The IQOV-220 is a high stability Oven Controlled Crystal Oscillator OCXO in a hermetically sealed package with excellent phase noise and Allan Deviation.

**Frequency Parameters**
- Frequency: 10.0MHz
- Frequency Stability: ±0.50ppb
- Ageing (after 30 days of continuous operation): ±0.1ppb max per day, ±30ppb max per year
- Supply Voltage Variation (±10% change): ±1ppb max
- Short Term Stability (τ=1s): 0.5ppt

**Supply Voltage Variation**: ±1ppb max

**Electrical Parameters**
- Supply Voltage: 12.0V ±5%
- Power Consumption:
  - Warm Up: 5W max
  - Steady State (@ 25°C): 1.2W max
- Warm Up Time from 25°C: ±2ppb max after 10mins

**Frequency Adjustment**
- Pulling: ±0.4ppm min
- Control Voltage: 0 to 8V
- Input Impedance: 50kΩ min
- Slope: Positive
- Pulling: sufficient for 10 years ageing minimum

**Operating Temperature Ranges**
- -40 to 85°C

**Output Details**
- Output Compatibility: Sinewave
- Drive Capability: 50Ω
- Output Level: (AC coupled into 50Ω): +10dBm (±2dBm)

**Noise Parameters**
- Phase Noise (typ @ 25°C):
  - -118dBc/Hz @ 1Hz
  - -140dBc/Hz @ 10Hz
  - -152dBc/Hz @ 100Hz
  - -155dBc/Hz @ 1kHz
  - -160dBc/Hz @ 10kHz
  - -160dBc/Hz @ 100kHz
- Harmonic Distortion: -30dBc max
- Spurious: -80dBc max

**Environmental Parameters**
- Vibration: (IEC 60068-2-06, Test Fc, 10Hz-55Hz, 1.5mm displacement, 55Hz-500Hz 10G
- Shock: IEC 60068-2-27, Test Ea, acceleration of 50g peak amplitude for 11ms duration.
Manufacturing Details

- Soldering Guidelines:

The OCXO should be mounted on the circuit board after any cleaning & drying process. Hand soldering is recommended with a tip temperature of 370°C for 7 sec & 430°C for 5 seconds max.

Care must be taken to avoid any excessive bending or stress on the mounting pins. This can cause failure of the glass seals in the base.

This product is not suitable for immersion in cleaning fluids and should not undergo any ultrasonic cleaning process.

Ordering Information

- Storage Temperature: -55°C to 150°C

Compliance

- RoHS Status (2011/65/EU): Compliant
- REACh Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Bulk
- Pack Size: 1

Electrical Specification - maximum limiting values 12.0V ±5%

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<td>10.0MHz</td>
<td>-40 to 85°C ppb</td>
<td>±0.5 mA</td>
<td>-</td>
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