


**Description**

- IQXT-205-2-18 is a 2.0 x 1.6mm SMD Voltage Controlled Temperature Compensated Crystal Oscillator (VCTCXO) in a hermetically sealed package.
- Model IQXT-205-2-18
- Model Issue number 1
- Developed frequencies: 16.2, 16.368, 16.369, 19.2, 20.0, 24.0, 25.0, 26.0, 27.456, 28.925, 28.974, 30.0, 32.0, 33.6, 38.4, 48.0, 50.0 and 52.0MHz

**Frequency Parameters**

- Frequency 24.0MHz
- Frequency Tolerance Max ±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
- Frequency Tolerance: Referred to nominal frequency before reflow soldering.
- Supply Voltage Variation:
  - @ ±5% change for ±0.5ppm stability: ±0.1ppm max
  - @ ±5% change for ±2.0ppm stability: ±0.2ppm max
- Load Variation:
  - @ ±10% change for ±0.5ppm stability: ±0.1ppm max
  - @ ±10% change for ±2.0ppm stability: ±0.2ppm max
- Short Term Stability (Allan variance): ±1ppb max (Tau = 0.1s)
- IR Reflow Resistance (ref to frequency before reflow): ±1ppm max

**Electrical Parameters**

- Supply Voltage 1.8V ±5%
- Current Draw Max 1.500mA
- Absolute Maximum Ratings:
  - Supply Voltage: -0.6V to 4.6V
  - Control Voltage: -0.6V to Vs+0.6V

**Frequency Adjustment**

- Pulling ±8ppm min to ±13ppm max
- Control Voltage 0.9V ±0.8V
- Slope: Positive

**Output Details**

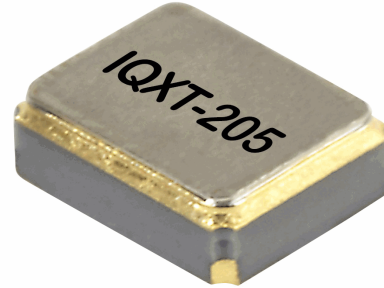
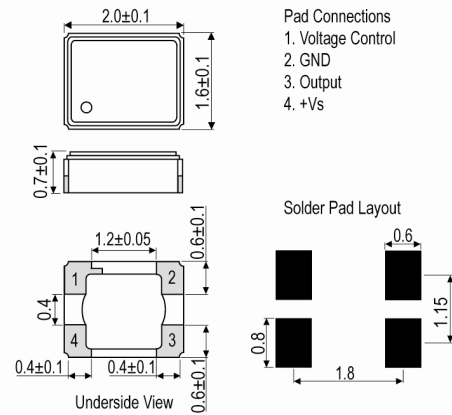
- Output Compatibility Clipped Sine
- Drive Capability 10kΩ//10pF
- Output: DC coupled
- Output Level: 0.8V pk-pk min
- Start Up Time (90% of V pk-pk): 2ms max
- Start Up Time (within ±0.5ppm): 2ms max

**Noise Parameters**

- Phase Noise (typ): -135dBc/Hz @ 1kHz
- Harmonic Distortion: -5.0dBc max

**Environmental Parameters**

- Storage Temperature Range: -40 to 85°C


**Outline (mm)**

**Sales Office Contact Details:**

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**Manufacturing Details**

- RoHS Terminations NiAu
- RoHS Reflow Temp +250°C ±10°C for 10 sec max

**Compliance**

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

**Packaging Details**

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

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