


**Description**

- Voltage controlled crystal oscillator in a ceramic package with a hermetically sealed metal lid
- Model IQXV-50
- Model Issue number 1

**Frequency Parameters**

- Frequency 45.50MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing (@  $25^\circ\text{C}$ ):  $\pm 3\text{ppm max}$

**Electrical Parameters**

- Supply Voltage  $5.0\text{V} \pm 5\%$
- Current Draw  $30.00\text{mA}$

**Frequency Adjustment**

- Pulling  $\pm 100\text{ppm min}$
- Control Voltage  $2.5\text{V} \pm 2.0\text{V}$
- Input Impedence  $100\text{k}\Omega$  min
- Linearity:  $\pm 10\%$  max

**Output Details**

- Output Compatability HCMOS
- Drive Capability  $15\text{pF max}$
- Rise and Fall Time  $5.0\text{ns max}$
- Duty Cycle  $45/55\%$
- Start Up Time:  $10\text{ms max}$

**Output Control**

- Standby Operation:  
 Logic '1' ( $>70\%$  Vs) to pad 2 enables oscillator output  
 Logic '0' ( $<30\%$  Vs) to pad 2 disables oscillator output: when disabled the oscillator output goes to the high impedance state  
 No connection pad 2 enables oscillator output

**Output Levels**

- VoH:  $>90\%$  of Vs
- VoL:  $<10\%$  of Vs

**Noise Parameters**

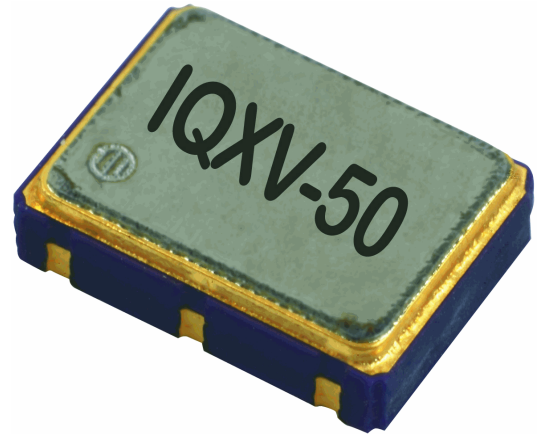
- Period Jitter (pk-pk):  $100\text{ps max}$
- Period Jitter (one sigma):  $25\text{ps max}$

**Environmental Parameters**

- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Vibration:  $1.5\text{mm}$  amplitude,  $10$ - $55$ - $10\text{Hz}$ , full sine wave,  $2\text{mins}$  in  $3$  mutually perpendicular planes, duration  $2\text{hrs}$  in each plane
- Drop:  $1.2\text{m}$  drop ( $3$  times) onto a hard surface

**Compliance**

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


**Outline (mm)**


Underside View

- Pad Connections
1. Voltage Control
  2. Standby Operation
  3. GND
  4. Output
  5. N/C
  6. +Vs

**Solder Pad Layout**

**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)

**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)