

OCXO Model: OS400-1005-020

Issue 2; 17th May 2022

Features

- Temperature stability to ± 20 ppb
- Low phase noise
- Frequency 10MHz
- 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: ± 20 ppb over (-40 to +70) $^{\circ}$ C
- Output: LVCMOS 15pF
- Duty cycle: 45% 55%
- Voltage: 5.0V
- Warm Up Current: 470mA
- Quiescent current: 220mA

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 -165 dBc/Hz
- $F_{O_0}+100$ KHz -168 dBc/Hz

Values based on a 10MHz unit

Voltage / Load change

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

Ageing

Bases on 10MHz unit after 30 days continuous operation:

- Per day: ± 0.7 ppb max.
- Per year: ± 200 ppb max.
- Warm up time: 5 minutes to within 1 ppm

Voltage Trim

- ± 0.5 ppm minimum
- Trim impedance 50K Ω

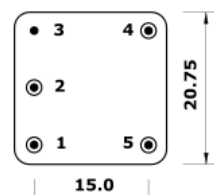
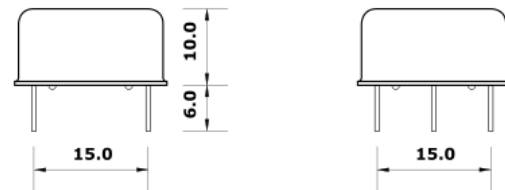
Reference Options

- 3.0V

Environmental

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

Dimensions (mm)

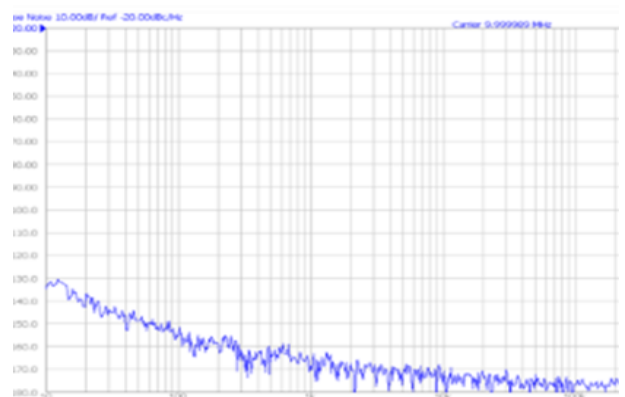


PIN CONNECTIONS

- #1: Vcc
- #2: Output
- #3: Ground/Case
- #4: Trim/Tune
- #5: Vref if fitted

Pins viewed from the bottom
pin diameter 0.45 mm

Phase Noise Plot



- 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°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: OS400-1005-020
- Frequency: 10MHz
- Stability/Output/Voltage: Option C
- Supply voltage code: V2 = +5.0Vd.c. supply
- Add suffix (R) for Vref output on pin #5

Test Circuit - Sinewave

