

ISSUE 3; January 2024

Description

- Hermetically sealed ceramic package with a seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 Rev D and available with IATF-16949:2016 release. Not suitable for safety critical applications.
- A 2 pad
- B 4 pad

Frequency Parameters

- Frequency: 8.0MHz to 125.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 50.00\text{ppm}$ to $\pm 150.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL): 8.0pF to 75.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 50µW typical (200µW max)

Operating Temperature Ranges

- 40 to 85°C
- 40 to 125°C

Environmental Parameters

- Storage Temperature Range: -45°C to Max Operating Temperature+5°C
- Qualified to AEC-Q200 Rev D

Manufacturing Details

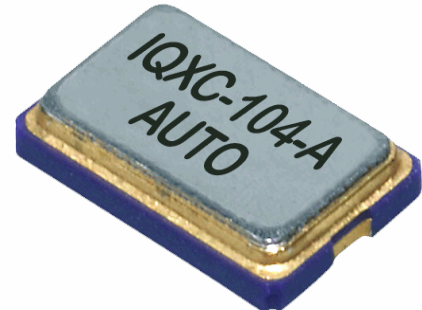
- RoHS Terminations: NiAu
- RoHS Reflow: 260°C max for 10secs max

Ordering Information

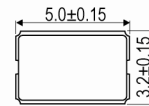
- Frequency*
- Model*
- Variant*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example:
20.00MHz IQXC-104 AUTO - B
50/100/-40 to 125C/8 FUND

Compliance

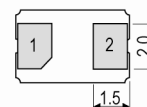
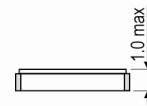
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm) -A = 2 pad

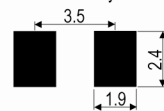


Pad connections
1. Crystal
2. Crystal

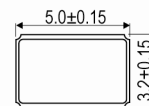


Underside View

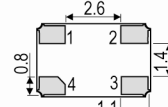
Solder Pad Layout



Outline (mm) -B = 4 pad

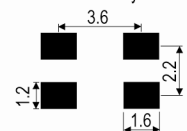


Pad connections
1. Crystal
2. GND
3. Crystal
4. GND



Underside View

Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

Packaging Details

- Pack Style: Bulk Bulk pack
 Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
 Pack Size: 1,000
- Pack Style: Cutt Cut tape
 Pack Size: 100

Electrical Specification - maximum limiting values

| Frequency Min | Frequency Max | Temperature Range | Stability (Min) | Over Tone Order | ESR |
|---------------|---------------|-------------------|-----------------|-----------------|-----|
| | | °C | ppm | | Ω |
| 8.0MHz | 14.0MHz | -40 to 85 | ±50 | Fundamental | 150 |
| | | -40 to 125 | ±100 | | 150 |
| 14.000001MHz | 20.0MHz | -40 to 85 | ±50 | Fundamental | 120 |
| | | -40 to 125 | ±100 | | 120 |
| 20.000001MHz | 26.0MHz | -40 to 85 | ±50 | Fundamental | 100 |
| | | -40 to 125 | ±100 | | 100 |
| 26.000001MHz | 50.0MHz | -40 to 85 | ±50 | Fundamental | 60 |
| | | -40 to 125 | ±100 | | 60 |
| 40.0MHz | 125.0MHz | -40 to 85 | ±50 | 3rd Overtone | 120 |
| | | -40 to 125 | ±100 | | 120 |

*Stability Maximum values ±150ppm

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