

**Customer Part:**

**Description**

- Voltage Controlled Temperature Compensated Crystal Oscillator (TVXO)
- Model IQXT-200-46
- Model Issue number 1

**Frequency Parameters**

- Frequency 19.20MHz
- Frequency Tolerance  $\pm 1.00\text{ppm}$
- Frequency Stability  $\pm 0.28\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $105.00^\circ\text{C}$
- Ageing  $\pm 0.01\text{ppm}$  max per day,  $\pm 1\text{ppm}$  max/year
- Frequency Tolerance (measurement referenced to frequency observed with  $T_A=25^\circ\text{C}$ ,  $V_s=3.3\text{V}$ ,  $V_C=1.65\text{V}$  within 30 days after ex-works)
- Frequency Stability:  $T_A$  varied across the operating temperature range, measurement referenced to frequency observed with  $T_A=25^\circ\text{C}$ ,  $V_s=3.3\text{V}$ ,  $V_C=1.65\text{V}$ , load= $15\text{pF}$  and temperature variable speed less than  $2^\circ\text{C}$  per minute.
- Ageing:  $T_A=25^\circ\text{C}$ ,  $V_s=3.3\text{V}$ ,  $V_C=1.65\text{V}$  and after 1hr of operation.
- Supply Voltage Variation (measurement referenced to frequency observed with  $T_A=25^\circ\text{C}$ ,  $V_s$  varied from  $3.13\text{V}$  to  $3.47\text{V}$ ,  $V_C=1.65\text{V}$  and load= $15\text{pF}$ ):  $\pm 0.05\text{ppm}$  max
- Load Variation (5% load change measurement referenced to frequency observed with  $T_A=25^\circ\text{C}$ ,  $V_s=3.3\text{V}$ ,  $V_C=1.65\text{V}$  and load= $15\text{pF}$ ):  $\pm 0.05\text{ppm}$  max

**Electrical Parameters**

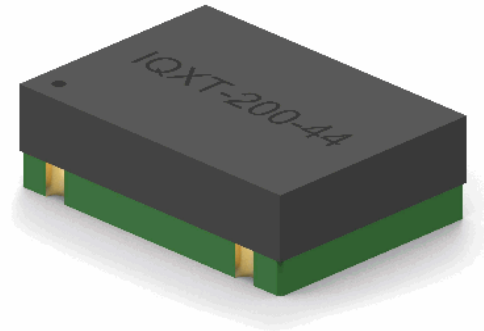
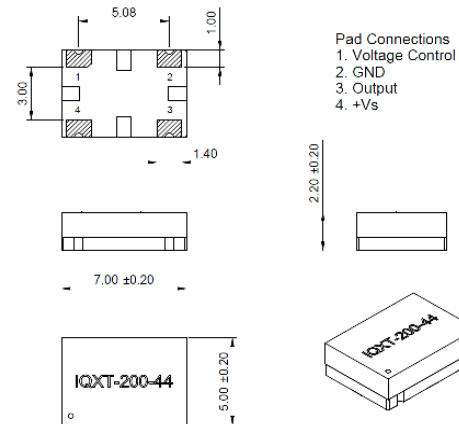
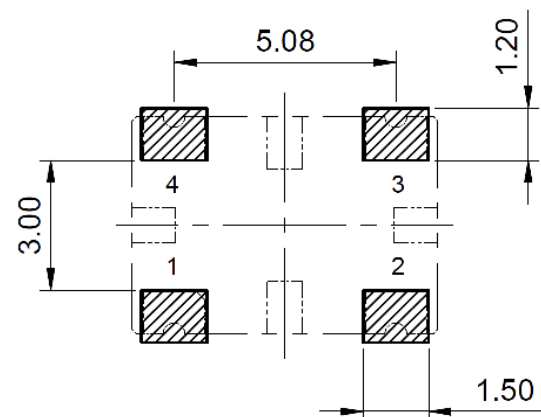
- Supply Voltage  $3.3\text{V} \pm 5\%$
- Current Draw  $10.000\text{mA}$  max
- Current: @  $T_A=25^\circ\text{C}$ ,  $V_s=3.3\text{V}$ ,  $V_C=1.65\text{V}$  and load= $15\text{pF}$

**Frequency Adjustment**

- Pulling  $\pm 8\text{ppm}$  min
- Control Voltage  $1.65\text{V} \pm 1.65\text{V}$
- Input Impedance  $100\text{k}\Omega$  min
- Linearity:  $\pm 10\%$  max
- Slope: Positive

**Output Details**

- Output Compatibility HCMOS
- Drive Capability  $15\text{pF}$
- Rise and Fall Time  $5.0\text{ns}$  max
- Duty Cycle  $45/55\%$  max
- Output Voltage Levels (@  $V_s=3.3\text{V}$  and load= $15\text{pF}$ ):  
Output Low ( $V_{oL}$ ):  $0.4\text{V}$  max  
Output High ( $V_{oH}$ ):  $2.4\text{V}$  min


**Outline (mm)**

**Recommended Solder Pad Layout**

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