


**Description**

- Standard 7 x 5mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed
- Model CFPS-73
- Model Issue number 12

**Frequency Parameters**

- Frequency 20.0MHz
- 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  $3.3\text{V} \pm 10\%$
- Current Draw  $12.00\text{mA}$

**Output Details**

- Output Compatibility HCMOS
- Drive Capability  $50\text{pF}$  max
- Rise and Fall Time  $10.0\text{ns}$  max
- Duty Cycle 45/55

**Output Control**

- 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**

- Phase Noise @125MHz (typical):  
10Hz  $-54\text{dBc}$   
100Hz  $-92\text{dBc}$   
1kHz  $-130\text{dBc}$   
10kHz  $-149\text{dBc}$   
100kHz  $-159\text{dBc}$   
1MHz  $-163\text{dBc}$
- RMS Phase Jitter @125MHz: 52fs typical

**Environmental Parameters**

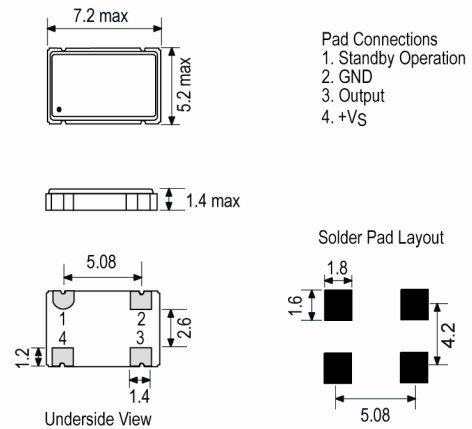
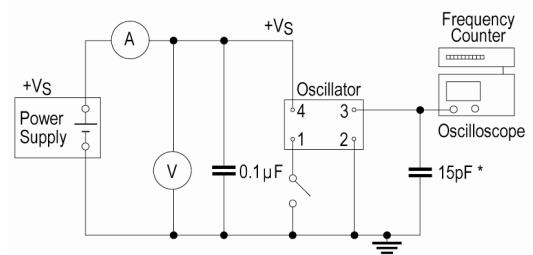
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$

**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*


**Outline (mm)**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

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**Wave Form**



**Phase Noise / Jitter**



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