



### Description

- Standard 7 x 5mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed
- Model: CFPS-72
- Model Issue number: 12

### Frequency Parameters

- Frequency: 16.0MHz
- 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: 20.00mA

### Output Details

- Output Compatibility: HCMOS/TTL
- Drive Capability: 50pF max
- Rise and Fall Time: 10ns 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

- Phase Noise (@125.0MHz) typical:
  - 10Hz -54dBC/Hz
  - 100Hz -93dBC/Hz
  - 1KHz -131dBC/Hz
  - 10KHz -150dBC/Hz
  - 100KHz -160dBC/Hz
  - 1MHz -163dBC/Hz
  - 10MHz -164dBC/Hz
- Phase Jitter RMS (@:125.0MHz): 53fs typical

### Environmental Parameters

- Shock: MIL-STD-202, Method 213, Condition E
- Vibration: MIL-STD-883, Method 2007, Condition A

### Compliance

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

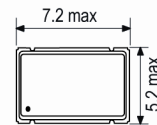
### Packaging Details

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

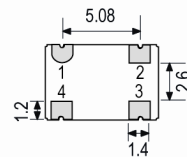
*This document is correct at the time of printing; please contact your local office for the latest version.*



### Outline (mm)

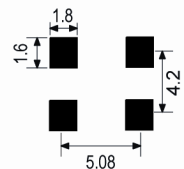


- Pad Connections
- Standby Operation
  - GND
  - Output
  - +VS

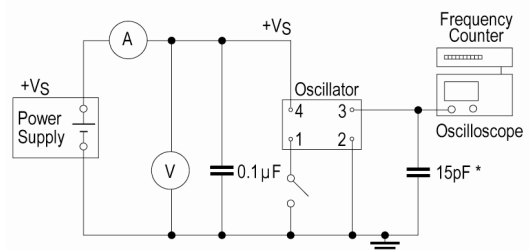


Underside View

### Solder Pad Layout



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

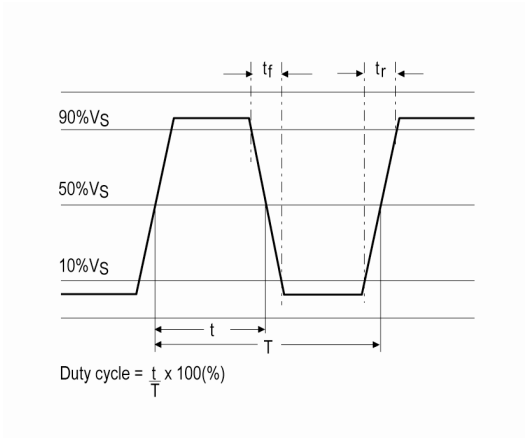
UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1 408.273.4530

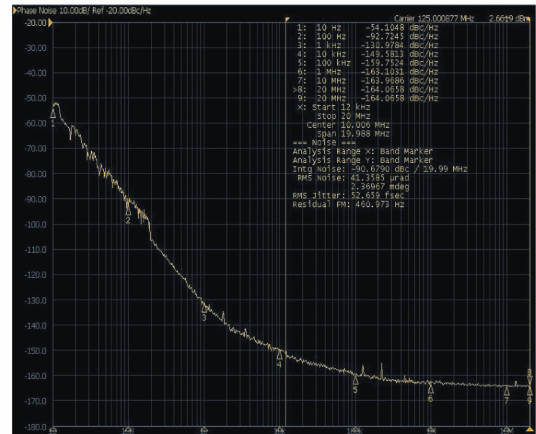
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)



**Wave Form**



**Phase Noise / Jitter**



**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1 408.273.4530

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)