



ISSUE 11; July 2014 - RoHS 2011/65/EU

#### Description

- Surface mount oscillator in a ceramic package with a hermetically sealed metal lid
- Fast Make capability: CFPP-73 series programmable oscillators are the nearest equivalent fast make model

#### Frequency Parameters

- Frequency 12.0kHz to 170.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max in 1st year

#### Electrical Parameters

- Supply Voltage  $3.3\text{V} \pm 0.3\text{V}$

#### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

#### Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF max

#### Output Control

- Tri-state Operation:  
Logic '1' (0.7Vs min) to pad 1 enables oscillator output  
Logic '0' (0.3Vs max) 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

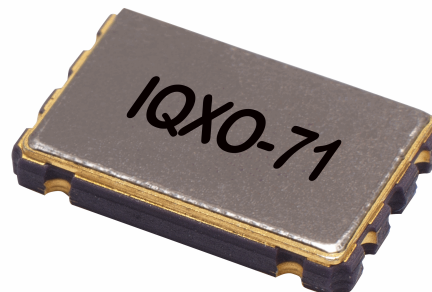
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G, frequency range 10-2000Hz 2hrs in 3 mutually perpendicular planes (total 6hrs)
- Storage Temperature Range: -55 to 125°C

#### Ordering Information

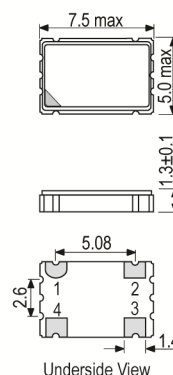
- Frequency\*
- Model\*
- Output
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage (\*minimum required)
- Example  
20.0MHz IQXO-71  
HCMOS  $\pm 50\text{ppm}$  -10 to 70C 3.3V

#### Compliance

- RoHS Status Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

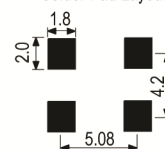


#### Outline (mm)

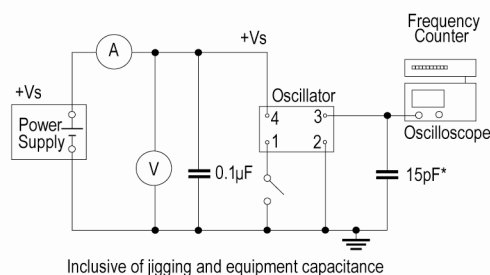


Pad Connections  
1. Enable/Disable  
2. GND  
3. Output  
4. +Vs

#### Solder Pad Layout



#### Test Circuit



#### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: +49 (0) 30 408 192 300

France: +33 (0)5 34 50 91 18  
USA: +1 408.273.4530

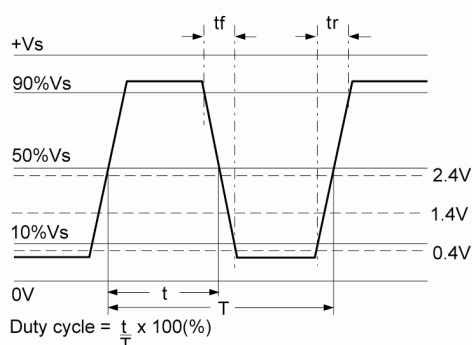
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)



#### Packaging Details

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 100
- Pack Style: Cutt      Cut Tape  
Pack Size: 1
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

#### Wave Form



#### Electrical Specification - maximum limiting values 3.3V $\pm 0.3V$

| Frequency Min | Frequency Max | Temperature Range | Stability (min) | Current Draw | Rise and Fall Time | Duty Cycle |
|---------------|---------------|-------------------|-----------------|--------------|--------------------|------------|
|               |               | °C                | ppm             | mA           | ns                 | %          |
| 12.000kHz     | 1.544MHz      | -40 to 85         | $\pm 50.0$      | 12           | 6                  | 45/55      |
|               |               | -10 to 70         | $\pm 25.0$      | 12           | 6                  | 45/55      |
| 1.544001MHz   | 25.0MHz       | -40 to 85         | $\pm 50.0$      | 12           | 6                  | 45/55      |
|               |               | -10 to 70         | $\pm 25.0$      | 12           | 6                  | 45/55      |
| 25.000001MHz  | 32.0MHz       | -40 to 85         | $\pm 50.0$      | 12           | 6                  | 45/55      |
|               |               | -10 to 70         | $\pm 25.0$      | 12           | 6                  | 45/55      |
| 32.000001MHz  | 50.0MHz       | -40 to 85         | $\pm 50.0$      | 16.5         | 6                  | 45/55      |
|               |               | -10 to 70         | $\pm 25.0$      | 16.5         | 6                  | 45/55      |
| 50.000001MHz  | 67.0MHz       | -40 to 85         | $\pm 50.0$      | 18           | 6                  | 40/60      |
|               |               | -10 to 70         | $\pm 25.0$      | 18           | 6                  | 40/60      |
| 67.000001MHz  | 80.0MHz       | -40 to 85         | $\pm 50.0$      | 40           | 6                  | 40/60      |
|               |               | -10 to 70         | $\pm 25.0$      | 40           | 6                  | 40/60      |
| 80.000001MHz  | 125.0MHz      | -40 to 85         | $\pm 50.0$      | 40           | 4                  | 40/60      |
|               |               | -10 to 70         | $\pm 25.0$      | 40           | 4                  | 40/60      |
| 125.000001MHz | 170.0MHz      | -40 to 85         | $\pm 50.0$      | 50           | 3                  | 40/60      |
|               |               | -10 to 70         | $\pm 25.0$      | 50           | 3                  | 40/60      |

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

[Click to view latest version on our website.](#)

#### Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: +49 (0) 30 408 192 300

France: +33 (0)5 34 50 91 18  
USA: +1 408.273.4530

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