ISSUE 1; March 2019

Description

- The IQXC-136 is a low profile SMD AT-cut quartz crystal in a ceramic package with a 3.2 x 2.5mm footprint.
- Applications:
  Feature phone
  GPS
- Features:
  Excellent shock and vibration performance
  Low ageing

Frequency Parameters

- Frequency 16.0MHz to 40.0MHz
- Frequency Tolerance ±10.00ppm to ±50.00ppm
- Tolerance Condition @ 25°C ±2°C
- Frequency Stability ±15.00ppm to ±50.00ppm
- Ageing ±1ppm max per year @ 25°C
- Reflow shift (Two consecutive reflow as per profile after 4 hours recovery at 25°C): ±1ppm max
- Frequency stability over temperature referenced to frequency reading at 25˚C and the specified load capacitance.
- Frequency perturbations (Residual errors from the frequency versus temperature curve fitting 5th order. Minimum of 1 frequency reading every 3˚C over operating temperature range): 0.1 to 1ppm
- Static temperature hysteresis (Frequency change after reciprocal temperature ramped over the operating range. Frequency measured before and after at 25°C): ±0.4ppm max

Electrical Parameters

- Load Capacitance (CL) 5.0pF to 50.0pF
- Shunt Capacitance (C0) 0.5 to 3pF
- Drive Level 50µW max
- Load Capacitance Range: 5pF to 50pF
- Pullability (Load and crystal design dependant): 0.5ppm/pF min

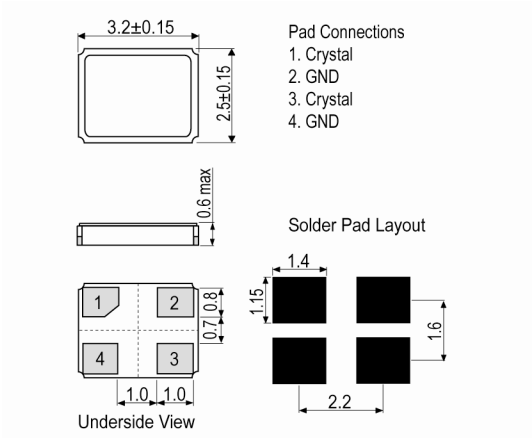
Operating Temperature Ranges

- -40 to 85°C
- -55 to 105°C

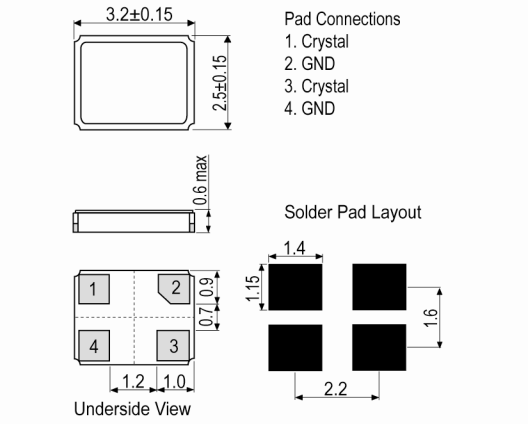
Environmental Parameters

- g Sensitivity Gamma vector of all three axes from 30Hz to 1500Hz: 2ppb/g max
- Insulation Resistance (100V ±15V at 25°C): 500MΩ min
- Shock: Half sine-wave acceleration of 100G peak amplitude for 11ms duration, 3 cycles in each plane
- Moisture Resistance: Temperature: 40ºC ±2ºC; Humidity : 90 ~ 95%; Time : for 240 hours; According to IEC 1178-1.4.8.15
- Thermal Shock: 100 temperature cycles, where each cycle consists of a 25 minute soak time at -40ºC followed by a 25 minute soak time at 85ºC, with a 60 second maximum transition time between temperatures. Air to air transition. According to IEC 1178-1.4.8.4
- Vibration: Frequency: 10~55Hz; Amplitude: 1.5mm; Period: 1min; Test time: X,Y,Z each direction 2hrs; According to IEC 1178-1.4.8.7
- Storage temperature: -40 to 85ºC

