

## OCXO Model: OS400-2005-012

Issue 2; 12th May 2022

### Features

- Temperature stability to  $\pm 20$ ppb
- Low phase noise
- Frequency 20MHz
- 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 C

- Temperature stability:  $\pm 20$ ppb over  $(-40$  to  $+70)^{\circ}\text{C}$
- Output: Sinewave +7dBm
- Voltage: 3.3V
- Warm Up Current: 570mA
- Quiescent current: 220mA

### Phase Noise (typical)

- $F_{0}+10\text{Hz}$  -120 dBc/Hz
- $F_{0}+100\text{Hz}$  -145 dBc/Hz
- $F_{0}+1\text{KHz}$  -155 dBc/Hz
- $F_{0}+10\text{KHz}$  -165 dBc/Hz
- $F_{0}+100\text{KHz}$  -168 dBc/Hz

### Voltage / Load change

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

### Ageing

- Per day:  $\pm 0.15$ ppb max.
- Per year:  $\pm 60$ ppb max.
- Warm up time: 5 minutes to within 1 ppm

### Voltage Trim

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

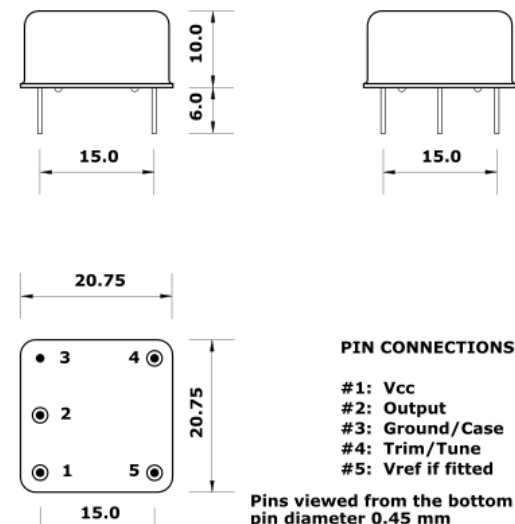
### Reference Options

- 3.0V for 3.3V supply

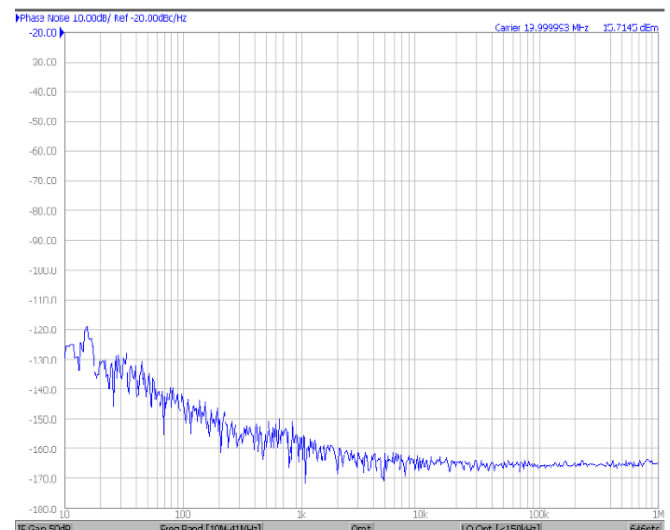
### Environmental

- Electrostatic-Sensitive Device (ESD)
- Storage Temperature Range:  $(-40$  to  $+125)^{\circ}\text{C}$
- 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

### Dimensions (mm)



### Phase Noise Plot



- Solderability: 5 seconds maximum at 230°C
- 3 seconds maximum at 350°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: OS400-2005-012
- Frequency: 20MHz
- Stability/Output/Voltage: Option C
- Supply voltage code: V1= +3.3Vd.c. supply
- Add suffix (R) for Vref output on pin #5

#### Test Circuit - Sinewave

