



## Crystal Clock Oscillator Specification

IQD Part No. + Packaging: LFSPX0020502Reel

Würth Part No. 831020502



### Description

- Standard 7 x 5mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed.
- Model CFPS-72
- Model Issue number 13

### Frequency Parameters

- Frequency 4.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  per year max

### Electrical Parameters

- Supply Voltage  $5.0\text{V} \pm 10\%$
- Current Draw  $20.000\text{mA}$
- Note: parameters are referenced to  $15\text{pF}$  load

### Output Details

- Output Compatibility HCMOS/TTL
- Drive Capability  $15\text{pF}$  std,  $50\text{pF}$  max
- Rise and Fall Time  $10.0\text{ns}$  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; the oscillator output goes to the high impedance state.  
No connection to pad 1 enables oscillator output.  
Standby Current:  $10\mu\text{A}$  max

### Noise Parameters

- RMS Phase Jitter:  $350\text{fs}$  typical

### Environmental Parameters

- Shock: MIL-STD-202, Method 213, Condition E.
- Vibration: MIL-STD-883, Method 2007, Condition A.
- Storage Temperature Range:  $-55$  to  $125^\circ$

### Manufacturing Details

- RoHS Terminations NiAu
- RoHS Reflow Temp  $260\text{degC}$  10s

### Compliance

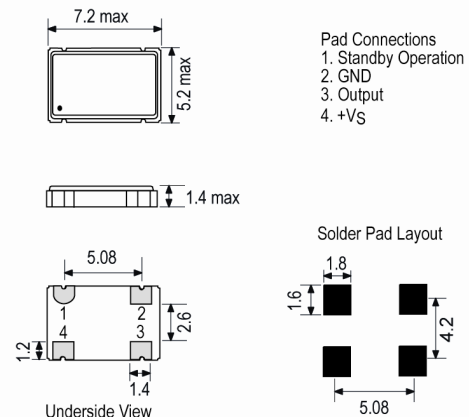
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

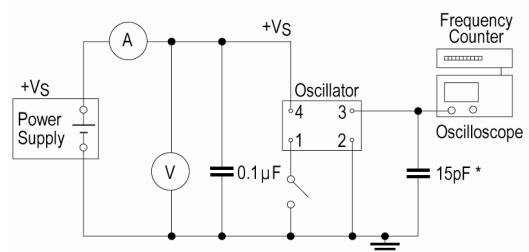
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
- Pack Size: 1,000



### Outline (mm)



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### CONTACT INFORMATION:

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- Alternative packing option available

### USEFUL LINKS

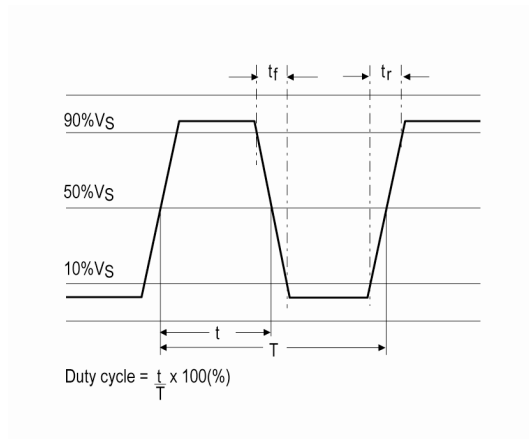
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### Wave Form



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