

CFPX-104 CRYSTALS

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Description

- Standard 5 x 3.2mm SMD crystal with 4 pads
- Ceramic package with a seam sealed metal lid, hermetically sealed
- Please see our CFPX-225 for a two pad alternative
- Stock parts listed at the beginning of this chapter

General Specifications

- Load Capacitance (CL): 10pF to 30pF or Series
- Drive Level: 100µW max
- Ageing: ±5ppm max per year at 25°C
- Shunt Capacitance (C₀): 7pF max

Standard Frequency Tolerances and Stabilities

- ±10ppm to ±50ppm

Operating Temperature Ranges

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

Storage Temperature Range

- 55 to 125°C

Environmental

- Drop: 75cm drop (3 times) onto hard wooden board
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

Packaging

- Loose in bulk pack, 100pcs per bag
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

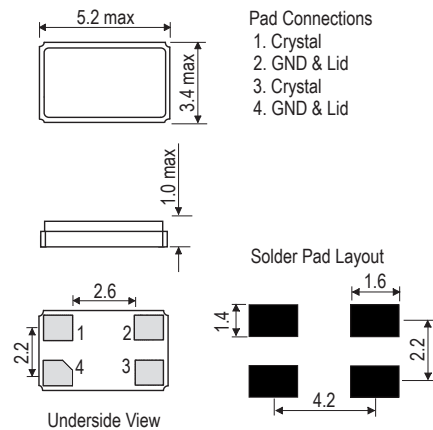
Ordering Information (*minimum required)

- Frequency*
- Model*
- Frequency Tolerance (@25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone*

Example

- 10.0MHz CFPX-104
50/50/-40 to 85C/10 FUND

Outline (mm)



Pad Connections

- Crystal
- GND & Lid
- Crystal
- GND & Lid

Solder Pad Layout



Electrical Specifications – maximum limiting values

Frequency Range	Frequency Tolerance @25°C ±2°C	Operating Temperature Ranges	Frequency Stability Available Over Operating Temperature Range		ESR Max	Vibration Mode
			Minimum	Maximum		
8.0 to 10.0MHz	±10ppm to ±50ppm	-10 to 60°C	±10ppm	±50ppm	150Ω	Fundamental AT cut
		-20 to 70°C	±15ppm			
		-40 to 85°C	±20ppm			
>10.0 to 12.0MHz		-10 to 60°C	±10ppm		90Ω	
		-20 to 70°C	±15ppm			
		-40 to 85°C	±20ppm			
>12.0 to 15.0MHz		-10 to 60°C	±10ppm		70Ω	
		-20 to 70°C	±15ppm			
		-40 to 85°C	±20ppm			
>15.0 to 20.0MHz		-10 to 60°C	±10ppm		50Ω	
		-20 to 70°C	±15ppm			
		-40 to 85°C	±20ppm			
>20.0 to 30.0MHz	-10 to 60°C	±10ppm	40Ω			
	-20 to 70°C	±15ppm				
	-40 to 85°C	±20ppm				
>30.0 to 40.0MHz	-10 to 60°C	±10ppm	30Ω			
	-20 to 70°C	±15ppm				
	-40 to 85°C	±20ppm				
>40.0 to 52.0MHz	-10 to 60°C	±10ppm	20Ω			
	-20 to 70°C	±15ppm				
	-40 to 85°C	±20ppm				
40.0 to 80.0MHz	-10 to 60°C	±10ppm	100Ω	3rd Overtone AT cut		
	-20 to 70°C	±15ppm				
	-40 to 85°C	±20ppm				
>80.0 to 150.0MHz	-10 to 60°C	±10ppm	80Ω			
	-20 to 70°C	±15ppm				
	-40 to 85°C	±20ppm				

Note: For any other frequencies / specification please contact our sales offices

