


Description

- Temperature compensated crystal oscillator (TCXO)
- Model IQXT-210-1
- Model Issue number 2

Frequency Parameters

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

Electrical Parameters

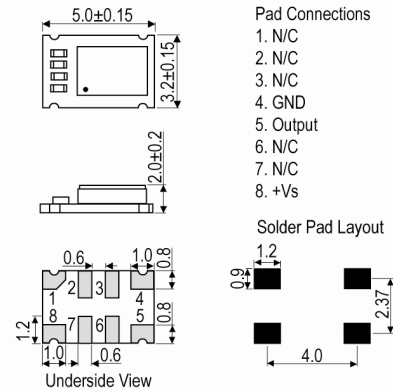
- Supply Voltage $3.3\text{V} \pm 5\%$
- Current Draw 10.00mA
- Current: $T_A=25^{\circ}\text{C}$, $V_s=3.3\text{V}$ and load= 15pF

Output Details

- Output Compatability HCMOS
- Drive Capability 15pF
- Rise and Fall Time 8.0ns max
- Duty Cycle $45/55\%$
- Output Low (@ $V_s=3.3\text{V}$, load= 15pF): 0.4V max
- Output High (@ $V_s=3.3\text{V}$, 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
 Web: www.iqdfrequencyproducts.com

Environmental Parameters

- Storage Temperature Range: -55 to 105°C
- ESD Levels: JEDEC JS-001-2010:
HBM, Class 2: 2000V to 4000V
Machine Model, Class B: 200V to 400V
- 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

- Maximum Process 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*

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