

ISSUE 10; April 2022

Description

- Standard 3.2 x 2.5mm SMD crystal in a ceramic package with a seam sealed metal lid, hermetically sealed.

Frequency Parameters

- Frequency: 10.0MHz to 200.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$ @ 25°C
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL): 4.0pF to 75.0pF
- Shunt Capacitance (C0): 7pF 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
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

Manufacturing Details

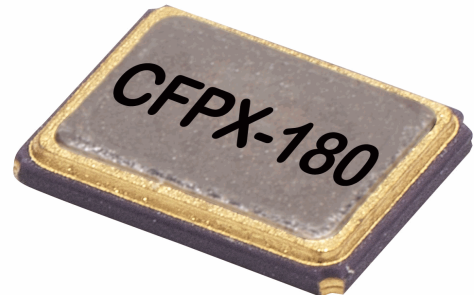
- RoHS Terminations: NiAu
- RoHS Reflow: 260degC 10s

Ordering Information

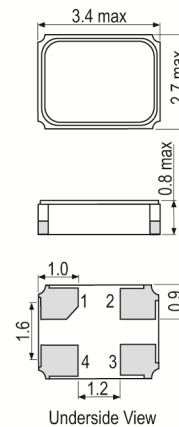
- Frequency*
- Model*
- Frequency Tolerance*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example
- 20.0MHz CFPX-180
- 50/50/-40 to 85C/16 FUND

Compliance

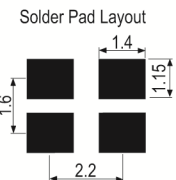
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



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



Solder Pad Layout

Underside View

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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
10.0MHz	11.999999MHz	-10 to 70	±10	Fundamental	200
		-20 to 70	±10		200
		-40 to 85	±15		200
12.0MHz	15.999999MHz	-10 to 70	±10	Fundamental	120
		-20 to 70	±10		120
		-40 to 85	±15		120
16.0MHz	19.999999MHz	-10 to 70	±10	Fundamental	70
		-20 to 70	±10		70
		-40 to 85	±15		70
20.0MHz	29.999999MHz	-10 to 60	±10	Fundamental	50
		-20 to 70	±10		50
		-40 to 85	±15		50
30.0MHz	39.999999MHz	-10 to 70	±10	Fundamental	40
		-20 to 70	±10		40
		-40 to 85	±15		40
40.0MHz	54.0MHz	-10 to 60	±10	Fundamental	35
		-20 to 70	±10		35
		-40 to 85	±15		35
54.000001MHz	200.0MHz	-10 to 70	±30	Fundamental	60
		-20 to 70	±30		60
		-40 to 85	±30		60

*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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