

## Customer Part:



### Description

- Standard 7 x 5mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed.
- Model CFPS-73
- Model Issue number 14

### 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 12.000mA
- Note: parameters are referenced to 15pF load

### Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF std, 50pF max
- Rise and Fall Time 10.0ns max
- Duty Cycle 45/55
- Start up time: 10ms max.  
0.9ms 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, 0.9 $\mu\text{A}$  typ @  $25^\circ\text{C}$

### Noise Parameters

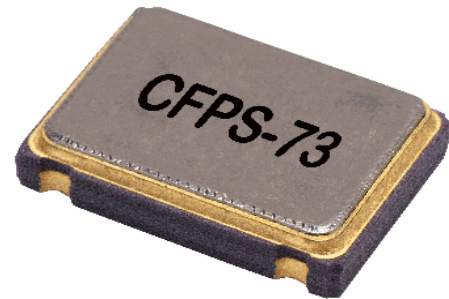
- Phase Noise @125MHz (typical):  
10Hz -54dBc  
100Hz -92dBc  
1kHz -130dBc  
10kHz -149dBc  
100kHz -159dBc  
1MHz -163dBc
- RMS Phase Jitter @125MHz: 52fs typical

### Environmental Parameters

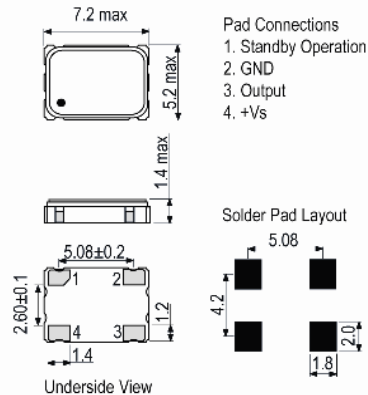
- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$

### Manufacturing Details

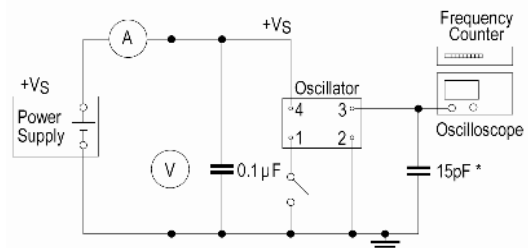
- RoHS Terminations NiAu
- RoHS Reflow Temp 260degC 10s



### Outline (mm)



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

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**Customer Part:**

**Compliance**

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

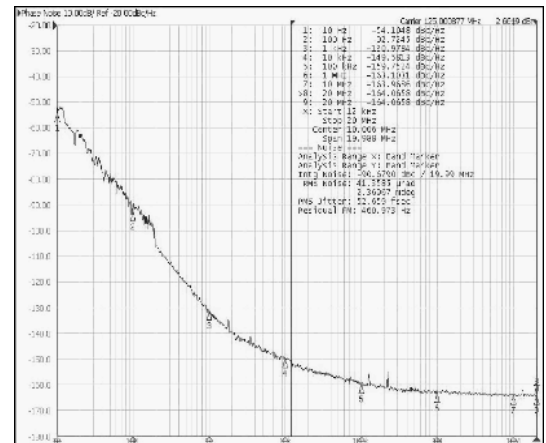
**Packaging Details**

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 100
- *Alternative packing option available*

**Wave Form**



**Phase Noise / Jitter**



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