

OCXO Part No: OS560-2005-012

Issue 2; 6th May 2022

Features

- Temperature stability $\pm 5\text{ppb}$
- Low phase noise
- Frequency 20MHz
- Low pre-aged options available
- 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: $\pm 5\text{ppb}$ over (0 to $+50$) $^{\circ}\text{C}$
- Output: Sinewave 7dBm nominal
- Voltage: 5.0V
- Warm up current: 520mA
- Quiescent current: 220mA

Phase Noise (typical)

- $F_{0}+10\text{Hz}$ -128 dBc/Hz
- $F_{0}+100\text{Hz}$ -145 dBc/Hz
- $F_{0}+1\text{KHz}$ -155 dBc/Hz
- $F_{0}+10\text{KHz}$ -160 dBc/Hz
- $F_{0}+100\text{KHz}$ -168 dBc/Hz

Values based on 10MHz unit

Voltage / Load change

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

Ageing

After 30 days continuous operation:

- Per day: $\pm 0.1\text{ppb}$ max.
- Per year: $\pm 50\text{ppb}$ max.
- Warm up time: 5 minutes to within 0.1 ppm

Voltage Trim

- $\pm 0.5\text{ppm}$ minimum
- Trim impedance 50K Ω

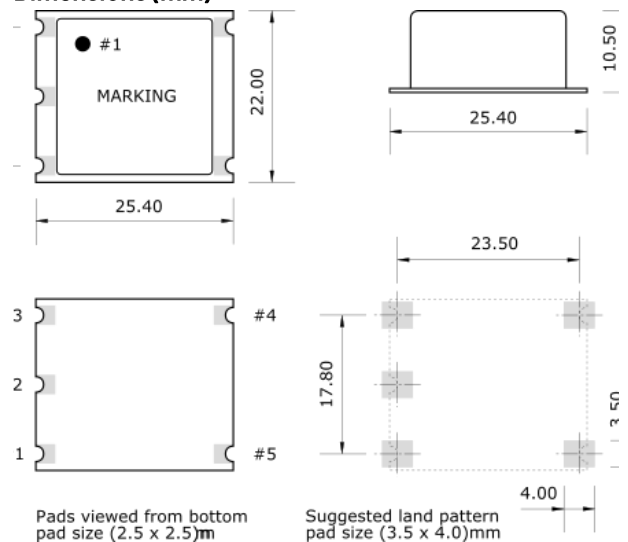
Reference Options

- 3.0V or 4.5V

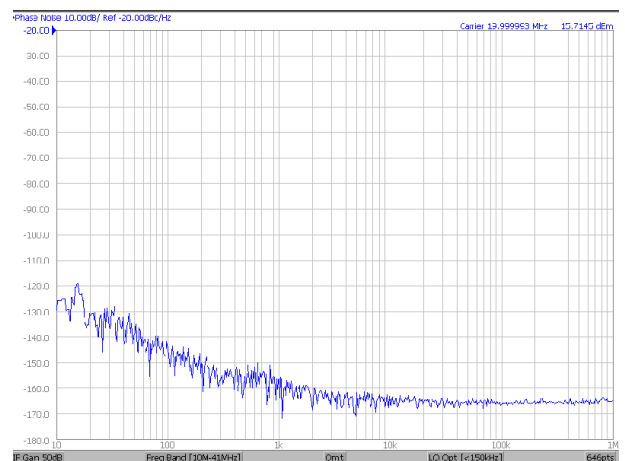
Environmental

- Electrostatic-Sensitive Device (ESD)
- Storage Temperature Range: (-40 to $+125$) $^{\circ}\text{C}$
- Mechanical shock: MIL standard 202F, method 213, condition J

Dimensions (mm)



Phase Noise Plot



- 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 Part No: OS560-2005-012
- Frequency: 20MHz
- Stability/Output/Voltage: Option A
- Supply voltage code: V2= +5.0Vd.c. supply
- Add suffix (R) for Vref output on pin #5

Test Circuit - Sinewave

