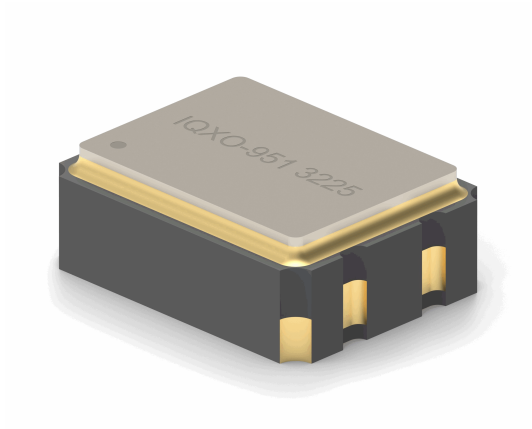
Crystal Clock Oscillator Specification

Part No. + Packaging: ***LFSPXO083820Reel***

Customer Part:

Description

- Simple package crystal oscillator (SPXO) in a seam sealed ceramic package with a metal lid and operates over a wide supply voltage range of 1.62V to 3.63V
  Wide operating temperature range (-40°C TO 125°C) for industrial applications, not for Automotive.
- Model IQXO-951 3225
- Model Issue number 1
- Note: Operating temperature range -40 to 125°C is intended for industrial use and not for safety critical applications such as automotive. Please contact IQD for alternative options.



Frequency Parameters

- Frequency 25.0MHz
- Frequency Stability ±25.00ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing ±3ppm max in 1st year @ 25°C
- Frequency Stability: inclusive of frequency tolerance at 25°C ±3°C and over the operating temperature range.

Electrical Parameters

- Current Draw (no load) 12.000mA
- Supply Voltage: 1.62V min to 3.63V max

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 6.0ns max
- Duty Cycle 45/55%

Output Control

- Standby Operation:
  Logic '1' (>70% VS) to pad 1 enables oscillator output
  Logic '0' (<30% VS) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
  No connection to pad 1 enables oscillator output.
- Start-up Time: 10ms max
  0.2ms typ to 90% of final amplitude (under ideal conditions @ 25°C)
- Standby Current: 20µA max, 1.5µA typ @ 25°C

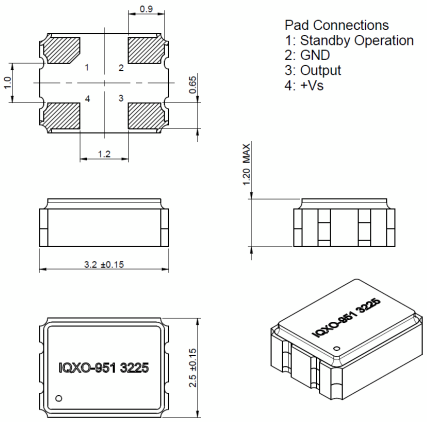
Output Levels

- Output Voltage Levels:
  Output High (VoH): Vs-0.4V min
  Output Low (VoL): 0.4V max

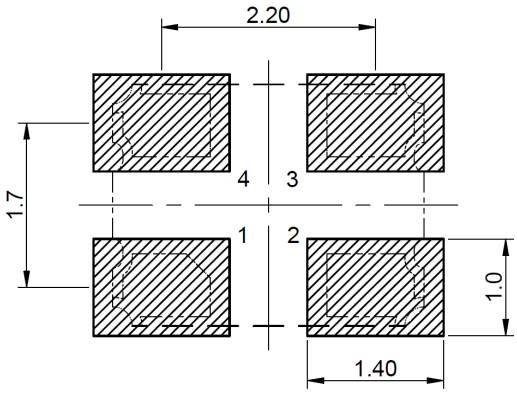
Noise Parameters

- RMS Phase Jitter (12kHz to 5MHz): 152fs typ @ 25MHz
- Phase Noise (typ @ 25MHz, 3.3V and @ 25°C):
  -73dBc/Hz @ 10Hz
  -107dBc/Hz @ 100Hz
  -138dBc/Hz @ 1kHz
  -156dBc/Hz @ 10kHz
  -162dBc/Hz @ 100kHz
  -162dBc/Hz @ 1MHz

Outline (mm)



Recommended Solder Pad Layout



Sales Office Contact Details:

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Customer Part:

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: 1500g, 0.5ms, 6 sides, impact each side 3 times.
- Vibration: 20Hz-2000Hz, 1.52mm peak amplitude, 20g acceleration in 3 mutually perpendicular planes, 20mins per axis (total 4hrs)

Manufacturing Details

- RoHS Terminations — Au
- RoHS Reflow Temp — 260°C max

Compliance

- RoHS Status (2015/863/EU) — Compliant
- REACh Status — Compliant
- MSL Rating (JDEC-STD-033): — 1

Packaging Details

- Pack Style: Reel — Tape and reel in accordance with EIA-481-D
  Pack Size: 3,000
- *Alternative packing option available*

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