



Model XO5183-XXX Oven Controlled Crystal Oscillator

Electrical Specifications

Nominal Frequency (F_0): 10.0 MHz
(available from 10 MHz to 120 MHz)

Frequency Stability (for 10 MHz)

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

Frequency Adjustment

Method, external voltage, $0V_{DC}$ to $+4V_{DC}$
Range.: sufficient for > 10 -years aging adjustment
Modulation bandwidth, > 1 KHz
Slope, Positive

Output - Sinewave (HCMOS Available)

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

Harmonics: < -30 dBc

Warm Up Time @ 25°C

To within 0.1ppm of final frequency, < 2.0 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: $+5.0V_{DC} \pm 5\%$

(available from +5V to +15V)

Power Consumption

< 4 W during warm up
 < 1.25 W steady state at 25°C

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

(available from -40°C to 85°C)

