

OCXO Model: OA265-8.5 series

Issue 2; 26th April 2022

Features

- Temperature stability to ± 50 ppb
- Low phase noise options
- Frequency range 10MHz
- Low pre-aged options available
- Industry standard package
- The flexible nature of the design means that variations to suit almost any application can be developed to meet individual customer requirements



Option A

- Temperature stability : ± 50 ppb over (0 to 50) $^{\circ}$ C
- Output: CMOS 15pF, 45% 55% or Sinewave 0dBm
- Voltage: 3.3V 5.0V 12.0V
- Warm up Current: 560mA 390mA 270mA
- Quiescent current: 320mA 170mA 120mA

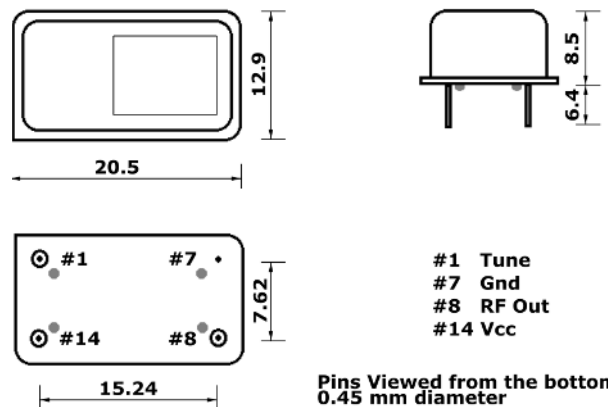
Option B

- Temperature stability: ± 75 ppb over (-20 to 70) $^{\circ}$ C
- Output: CMOS 15pF, 45% 55% or Sinewave 0dBm
- Voltage: 3.3V 5.0V 12.0V
- Warm up Current: 560mA 390mA 270mA
- Quiescent current: 320mA 170mA 120mA

Option C

- Temperature stability: ± 100 ppb over (-40 to 70) $^{\circ}$ C
- Output: CMOS 15pF, 45% 55% or Sinewave 0dBm
- Voltage: 3.3V 5.0V 12.0V
- Warm up Current: 560mA 390mA 270mA
- Quiescent current: 320mA 170mA 120mA

Dimensions (mm)



Phase Noise (typical)

- F_0+10 Hz -125 dBc/Hz
- F_0+100 Hz -145 dBc/Hz
- F_0+1 KHz -155 dBc/Hz
- F_0+10 KHz -160 dBc/Hz
- F_0+100 KHz -165 dBc/Hz

Voltage /Load change

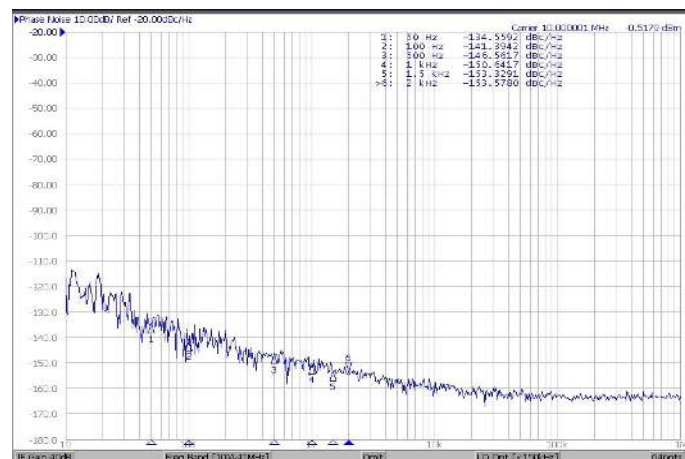
- $\pm 5\%$ supply voltage change: ± 2 ppb
- $\pm 10\%$ load change: ± 10 ppb

Ageing

Based on 10MHz unit after 30 days continuous operation:

- Per day: ± 25 ppb max.

Phase Noise Plot



- Per year: ± 1 ppm max.
- Warm up time: 2 minutes to within 0.1 ppm

Voltage Trim

- 0.5ppm minimum
- Trim impedance 50K Ω

Reference Options

- N/A

Environmental

- Electrostatic-Sensitive Device (ESD)
- Storage Temperature Range: (-40 to 125) $^{\circ}$ C
- Mechanical shock: MIL standard 202F, method 213, condition J
- Thermal shock: MIL standard 202F, method 107, condition A
- Vibration: MIL standard 202F, method 204, condition B
- Solderability: 5 seconds maximum at 230 $^{\circ}$ C
- 3 seconds maximum at 350 $^{\circ}$ C

Compliance

- RoHS Status (2011/65/EU) - Compliant
- REACH Status - Compliant

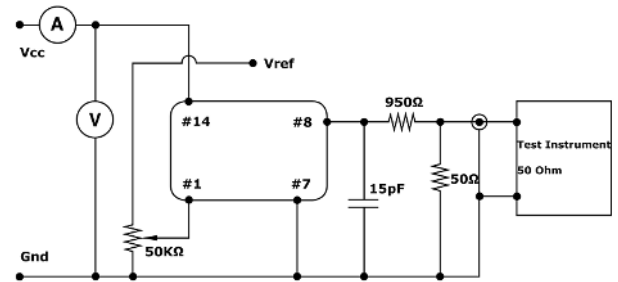
Packaging

- Pack Style: Bulk

Ordering Information

- Unique customer part number and custom specification issued with each application
- OCXO model: OA265-8.5
- Frequency: 10MHz
- Stability/Output/Voltage Option: A, B or C
- Supply voltage code: V1 = +3.3Vd.c. supply
- V2 = +5Vd.c. supply
- V3 = +12Vd.c. supply

Test Circuit - CMOS Load



Test Circuit - Sinewave

