


**Description**

- Temperature compensated voltage controlled crystal oscillator (TCVCXO)
- Model IQXT-210-3
- Model Issue number 2

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Tolerance  $\pm 0.50$ ppm
- Tolerance Condition @ 25°C, 3.3V & VC=1.5V
- Frequency Stability  $\pm 0.14$ ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing  $\pm 0.02$ ppm max per day,  $\pm 1$ ppm max per year
- Frequency Tolerance (measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and within 30 days after ex-works)
- Frequency Stability: TA varied across the operating temperature range, measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V, load=15pF and temperature variable speed less than 2°C per minute.
- Ageing: TA=25°C, Vs=3.3V, VC=1.5V and after 1hr of operation.
- Supply Voltage Variation (measurement referenced to frequency observed with TA=25°C, Vs varied from 3.13V to 3.47V, VC=1.5V and load=15pF):  $\pm 0.1$ ppm max
- Load Variation (5% load change measurement referenced to frequency observed with TA=25°C, Vs=3.3V, VC=1.5V and load=15pF):  $\pm 0.1$ ppm max
- Short Term Stability (@ 25°C after 10mins power on): 5E-10/s typ @ 10MHz

**Electrical Parameters**

- Supply Voltage 3.3V  $\pm 5\%$
- Current Draw 10.00mA
- Current: TA=25°C, Vs=3.3V, VC=1.5V and load=15pF

**Frequency Adjustment**

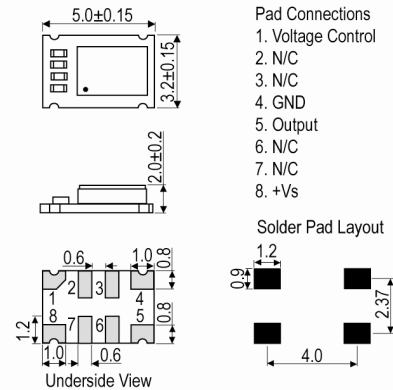
- Pulling  $\pm 10$ ppm to  $\pm 15$ ppm
- Control Voltage 1.5V  $\pm 1.5$ V
- Linearity:  $\pm 10\%$  max
- Slope: Positive
- Input Impedance: 100k $\Omega$  min

**Output Details**

- Output Compatability HCMOS
- Drive Capability 15pF
- Rise and Fall Time 8.0ns max
- Duty Cycle 45/55%
- Output Low (@ Vs=3.3V, load=15pF): 0.4V max
- Output High (@ Vs=3.3V, load=15pF): 2.4V min

**Noise Parameters**

- Phase Noise (@ 10MHz typ):
  - 90dBc/Hz @ 10Hz
  - 115dBc/Hz @ 100Hz
  - 135dBc/Hz @ 1kHz
  - 145dBc/Hz @ 10kHz
  - 148dBc/Hz @ 100kHz
  - 150dBc/Hz @ 1MHz

**Outline (mm)**

**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
 Germany: 0800 1808 443

France: 0800 901 383  
 USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
 Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Environmental Parameters**

- Storage Temperature Range: -55 to 105°C
- ESD Level:  
HBM, Class 2: 2000V to 4000V, JEDEC JS-001-2010  
Machine Model, Class B: 200V to 400V, JEDEC JS-001-2010
- Shock: IEC 60068-2-27, Test Ea: 100G acceleration for 6ms, half sinewave, in 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc: 10Hz-2000Hz, 0.75mm amplitude, 10G acceleration, 30mins per cycle, in 3 mutually perpendicular planes, test duration 2hrs

**Manufacturing Details**

- Moisture Sensitivity Level: 2
- Maximum Reflow Temperature: 260°C (30secs max)

**Compliance**

- RoHS Status (2011/65/EU)      Compliant
- REACH Status                      Compliant
- MSL Rating (JDEC-STD-033):    2

**Packaging Details**

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 1
- *Alternative packing option available*

---

**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [TCVCXO Oscillators](#) category:*

*Click to view products by [IQD](#) manufacturer:*

Other Similar products are found below :

[FOX923CH-19.20M](#) [SIT5000ACC8E-33VQ-19.200000X](#) [KT7050A10000KAW33TAD](#) [LFTVXO009900BULK](#) [LFTVXO076348CUTT](#)  
[LFTVXO076344CUTT](#) [KT2016K27600ZAW18TCS](#) [LFTVXO076346CUTT](#) [LFTVXO076343CUTT](#) [LFTVXO072344CUTT](#)  
[LFTVXO076349CUTT](#) [KT1612A26000ACW28TAN](#) [LFTVXO009907BULK](#) [AST3TQ53-V-10.000MHz-5-C](#) [AST3TQ53-V-20.000MHz-5-C](#)  
[ASVTX-12-A-16.369MHZ-I15-T](#) [ASVTX-13-A-19.200MHZ-D15-T](#) [ASVTX-13-A-26.000MHZ-D15-T](#) [LFTVXO009912BULK](#)  
[LFTVXO009917BULK](#) [LFTVXO009919Bulk](#) [LFTVXO009920BULK](#) [LFTVXO063787BULK](#) [LFTVXO070167Cutt](#) [LFTVXO070168Cutt](#)  
[LFTVXO070186Cutt](#) [LFTVXO009915BULK](#) [TCD4029-26.0M](#) [THD3004-16.384M](#) [LFTVXO009900](#) [LFTVXO009901BULK](#) [ASVTX-09-](#)  
[19.440MHZ-T](#) [FOX801BELF-100](#) [FOX801BELF-200](#) [LFTVXO009919](#) [LFTVXO009915](#) [LFTVXO009917](#) [LFTVXO009920](#)  
[LFTVXO063705](#)