

### Description

- Standard 7.0 x 5.0mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed.
- Model CFPS-72
- Model Issue number 16

### Frequency Parameters

- Frequency 48.0MHz
- Frequency Stability  $\pm 100.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 5\text{ppm}$  per year max

### Electrical Parameters

- Supply Voltage  $5.0\text{V} \pm 10\%$
- Current Draw  $35.000\text{mA}$  max
- Note: parameters are referenced to  $15\text{pF}$  load

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  typ,  $30\text{pF}$  max
- Rise and Fall Time  $6.0\text{ns}$  max
- Duty Cycle  $40/60$  max
- Start up time:  $10\text{ms}$  max,  $1.1\text{ms}$  typ to 90% of final amplitude (under ideal conditions @ $25^\circ\text{C}$ ).

### 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,  $2.3\mu\text{A}$  typ @ $25^\circ\text{C}$ .

### Environmental Parameters

- Shock: Half Sine shock pulse with peak acceleration  $500\text{g}$ ;  
Pulse duration:  $0.3\text{ms}$
- Vibration: MIL-STD-202 Method 204.  $5\text{g}$  for 20 minutes, 12 cycles in each of the 3 orientations, 10 - 2000 Hz. As per Table 11 of AEC-Q200.
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$

### Manufacturing Details

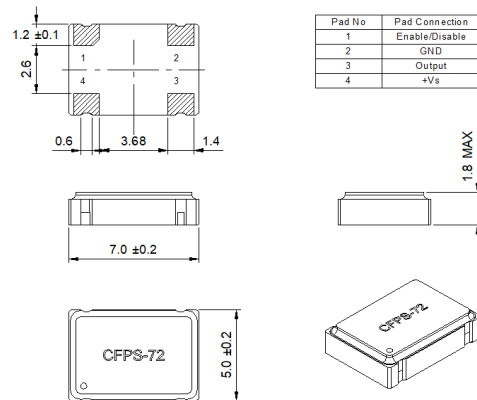
- RoHS Terminations NiAu
- RoHS Reflow Temp  $260^\circ\text{C}$  10s max

### Compliance

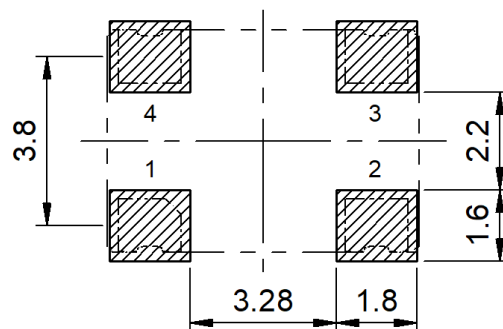
- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



### Outline (mm)



### Recommended Solder Pad Layout



### CONTACT INFORMATION:

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### Packaging Details

- Tape & reel in accordance with EIA-481  
Quantities below the standard reel size to be supplied on cut tape.  
Standard Quantity: 1,000 Pieces

### USEFUL LINKS

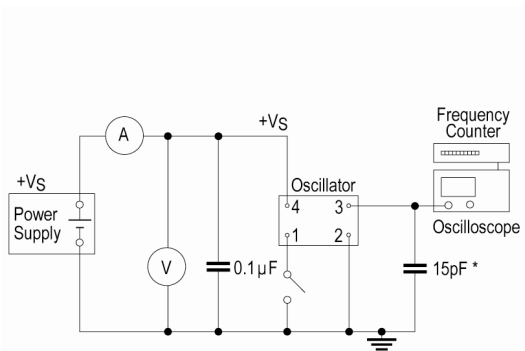
**Toolbox:**

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

**Product Catalog:**

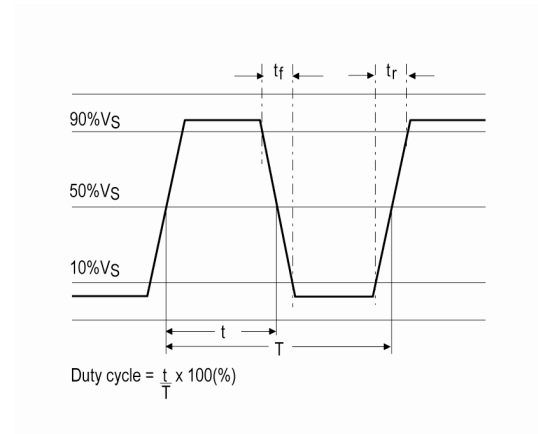
[www.we-online.com/products](http://www.we-online.com/products)

### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Waveform



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