



ISSUE 3; December 2012 - RoHS 2011/65/EU



### Description

- Suitable for real time clock applications
- 32.768kHz output crystal oscillators
- Ceramic package with a seam sealed metal lid, hermetically sealed

### Frequency Range

- Frequency 32.7680kHz

### Supply Voltage

- Voltage 3.3V ±5%

### Ageing

- Ageing ±3ppm max per year

### Output Compatibility & Load

- Output Compatibility CMOS
- Drive Capability 15pF max

### Frequency Stabilities

- Frequency Stability ±20ppm, ±25ppm ±50ppm, ±100ppm  
(inclusive of supply voltage and output load variations over the operating temperature range)

### Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

### Output Details

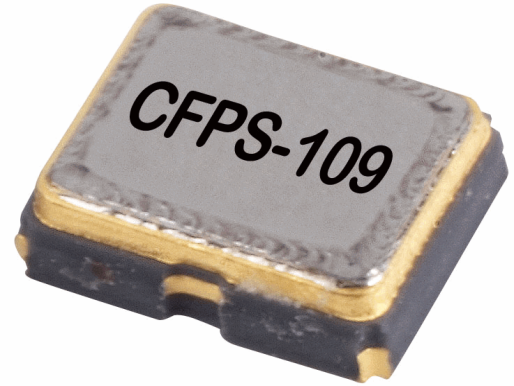
- Logic '1' to pad 1 enables oscillator output
- Logic '0' to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

### Environmental Parameters

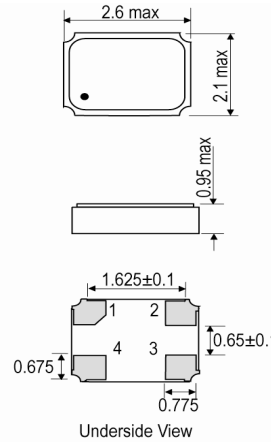
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-883F, Method 2002.4: 1500G, 0.5ms, 3 times in each of 3 mutually perpendicular planes.
- Vibration: MIL-STD-883F, Method 2007.3: 20G (20Hz-2000Hz), 1.52mm amplitude

### Ordering Information (\*minimum required)

- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage
- Example
- 32.768kHz CFPS-109
- CMOS ±50ppm 0 to 70C 3.3V

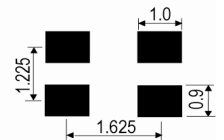


### Outline (mm)

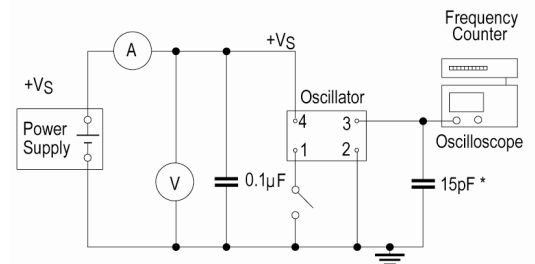


- Pad Connections
1. Tri-State Operation
  2. GND
  3. Output
  4. +Vs

### Solder Pad Layout



### Test Circuit



\* Inclusive of jigging and equipment capacitance

### Sales Office Contact Details:

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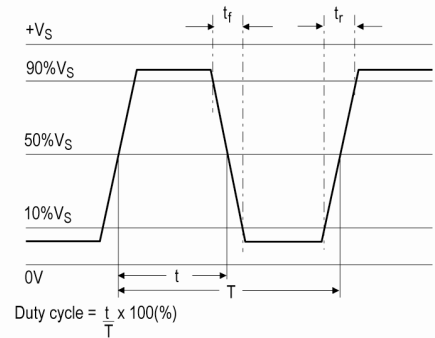
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
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**Packing Details**

- Pack Style: **Bulk**            Loose in bulk pack  
Pack Size                    100
- Pack Style: **Reel**            Tape and reel in accordance with EIA-481-D  
Pack Size                    1,000
- Alternative packing options available

**Wave Form**



**Electrical Specification - maximum limiting values 3.3V ±5%**

| Frequency Range | Temp Range  | Stability Inclusive |         | Current Draw | Rise & Fall (10 to 90%) | Duty Cycle % |
|-----------------|-------------|---------------------|---------|--------------|-------------------------|--------------|
|                 |             | Min                 | Max     |              |                         |              |
| 32.768kHz       | 0 to 70°C   | ±20ppm              | ±100ppm | 3.5mA        | 50ns                    | 40/60%       |
|                 | -40 to 85°C | ±25ppm              | ±100ppm | 3.5mA        | 50ns                    | 40/60%       |

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

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