



## Crystal Clock Oscillator Specification

IQD Part No. + Packaging: LFSPXO052977RL3K

Würth Part No. 830205297709



### Description

- 32.768kHz output crystal oscillator in a ceramic package, hermetically sealed with a seam sealed metal lid. Suitable for real time clock applications.
- Model CFPS-102
- Model Issue number 4

### Frequency Parameters

- Frequency 32.7680kHz
- Frequency Stability  $\pm 25.00$ ppm
- Operating Temperature Range  $-40.00$  to  $85.00^{\circ}\text{C}$
- Ageing  $\pm 3$ ppm max per year

### Electrical Parameters

- Supply Voltage  $1.8\text{V} \pm 5\%$
- Current Draw  $1.500\text{mA}$

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $50.0\text{ns}$  max
- Duty Cycle  $40/60\%$

### 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:  $35\text{ms}$  max  
 $2\text{ms}$  typ to  $90\%$  of final amplitude (under ideal conditions @  $25^{\circ}\text{C}$ )
- Standby Current:  $20\mu\text{A}$  max,  $1.7\mu\text{A}$  typ @  $25^{\circ}\text{C}$

### Environmental Parameters

- Storage Temperature Range:  $-55$  to  $125^{\circ}\text{C}$
- Shock: MIL-STD-883F, Method 2002.4:  $1500\text{G}$ ,  $0.5\text{ms}$ , 3 times in each of 3 mutually perpendicular planes
- Vibration: MIL-STD-883F, Method 2007.3:  $20\text{G}$  ( $20\text{Hz}$ - $2000\text{Hz}$ ),  $1.52\text{mm}$  amplitude,  $20\text{mins}$  in 3 mutually perpendicular planes (total 4hrs)

### Compliance

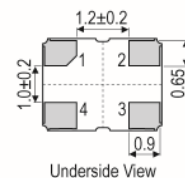
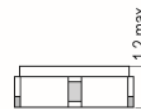
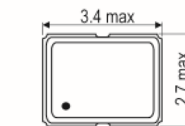
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: RL3K Tape & reel in accordance with EIA-481-D
- Pack Size: 3,000

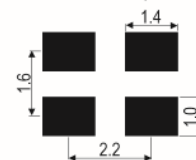


### Outline (mm)

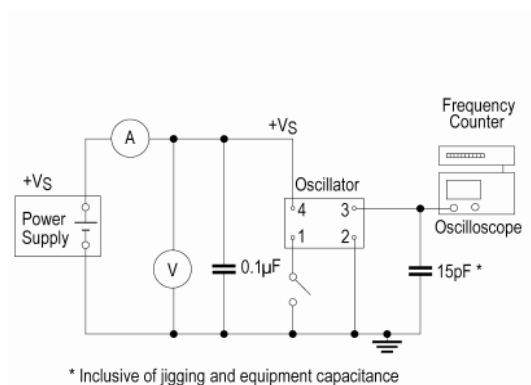


- Pad Connections
- Standby Operation
  - GND
  - Output
  - +Vs

### Solder Pad Layout



### Test Circuit



### CONTACT INFORMATION:

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- Alternative packing option available

### USEFUL LINKS

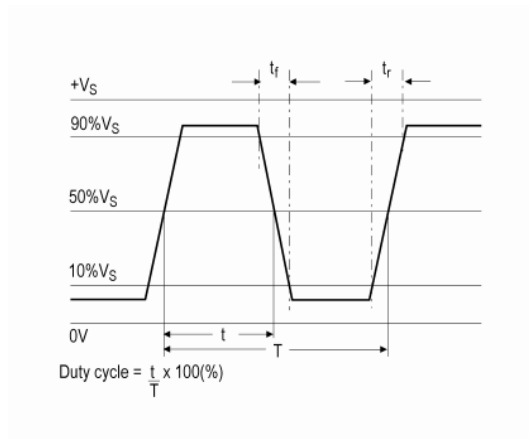
Toolbox:

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

Product Catalog:

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

### Wave Form



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