



## Crystal Clock Oscillator Specification

*IQD Part No. + Packaging: LFSPXO083343Reel*

*Würth Part No. 830208334301*



### Description

- LVPECL output crystal oscillator using a high frequency fundamental crystal to give very low jitter. Hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-624
- Model Issue number 2

### Frequency Parameters

- Frequency 100.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $105.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year @  $25^\circ\text{C}$

### Electrical Parameters

- Supply Voltage  $3.3\text{V} \pm 5\%$
- Current Draw  $50.000\text{mA}$

### Output Details

- Output Compatibility LVPECL
- Rise and Fall Time  $0.5\text{ns}$  max
- Duty Cycle  $45/55\%$
- Output Voltage Levels:  
Output Low (VOL):  $1.680\text{V}$  max  
Output High (VOH):  $2.275\text{V}$  min

### Output Control

- Standby Operation:  
Logic '1' ( $70\% V_s$  min) to pad 1 enables oscillator output.  
Logic '0' ( $30\% V_s$  max) to pad 1 disables oscillator output.  
No connection to pad 1 enables oscillator output due to internal pull-up resistor.
- Standby Current:  $10\mu\text{A}$  max
- Start-up Time:  $10\text{ms}$  max

### Noise Parameters

- Phase Jitter (12kHz to 20MHz):  $1\text{ps}$  rms max  
Phase Jitter (12kHz to 20MHz):  $0.171\text{ps}$  rms typ @ 100MHz

### Environmental Parameters

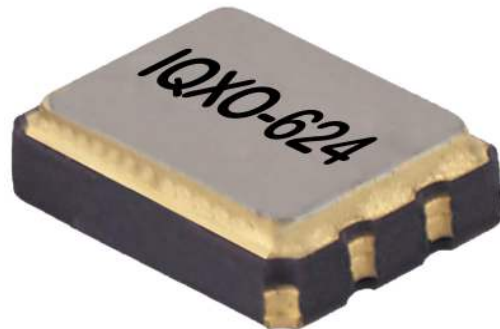
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock:  $1500\text{G}$ ,  $0.5\text{ms}$ , 3 times for each surface, total 18 times.
- Vibration: Freq. range:  $20\sim 2000\text{Hz}$ , peak to peak amplitude:  $1.52\text{mm}$ , peak acceleration:  $20\text{G}$  ( $196\text{m/s}^2$ ), 3 direction (X, Y, Z), each cycle:  $20\text{min}$ , 4 cycles for each direction.

### Manufacturing Details

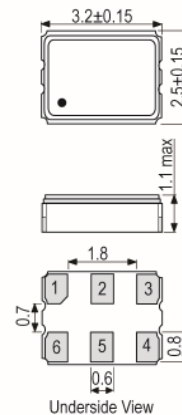
- RoHS Terminations Au over Ni
- RoHS Reflow Temp  $260^\circ\text{C}$  max for 10sec max

### Compliance

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



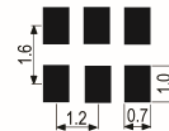
### Outline (mm)



### Pad Connections

- Standby Operation
- N/C
- GND
- Output +
- Output -
- +Vs

### Solder Pad Layout



### CONTACT INFORMATION:

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### Packaging Details

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

### USEFUL LINKS

**Toolbox:**

[www.we-online.com/toolbox](http://www.we-online.com/toolbox)

**Product Catalog:**

[www.we-online.com/products](http://www.we-online.com/products)

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