

## OCXO Model: OA265-8.5 series

Issue 2; 26th April 2022

### Features

- Temperature stability to  $\pm 50$ 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 :  $\pm 50$ 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:  $\pm 75$ 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:  $\pm 100$ 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

### Phase Noise (typical)

- $F_{O_0}+10$ Hz            -125 dBc/Hz
- $F_{O_0}+100$ Hz           -145 dBc/Hz
- $F_{O_0}+1$ KHz            -155 dBc/Hz
- $F_{O_0}+10$ KHz          -160 dBc/Hz
- $F_{O_0}+100$ KHz        -165 dBc/Hz

### Voltage /Load change

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

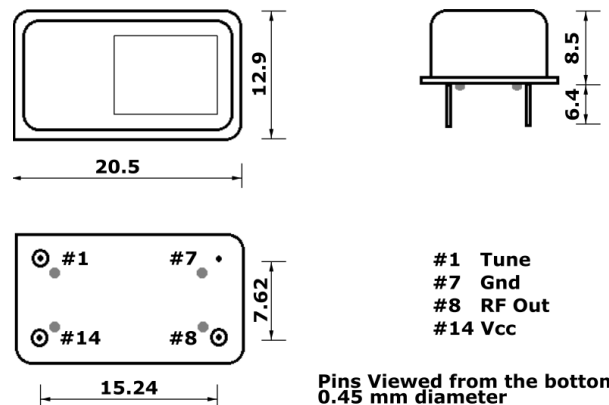
### Ageing

Based on 10MHz unit after 30 days continuous operation:

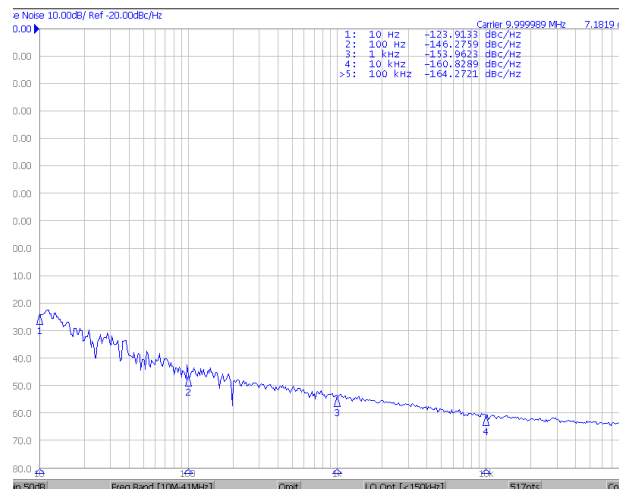
- Per day:  $\pm 25$ ppb max.



### Dimensions (mm)



### Phase Noise Plot



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

#### Voltage Trim

- 0.5ppm minimum
- Trim impedance 50K $\Omega$

#### 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

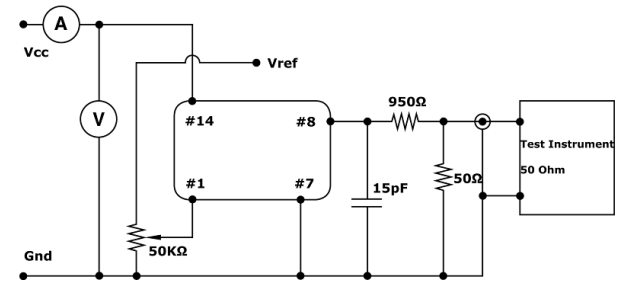
#### Packaging

- 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

