

ISSUE 4; April 2022

### Description

- Standard 2.5 x 2mm SMD crystal in a hermetically sealed ceramic package with a seam sealed metal lid. Please see our CFPX-181 for a low ageing version.

### Frequency Parameters

- Frequency: 12.0MHz to 50.0MHz
- Frequency Tolerance:  $\pm 10.00\text{ppm}$  to  $\pm 50.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability:  $\pm 10.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Load Capacitance (CL): 8.0pF to 30.0pF
- Shunt Capacitance (C0): 5pF max
- Drive Level: 100µW max

### Operating Temperature Ranges

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

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 100cm drop (3 times) onto hard wooden board.
- Vibration: MIL-STD-883F, Method 2007.3: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes (total 4hrs).

### Manufacturing Details

- Maximum Process Temperature: 260°C (10secs max)
- RoHS Terminations: NiAu
- RoHS Reflow: 260°C max for 10secs max

### Ordering Information

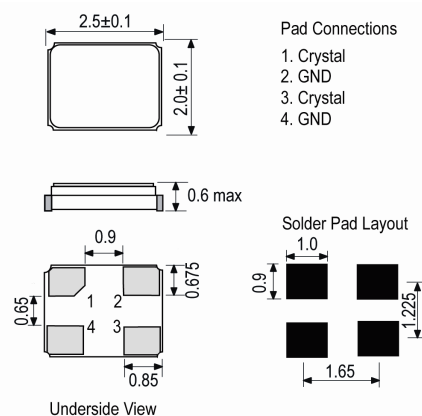
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone  
(\*minimum required)
- Example  
20.0MHz CFPX-218  
20/20/-40 to 85C/16 FUND

### Compliance

- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



### Outline (mm)



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**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Cutt      In tape, cut from a reel  
Pack Size: 100
- Pack Style: RL3K      Tape & reel in accordance with EIA-481-D  
Pack Size: 3,000

**Electrical Specification - maximum limiting values**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
12.0MHz	15.999999MHz	-10 to 70	±10	Fundamental	300
		-20 to 70	±10		300
		-40 to 85	±20		300
16.0MHz	29.999999MHz	-10 to 70	±10	Fundamental	100
		-20 to 70	±10		100
		-40 to 85	±20		100
30.0MHz	50.0MHz	-10 to 60	±10	Fundamental	70
		-20 to 70	±10		70
		-40 to 85	±20		70

\*Stability Maximum values ±100ppm

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

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