



## Crystal Clock Oscillator Specification

*IQD Part No. + Packaging: LFSPXO083326Reel*

*Würth Part No. 830208332601*



### 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-623
- Model Issue number 2
- Note: Operating temperature ranges -40 to 105°C and -40 to 125°C are intended for industrial use and not for safety critical applications such as automotive. Please contact IQD for alternative options.

### Frequency Parameters

- Frequency 125.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 105.00°C
- Ageing  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Supply Voltage 2.5V  $\pm 5\%$
- Current Draw 50.000mA

### Output Details

- Output Compatibility LVPECL
- Rise and Fall Time 0.5ns max
- Duty Cycle 45/55%
- Output Voltage Levels:  
Output Low (VOL): 1.095V max  
Output High (VOH): 1.475V min

### Output Control

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

### Noise Parameters

- Phase Jitter (12kHz to 20MHz): 1ps rms max  
Phase Jitter (12kHz to 20MHz): 0.171ps rms typ @ 100MHz

### Environmental Parameters

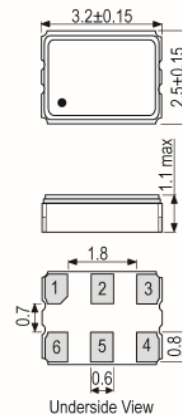
- Storage Temperature Range: -55 to 125°C
- Shock: 1500G, 0.5ms, 3 times for each surface, total 18 times.
- Vibration: Freq. range: 20~2000Hz, peak to peak amplitude: 1.52mm, peak acceleration: 20G (196m/s<sup>2</sup>), 3 direction (X, Y, Z), each cycle: 20min, 4 cycles for each direction.

### Manufacturing Details

- RoHS Terminations Au over Ni
- RoHS Reflow Temp 260°C max for 10sec max



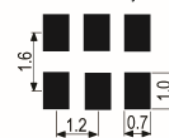
### Outline (mm)



### Pad Connections

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

### Solder Pad Layout



### CONTACT INFORMATION:

Würth Elektronik eiSos GmbH & Co. KG  
Max-Eyth-Str. 1, 74638 Waldenburg, Germany  
Tel: +49(0) 7942 945-0

Email: eiSos@we-online.de  
Web: www.we-online.com



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### Compliance

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

### 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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Tel: +49(0) 7942 945-0

Email: [eiSos@we-online.de](mailto:eiSos@we-online.de)  
Web: [www.we-online.com](http://www.we-online.com)