

ISSUE 9; August 2022

### Description

- Standard 5x3.2mm SMD crystal with four pads.  
Ceramic package with a seam sealed metal lid, hermetically sealed.  
Please see our IQXC-49 for a two pad alternative.

### Frequency Parameters

- Frequency: 8.0MHz to 133.0MHz
- 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  $\pm 50.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Load Capacitance (CL): 10.0pF to 30.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max

### Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 40 to 85°C
- 40 to 105°C
- 40 to 125°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

### Manufacturing Details

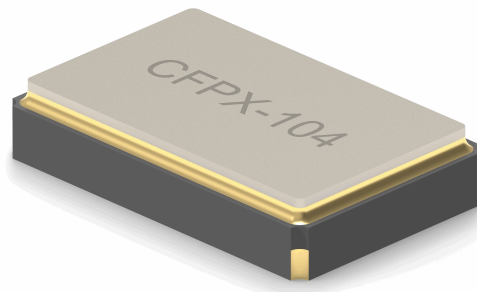
- RoHS Terminations: Au 0.3µm~1.0µm
- RoHS Reflow: 260degC max for 30s max

### Ordering Information

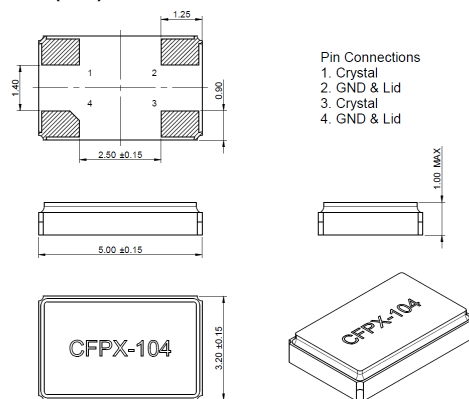
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example  
10.0MHz CFPX-104  
50/50/-40 to 85C/10 FUND

### Compliance

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

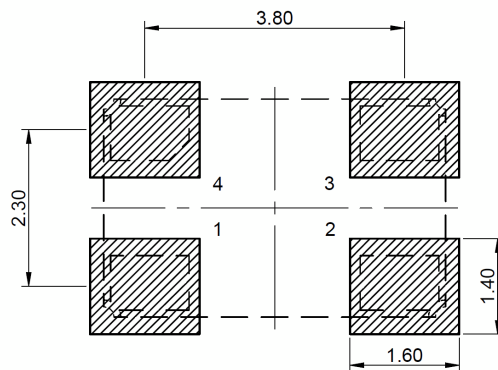


### Outline (mm)



NOTE: The chamfer may appear on pad 1 or 4. This causes no change to the electrical performance of the device.

### Recommended Solder Pad Layout



### Sales Office Contact Details:

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**Packaging Details**

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

**Electrical Specification - maximum limiting values**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
8.0MHz	10.0MHz	-10 to 60	±10	Fundamental	150
		-20 to 70	±10		150
		-40 to 85	±20		150
		-40 to 105	±50		150
		-40 to 125	±50		150
10.000001MHz	12.0MHz	-10 to 60	±10	Fundamental	90
		-20 to 70	±10		90
		-40 to 85	±20		90
12.000001MHz	15.0MHz	-10 to 60	±10	Fundamental	70
		-20 to 70	±10		70
		-40 to 85	±20		70
15.000001MHz	20.0MHz	-10 to 60	±10	Fundamental	50
		-20 to 70	±10		50
		-40 to 85	±20		50
20.000001MHz	30.0MHz	-10 to 60	±10	Fundamental	40
		-20 to 70	±10		40
		-40 to 85	±20		40
30.000001MHz	40.0MHz	-10 to 60	±10	Fundamental	30
		-20 to 70	±10		30
		-40 to 85	±20		30
40.0MHz	80.0MHz	-10 to 60	±10	3rd Overtone	100
		-20 to 70	±10		100
		-40 to 85	±20		100
40.000001MHz	52.0MHz	-10 to 60	±10	Fundamental	20
		-20 to 70	±10		20
		-40 to 85	±20		20
80.000001MHz	133.0MHz	-10 to 60	±10	3rd Overtone	80
		-20 to 70	±10		80
		-40 to 85	±20		80

\*Stability Maximum values ±50ppm

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

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