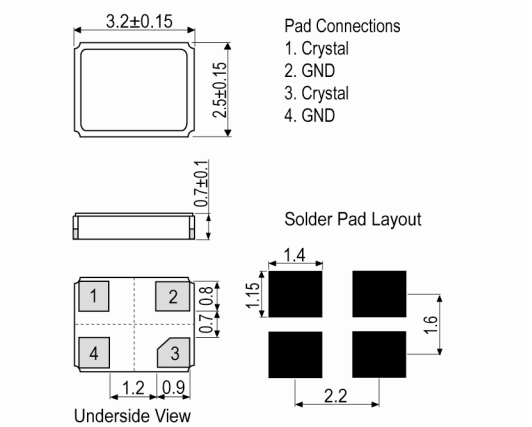
Outline (mm) 0.6mm type 1



Outline (mm) 0.6mm type 2



Outline (mm) = 0.7mm type 3



Sales Office Contact Details:
UK: +44 (0)1460 270200
USA: +1 760 318 2824
Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com

Manufacturing Details

- RoHS Terminations — Au (0.1 min) over Ni (1.27~8.89um)

Ordering Information

- *minimum information required
  Frequency*
  Model*
  Frequency Tolerance*
  Frequency Stability*
  Operating Temperature Range*
  Load Capacitance*

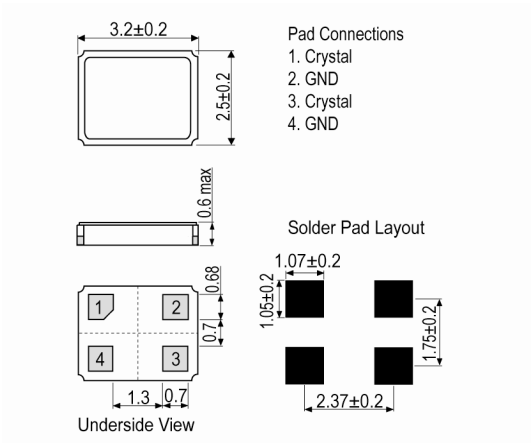
Compliance

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

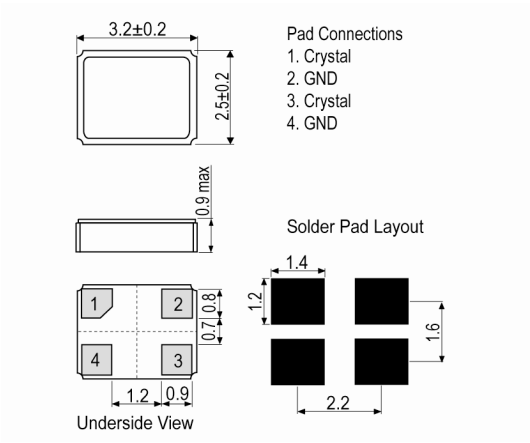
Packaging Details

- Pack Style: Reel — Tape & Reel in accrordance with EIA-481-D
  Pack Size: 3,000

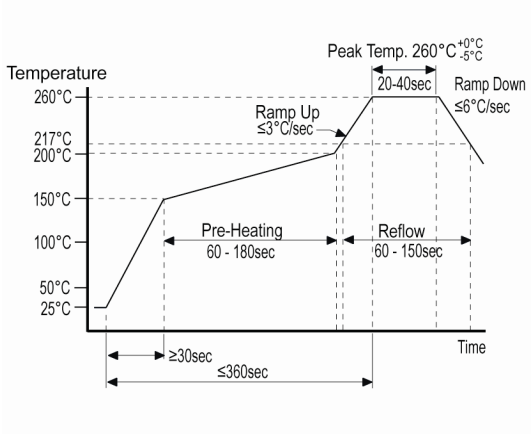
Outline (mm) = 0.6mm type 4



Outline (mm) = 0.9mm type 5



Pb-Free Reflow



Sales Office Contact Details:
UK: +44 (0)1460 270200
USA: +1 760 318 2824
Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
16.0MHz	40.0MHz	-40 to 85	±15	Fundamental	60
		-55 to 105	±20		60

**Stability Maximum values ±50ppm*

This document was correct at the time of printing; please contact your local sales office for the latest version.
Click to view latest version on our website.

Sales Office Contact Details:
UK: +44 (0)1460 270200
USA: +1 760 318 2824
Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com