


**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 14

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range 0.00 to 70.00°C
- Ageing  $\pm 3\text{ppm}$  per year max

**Electrical Parameters**

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

**Output Details**

- Output Compatibility HCMOS/TTL
- Drive Capability 15pF std, 50pF max
- Rise and Fall Time 10.0ns max
- Duty Cycle 45/55%
- Start up time: 10ms max  
1.1ms typ to 90% of final amplitude (under ideal conditions @ 25°C)
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**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 $\mu$ A max, 2.3 $\mu$ A typ @ 25°C

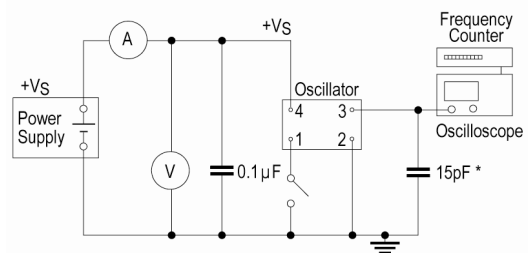
**Noise Parameters**

- RMS Phase Jitter: 350fs 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°


**Outline (mm)**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

**Sales Office Contact Details:**

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### Manufacturing Details

- RoHS Terminations NiAu
- RoHS Reflow Temp 260°C 10s

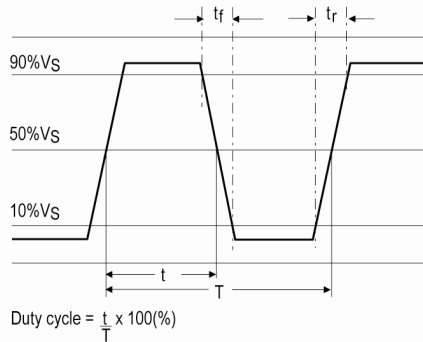
### Compliance

- 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
- *Alternative packing option available*

### Wave Form



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