### **Power**

Supply Voltage (V<sub>S</sub>): +5.0V<sub>DC</sub>,  $\pm 5\%$

Power Consumption @ 25°C Steady-State:  $< 1.5$ W

Power Consumption at Turn-on:  $< 4.0$ W

#### **Environmental**

Temperature Range

Operating: -30°C to +80°C

Storage: -60°C to +90°C

Humidity: Hermetically Sealed

Shock (survival): Per MIL-STD-202, 30g,  
half sine, 11msec

Vibration (survival): Per MIL-STD-202, 10g,  
Swept sine to 2000Hz

Soldering Conditions: 260°C for 10-sec.

