



# Model XO5183-XXX Oven Controlled Crystal Oscillator

## Electrical Specifications

**Nominal Frequency (F<sub>0</sub>):** 10.0 MHz  
(available from 10 MHz to 120 MHz)

**Frequency Stability (for 10 MHz)**

- vs. temperature, <math>\pm 10\text{ppb}</math>
- vs. Power Supply ( $\pm 5\%$ ), <math>\pm 2\text{ppb}</math>
- vs. Load ( $\pm 10\%$ ), <math>\pm 2\text{ppb}</math>
- vs. time after 30 days continuous operation
  - <math>\pm 1\text{ppb/day}</math>
  - <math>\pm 100\text{ppb}</math> first year
  - <math>\pm 500\text{ppb}</math> for 10 years

**Frequency Adjustment**

- Method, external voltage, 0V<sub>DC</sub> to +4V<sub>DC</sub>
- Range.: sufficient for > 10-years aging adjustment
- Modulation bandwidth, >1KHz
- Slope, Positive

**Output - Sinewave (HCMOS Available)**

- Level, > +3dBm
- Load, 50Ω,  $\pm 10\%$

**Harmonics:** <math>-30\text{dBc}</math>

**Warm Up Time @ 25°C**

To within 0.1ppm of final frequency, <math>< 2.0</math> minutes

**SSB Phase Noise (maximum for 10 MHz)**

- 90dBc/Hz @ 1Hz offset
- 120dBc/Hz @ 10Hz offset
- 140dBc/Hz @ 100Hz offset
- 150dBc/Hz @ 1kHz offset
- 150dBc/Hz @ 10kHz offset

**Oscillator Disable (TTL/CMOS Level Input)**

- LOW (or Floating),: Oscillator ENABLED
- HIGH, Oscillator DISABLED

**Oven Ready (Open Collector Output)**

- LOW, oven NOT ready (3mA sink, maximum)
- HIGH, oven ready

**Power Supply Voltage:** +5.0V<sub>DC</sub>  $\pm 5\%$

(available from +5V to +15V)

**Power Consumption**

- <math>< 4\text{W}</math> during warm up
- <math>< 1.25\text{W}</math> steady state at 25°C

**Operating Temperature Range:** 0°C to +70°C

(available from -40°C to 85°C)

