



ISSUE 4; January 2012 - RoHS 2011/65/EU

**Description**

- Standard 4 x 2.5mm SMD crystal.
- Ceramic package with a seam sealed metal lid, hermetically sealed.
- Often used in Bluetooth, ZigBee and similar RF applications.

**Frequency Range**

- Frequency 12.0 to 50.0Mhz
- Frequency Tolerance ±10ppm to ±50ppm

**General Specification**

- Load Capacitance (CL) 9pF
- Drive Level 100µW max
- Ageing ± 1ppm max per year @ 25°C
- Shunt Capacitance (C0) 5pF max

**Operating Temperature Ranges**

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

**Environmental Parameters**

- Drop: 75cm drop (3 times) onto hard wooden board
- Vibration: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane.
- Storage Temperature: -40°C to 90°C

**Ordering Information**

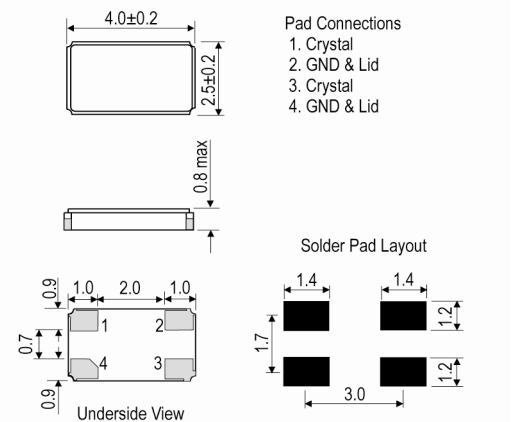
- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- Example
- 20.0MHz CFPX-201
- 50/50/-10 to 60C/10 FUND

**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)**



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**Electrical Specification - maximum limiting values**

Frequency Range	Frequency Tolerance	Stability		Temperature Range	ESR Max	Vibration Mode
		Min	Max			
12.0 to <13.0MHz	±10 to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	100Ω	Fundamental
13.0 to <19.0MHz	±10 to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	80Ω	Fundamental
19.0 to <40.0MHz	±10 to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	60Ω	Fundamental
40.0 to <50.0MHz	±10 to ±50ppm	±10ppm ±15ppm ±20ppm	±50ppm	-10 to 60°C -20 to 70°C -40 to 85°C	50Ω	Fundamental

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

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