

ISSUE 9; September 2019

**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

**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 3s

**Ordering Information**

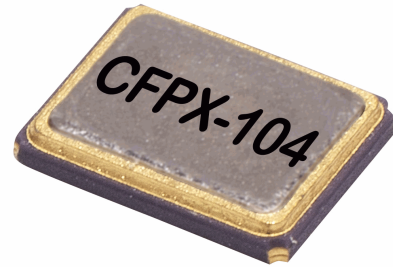
- Frequency\*
- Model\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example  
10.0MHz CFPX-104  
50/50/-40 to 85C/10 FUND

**Compliance**

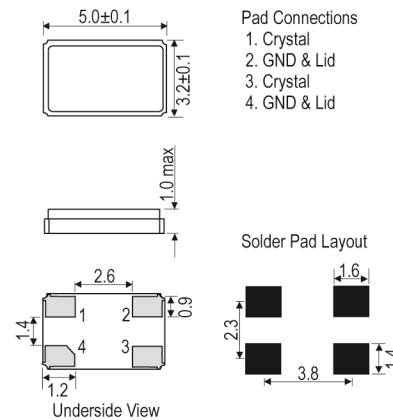
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

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

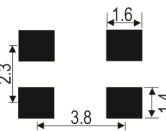


**Outline (mm)**



- Pad Connections
1. Crystal
  2. GND & Lid
  3. Crystal
  4. GND & Lid

Solder Pad Layout



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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 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	150
10.000001MHz	12.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	90
12.000001MHz	15.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	70
15.000001MHz	20.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	50
20.000001MHz	30.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	40
30.000001MHz	40.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	30
40.0MHz	80.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	3rd Overtone	100
40.000001MHz	52.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	20
80.000001MHz	133.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	3rd Overtone	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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