

ISSUE 12; November 2023

Description

- 7 x 5mm SMD crystal Ceramic package with a seam sealed metal lid, hermetically sealed.
 - Offers lower profile than the standard 12SMX.
 - Offers tighter stability than the standard 12SMX.
- Please see our 12SMX part for standard stock items in this package type.

Frequency Parameters

- Frequency: 8.0MHz to 100.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Frequency Stability: $\pm 5.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL): 10.0pF to 75.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max

Operating Temperature Ranges

- 0 to 50°C
- 10 to 60°C
- 20 to 70°C
- 30 to 80°C
- 40 to 85°C

Environmental Parameters

- Storage Temperature Range: -40 to 85°C

Manufacturing Details

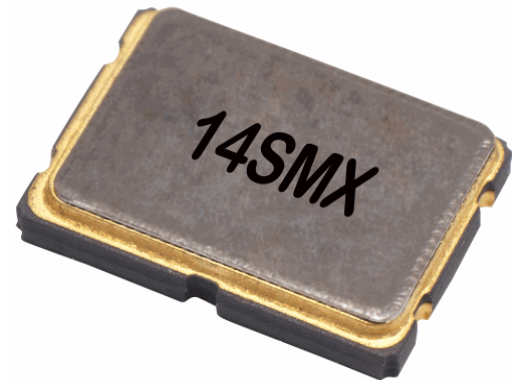
- RoHS Terminations: NiAu
- RoHS Reflow: 260degC 10s

Ordering Information

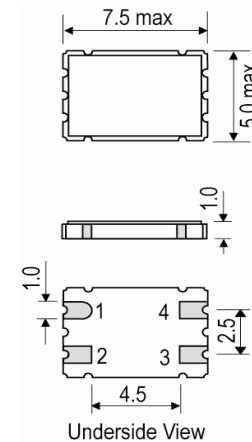
- Frequency*
- Model*
- Frequency Tolerance (@25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone*
- Example: 10.0MHz 14SMX 50/50/-20 to 70C/10 FUND

Compliance

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



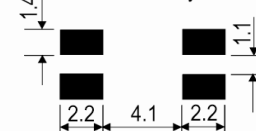
Outline (mm)



Pad Connections

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

Solder Pad Layout



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Packaging Details

- Pack Style: Bulk Loose in bulk pack
Pack Size: 100
- 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

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability	Over Tone Order	ESR
		°C	ppm		Ω
8.0MHz	9.999999MHz	0 to 50	±5	Fundamental	60
		-10 to 60	±5		60
		-20 to 70	±5		60
		-30 to 80	±15		60
		-40 to 85	±20		60
10.0MHz	15.999999MHz	0 to 50	±5	Fundamental	50
		-10 to 60	±5		50
		-20 to 70	±5		50
		-30 to 80	±15		50
		-40 to 85	±20		50
16.0MHz	32.0MHz	0 to 50	±5	Fundamental	40
		-10 to 60	±5		40
		-20 to 70	±5		40
		-30 to 80	±15		40
		-40 to 85	±20		40
28.0MHz	83.999999MHz	0 to 50	±5	3rd Overtone	60
		-10 to 60	±5		60
		-20 to 70	±5		60
		-30 to 80	±15		60
		-40 to 85	±20		60
84.0MHz	100.0MHz	0 to 50	±5	5th Overtone	80
		-10 to 60	±5		80
		-20 to 70	±5		80
		-30 to 80	±15		80
		-40 to 85	±20		80

*Stability Maximum values ±100ppm

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