

ISSUE 1; August 2020

### Description

- High frequency fundamental quartz crystal in a miniature ceramic package with a seam-sealed metal lid.

### Frequency Parameters

- Frequency: 20.0MHz to 200.0MHz
- 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  $\pm 50.00\text{ppm}$
- Frequency Tolerance Range:
  - $\pm 10\text{ppm}$  min to  $\pm 50\text{ppm}$  max (20MHz to <70MHz)
  - $\pm 30\text{ppm}$  min to  $\pm 50\text{ppm}$  max (70MHz to 200MHz)

### Electrical Parameters

- Load Capacitance (CL): 8.0pF to 30.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 2uW typ, 0.1mW max

### Operating Temperature Ranges

- 10 to 60°C
- 40 to 85°C

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Vibration: MIL-STD-202F, Method 204D, Condition D 20g, frequency range 10~2000Hz in X, Y and Z axis for 4 hours in each direction. (total 12 hours)
- Drop-Test: dropped 3 times from a height of 75cm onto a hard wooden board.

### Manufacturing Details

- RoHS Terminations: Ni 1.27~8.89um, Au 0.3~1.0um

### Ordering Information

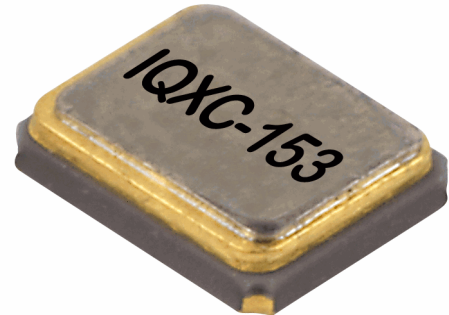
- Minimum ordering information\*
  - Frequency\*
  - Model\*
  - Frequency Tolerance\*
  - Frequency Stability\*
  - Operating Temperature Range\*
  - Load Capacitance\*
- Example
  - 20.0MHz IQXC-153
  - 50/50/-10 to 60C/8 FUND

### Compliance

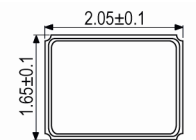
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: Cutt: Cut tape  
Pack Size: 100
- Pack Style: Reel: Tape & reel in accordance with EIA-481D  
Pack Size: 3,000

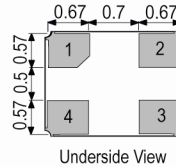
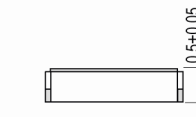


### Outline (mm)

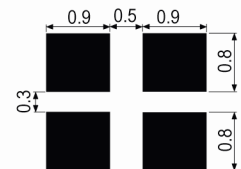


#### Pad Connections

- Crystal
- GND
- Crystal
- GND



#### 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
20.0MHz	35.999999MHz	-10 to 60 -40 to 85	±10 ±15	Fundamental	100 100
36.0MHz	69.999999MHz	-10 to 60 -40 to 85	±10 ±15	Fundamental	80 80
70.0MHz	200.0MHz	-10 to 60 -40 to 85	±30 ±30	Fundamental	60 60

\*Stability Maximum values ±50ppm

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