


**Description**

- Surface mount Voltage Controlled Temperature Compensated Crystal Oscillator (VCTCXO) in a miniature 1.6 x 1.2mm surface mount package.
- Model IQXT-351
- Model Issue number 1

**Frequency Parameters**

- Frequency 52.0MHz
- Frequency Tolerance ±1.50ppm
- Tolerance Condition @ 25°C ±2°C
- Frequency Stability ±0.50ppm
- Operating Temperature Range -30.00 to 85.00°C
- Ageing ±1ppm max per year @ 25°C  
±3°C
- Developed Frequencies: 26.0MHz and 52.0MHz
- Supply Voltage Variation (±5% change @ 25°C): ±0.1ppm max
- Load Variation (±10% change @ 25°C): ±0.1ppm max
- IR Reflow Resistance (referred to frequency before reflow): ±1ppm max

**Electrical Parameters**

- Supply Voltage 1.8V ±5%
- Current Draw 2.000mA
- Absolute Maximum Supply Voltage: -0.6V to 4.6V

**Frequency Adjustment**

- Pulling ±8ppm to ±13ppm
- Control Voltage 0.9V ±0.8V
- Absolute Maximum Control Voltage: -0.6V to Vs+0.6V
- Slope: Positive

**Output Details**

- Output Compatibility Clipped Sine
- Drive Capability 10kΩ//10pF
- Output Voltage Level: 0.8V pk-pk min
- Output: DC coupled
- Start Up Time (Vout ≥ 90%Vpk-pk): 2ms max

**Noise Parameters**

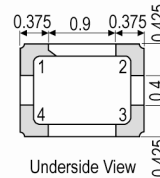
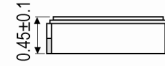
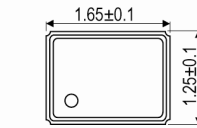
- Harmonic distortion: -5.0dBc max
- Phase Noise @ 25°C: -135dBc/Hz @ 1kHz typ

**Environmental Parameters**

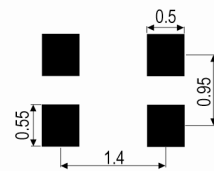
- Storage Temperature Range: -40 to 85°C

**Manufacturing Details**

- Reflow Process  
Preheating: 170°C±10°C for 1 to 2 minutes.  
Maximum reflow: 250°C±10°C for 10secs.
- A DC-cut capacitor is not built in to the oscillator; a 1000pF DC-cut capacitor is therefore required in the output line.
- RoHS Terminations AuNi
- RoHS Reflow Temp Maximum reflow: 250°C±10°C for

**Outline (mm)**


- Pad Connections
1. Voltage Control
  2. GND
  3. Output
  4. +Vs

**Solder Pad Layout**

**Sales Office Contact Details:**

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**Compliance**

- RoHS Status (2011/65/EU)      Compliant
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    Not Applicable

**Packaging Details**

- Pack Style: Reel      Tape and reel in accordance with  
Pack Size: 3,000      EIA-481-D
- *Alternative packing option available*

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