

Custom specification OXO214-1000-007

Optimised performance 10.00MHz DIL OCXO

temperature tolerance: $\pm 0.2\text{ppm}(-40 +70)^\circ\text{C}$

phase noise: $-150\text{dBc}/\text{Hz}$, $f_o +100\text{KHz}$

supply $+3.3\text{V d.c.}$

quiescent current: 250mA max.

RoHS compliant

Custom specification:

frequency: 10.000MHz
temperature tolerance: $\pm 0.2\text{ppm}(-40 +70)^\circ\text{C}$
output: CMOS 15pF, 45% ~ 55%
 $<2\text{ns max. rise and fall}$
supply voltage: $+3.3\text{Vd.c.}$

Generic specification:

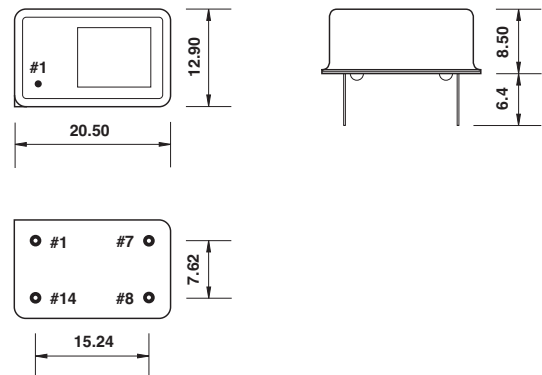
stability:
 against supply voltage change $\pm 0.02\text{ppm max. for } V_{cc} \pm 5\%$
 against load change $\pm 0.02\text{ppm max. for load } \pm 10\%$
 ageing short term $\pm 0.005\text{ppm max. per day after 30 days continuous operation}$
 ageing long term $\pm 1.0\text{ppm max. first year after 30 days continuous operation}$
 voltage trim V_t $\pm 10\text{ppm min. typical linearity } \pm 5\%$
 trim input impedance $100\text{K}\Omega \text{ min.}$

power supplies:
 supply voltage V_{cc} $+3.3\text{Vd.c.}$
 start up current $500\text{mA max. at } -40^\circ\text{C}$
 quiescent current $250\text{mA max. at } +70^\circ\text{C}$
 warm up time $5 \text{ minutes max. to within } 0.1\text{ppm of nominal}$
 insulation resistance $500\text{Meg}\Omega \text{ min., } 100\text{Vd.c.}$

phase noise:
 $-90\text{dBc}/\text{Hz}$, $f_o +10\text{Hz}$
 $-120\text{dBc}/\text{Hz}$, $f_o +100\text{Hz}$
 $-135\text{dBc}/\text{Hz}$, $f_o +1\text{kHz}$
 $-140\text{dBc}/\text{Hz}$, $f_o +10\text{kHz}$
 $-150\text{dBc}/\text{Hz}$, $f_o +100\text{kHz}$

temperature:
 operating range $(-40 +70)^\circ\text{C}$
 storage range $(-40 +125)^\circ\text{C}$

Dimensions(mm):

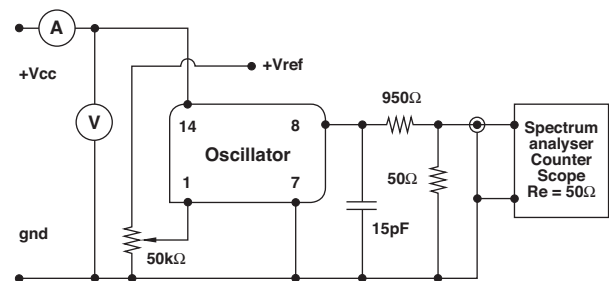


Pins viewed from bottom
pin diameter 0.45mm

Pin connections:

- # 1 trim
- # 7 ground/case
- # 8 output
- # 14 $+V_{cc}$

Test circuit, CMOS load:



test circuit includes a 20:1 step down into a matched 50Ω load

Environmental conditions:

- MIL standard 202F** method 213, condition J
 - MIL standard 202F** method 107, condition A
 - MIL standard 202F** method 204, condition B
- solderability** 5 seconds max. at $+230^\circ\text{C}$
 3 seconds max. at $+350^\circ\text{C}$

