



ISSUE 7; October 2012 - RoHS 2011/65/EU

**Description**

- Standard 3.2 x 2.5mm SMD crystal
- Ceramic package with a seam sealed metal lid, hermetically sealed.

**Frequency Range**

- Frequency: 12.0 to 67.0MHz
- Frequency Stability: ±10.00ppm
- Frequency Tolerance: ±10ppm to ±50ppm

**General Specification**

- Load Capacitance (CL): 10.0pF to 75.0pF or Series
- Drive Level: 100µW max
- Ageing: ±5ppm max per year @ 25°C
- Shunt Capacitance (C0): 7pF max

**Operating Temperature Ranges**

- 10 to 60°C
- 20 to 70°C
- 40 to 60°C
- 40 to 85°C

**Environmental Parameters**

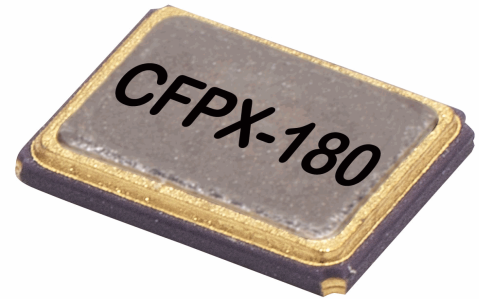
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

**Ordering Information**

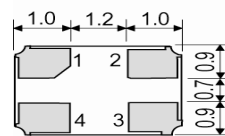
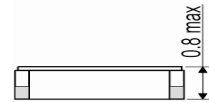
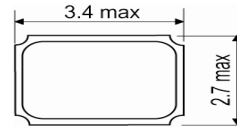
- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone
- Example  
20.0MHz CFPX-180  
50/50/-40 to 85C/16 FUND

**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



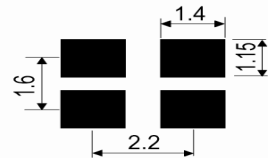
**Outline (mm)**



Underside View

- Pad Connections
- Crystal
  - GND
  - Crystal
  - GND

**Solder Pad Layout**



**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: +49 (0)7264 9145-0

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

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



**Electrical Specification - maximum limiting values**

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
12.0 to <13.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	250Ω	Fundamental
13.0 to <16.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	150Ω	Fundamental
16.0 to <30.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	100Ω	Fundamental
30.0 to <67.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	60Ω	Fundamental

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

**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: +49 (0)7264 9145-0

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

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