



ISSUE 9; April 2014 - RoHS 2011/65/EU

**Description**

- Standard 5x3.2mm SMD crystal with four pads.  
Ceramic package with a seam sealed metal lid, hermetically sealed.  
Please see our CFPX-225 for a two pad alternative.

**Frequency Range**

- Frequency: 8.0 to 133.0MHz
- Frequency Stability: ±10.00ppm to ±100.00ppm
- Frequency Tolerance: ±10ppm to ±50ppm

**General Specification**

- Load Capacitance (CL): 10.0pF to 30.0pF or Series
- Drive Level: 100µW max
- Ageing: ±3ppm max per year @ 25°C
- Shunt Capacitance (C0): 7pF max

**Operating Temperature Ranges**

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

**Environmental Parameters**

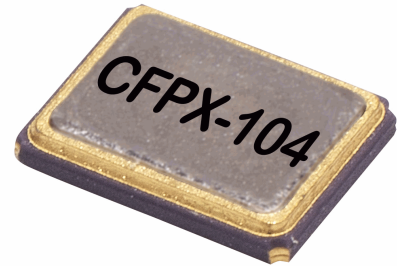
- Shock: 1500G, 0.5ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes, 4 cycles
- Storage Temperature Range: -55 to 125°C

**Ordering Information**

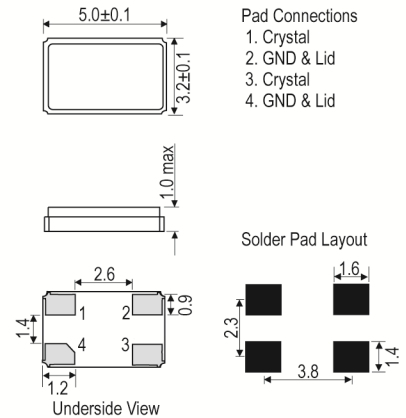
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example
- 10.0MHz CFPX-104
- 50/50/-40 to 85C/10 FUND

**Packing Details**

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



**Outline (mm)**



**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: +49 (0)7264 9145-62

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)

**Electrical Specification - maximum limiting values**

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
8.0 to <10.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	150Ω	Fundamental
10.0 to <12.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	90Ω	Fundamental
12.0 to <15.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	70Ω	Fundamental
15.0 to <20.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	50Ω	Fundamental
20.0 to <30.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	40Ω	Fundamental
30.0 to <40.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	30Ω	Fundamental
40.0 to <80.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	100Ω	3RD Overtone
40.0 to <52.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	20Ω	Fundamental
80.0 to <133.0MHz	±10ppm to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	80Ω	3RD Overtone

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

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